THE CONTRIBUTIONS OF JOINT CONSTRUCTION TO INTERMEDIATE-LEVEL ESL STUDENTS' INDEPENDENT WRITING: A MIXED-METHODS ANALYSIS

by

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A dissertation submitted to the Faculty of the University of Delaware in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Education

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A MIXED-METHODS ANALYSIS

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TABLE OF CONTENTS

LIST OF TABLES xi
LIST OF FIGURES xiii
ABSTRACT xiv

Chapter

1 INTRODUCTION 1

Genre-Based Writing Pedagogy 4
Second Language Writing 8
Mixed-Methods Design 9
Research Questions 11
Overview of the Dissertation 12

ENDNOTE 13

2 LITERATURE REVIEW 14

The Teaching/Learning Cycle 14

History of the TLC 15
Teaching in the TLC 18
Learning in the TLC 25

Language Choices 26
Quality, Staging, and Genre Awareness 33

Summary of Research into the TLC 36

Joint Construction 37
Collaborative Writing 40

Scaffolding During Peer Collaborative Writing 40
Products of Collaborative Writing 45
Effects of Collaborative Writing on Independent Writing 49

Interaction and “Languaging” 52
Conclusion 54

ENDNOTES 57

3 METHODOLOGY 59

Participants 61

Teaching Context 61
Random Assignment 62
Students 62
Teachers 67

Materials and Procedures 67
Data Collection 74
Quantitative Measures 77

Quality 77

Genre Completion 77
Descriptive Quality 78

Language Proficiency 81
Length 81
Complexity 81

Lexical Complexity 84
Grammatical Complexity 86

Clausal Complexity 86
Relative Clauses 90
Noun Phrase Elaboration 92

Data Analysis 93

Quantitative Analyses 94

Pretest 94
Posttest Writing 95
Power Analysis 95

Qualitative Analyses 96

Joint Construction Transcripts 96
Evidence of Transfer 98
Genre Analysis of Writing 101

Survey and Interviews 101
Data Integration 102

Pilot Studies 104
Summary of the Methodology 114

ENDNOTES 115

4 QUANTITATIVE RESULTS AND DISCUSSION 117

Initial Group Comparisons 117
Fidelity 121
Quantitative Results 123

Quality 123
Length 129
Complexity: Vocabulary 130
Complexity: Grammar 131
Jointly Constructed Texts 134
Summary of Quantitative Results 136

Student Surveys 136
Discussion 140

ENDNOTE 145

5 QUALITATIVE RESULTS AND DISCUSSIONS 146

Phases of Joint Construction 147
Dynamics of Joint Construction 150

Teacher Scaffolding 152
Student Participation 158
Language-Related Episodes (LREs) 160
Summary: Dynamics of Joint Construction 163

Four Quadrants of Scaffolding 164

Student Control / Explicit Attention to Form 167
Student Control / Focus on Meaning 171
Teacher Control / No Explicit Focus on Form 173
Teacher Control / Explicit Focus on Form 177
Summary: Quadrants of Scaffolding 182

Prototypical Joint Constructions 182

Participatory Co-Construction: Section H 184
Think Aloud: Section GG 186
Guided Writing: Section C 189
Meaning-Focused Co-Construction: Section EE 191
Prototypes: Summary 194

Transfer from Joint Construction to Independent Writing 194

Content Transfer 199
Lexical Transfer 205
Transfer from Language-Related Episodes 208
Transfer Analysis: Summary 213

Summary of Qualitative Results 213

ENDNOTES 215

6 CONCLUSIONS 216

Research Question 1 216
Research Question 2 219
Research Question 3 221
Limitations 225
Implications for Research 233
Implications for Pedagogy 235
Conclusion 237

REFERENCES 238

Appendix

A INSTITUTIONAL REVIEW BOARD APPROVAL 264
B TEACHER LETTER OF CONSENT 266
C STUDENT LETTER OF CONSENT 269
D INSTRUCTIONAL UNIT 272
E LESSON PLANS 289

Treatment Class Lesson Plans (Morning Sections) 289
Treatment Class Lesson Plans (Afternoon Sections) 293
Control Class Lesson Plans (Morning Sections) 296
Treatment Class Lesson Plans (Afternoon Sections) 300

F STUDENT SURVEY 304
G TEACHER INTERVIEW PROTOCOL 306

H GENRE COMPLETION RUBRIC 307
I GENRE COMPLETIONANCHOR PAPERS 308
J PRETEST QUALITY RUBRIC 314
K PRETEST ANCHOR PAPERS 317
L POSTTEST QUALITY RATING RUBRIC 321
M POSTTEST ANCHOR PAPERS 325
N LANGUAGE PROFICIENCY RUBRIC 330
O LANGUAGE PROFICIENCY ANCHOR PAPERS 332
P RELATIVE CLAUSE ACCURACY RUBRIC 334
Q PILOT STUDY INSTRUCTIONAL MATERIALS: PRODUCT REVIEW UNIT 337
R STRATIFIED SAMPLE OF TREATMENT POSTTESTS 346
S PERMISSIONS 353

LIST OF TABLES

Table 1 Distribution of Participating Students by Section and Session 65

Table 2 Pretest Comparison of Treatment and Control Groups 66

Table 3 Data Collection and Measures by Research Question 76

Table 4 Complexity Measures 83

Table 5 Survey Responses 102

Table 6 March, 2015, Pilot Study Descriptive Statistics 105

Table 7 Student Demographics by Condition 120

Table 8 Pretest Comparisons 120

Table 9 Time Use During Joint Construction 123

Table 10 Genre Completion 124

Table 11 Descriptive Quality Scores at Posttest 125

Table 12 Descriptive Statistics Comparing Quality by Language Proficiency 126

Table 13 Genre Completion Compared by Students' Language Proficiency 128

Table 14 Descriptive Quality Scores for Treatment Classes 129

Table 15 Posttest Length 129

Table 16 Lexical Diversity at Posttest 130

Table 17 Adjective Use at Posttest 131

Table 18 Clausal Complexity at Posttest 132

Table 19 Relative Clause Use 133

Table 20 Nominal Complexity 134

Table 21 Jointly Written Texts: Descriptive Statistics 135
Table 22 Student Survey Results: Satisfaction with the Instructional Unit 139
Table 23 Student Survey Results: Satisfaction with Joint Construction 140
Table 24 Phases of Joint Construction (adapted from Dreyfus et al., 2008) 149
Table 25 Teacher Scaffolding During Joint Construction 154
Table 26 Scaffolding Techniques by Section 157
Table 27 Student Participation in Scaffolding 159
Table 28 Student Participation Across Sections 160
Table 29 Language-Related Episodes 162
Table 30 Language-Related Episodes in Joint Constructions by Section 163
Table 31 Prototypes of Joint Construction 184
Table 32 Content and Language Element Transfer by Section 197
Table 33 Stratified Sample of Treatment Posttest Writing 198
Table 34 Genre Analysis of the Featured House Article 200
Table 35 Language Elements in the Joint Constructions 212

LIST OF FIGURES

Figure 1 The Teaching/Learning Cycle 5

Figure 2 Patterns of Interactions in Dyadic Collaborative Writing 42

Figure 3 Research Design Diagram 72

Figure 4 Quadrants of Scaffolding 166

ABSTRACT

The Teaching/Learning Cycle (TLC) is an approach to teaching written genres in which the teacher guides students through stages of Deconstruction (analysis of models) and Joint Construction (whole-class collaborative writing) before students write independently in the target genre. While the TLC has been widely implemented in many different countries and educational settings, the individual stages have not been empirically studied. This dissertation focuses on the central stage, a collaborative writing activity in which the teacher and class jointly construct an exemplar text. The study begins to fill gaps in two bodies of literature: research into collaborative writing has explored pair writing in great depth but paid little attention to whole-class writing; in addition, there is a lack of controlled empirical research into the TLC in general and Joint Construction in particular.

This dissertation investigates the unique contribution that Joint Construction makes to the TLC compared to a modelling-only control condition. Specifically, the research questions ask whether students' independent writing is better in quality, length, or linguistic complexity after Joint Construction; what types of scaffolding occur during Joint Construction; and what students transfer from the Joint Construction task to their subsequent writing. A quasi-experimental, mixed methods study was conducted using intact classes of intermediate-level English as a Second Language students enrolled in an Intensive English Program in the United States. Sixteen class sections participated over the course of two teaching sessions; 119 students were included in the quantitative analyses. Teachers implemented an

instructional unit that taught a descriptive writing genre (a featured house newspaper article). In treatment sections, Joint Construction was conducted between the analysis of models and independent writing; in control sections, an additional modeling task took place. Students' pre- and posttest writing samples were analyzed for genre completion, descriptive writing quality, length, vocabulary diversity, and grammatical complexity. Transcripts of the recorded Joint Construction classes were analyzed qualitatively to understand the nature of the scaffolding which occurred. Finally, a stratified sample of posttests from the treatment condition was analyzed functionally to trace the specific impact of Joint Construction on the students' independent writing.

A significant benefit was found for Joint Construction in genre completion and the number of different descriptive adjectives used; the difference between conditions for lexical diversity approached significance. These patterns are consistent with the focus of the Joint Construction lessons, in which teachers and students negotiated the structure of the text in depth and paid close attention to vocabulary. In addition, there is evidence of creative transfer of both ideational and linguistic elements from the Joint Construction to subsequent independent writing. The Joint Construction episodes solicited a wide range of scaffolding techniques, which are categorized in this study along axes of control (teacher or student) and focus on form (explicit or implicit). Prototypical Joint Constructions are hypothesized and explicated using examples from the data. Implications for research include the use of mixed methodology to understand the process and product of collaborative writing. Pedagogically, this dissertation suggests techniques teachers can use to effectively implement Joint Construction.

Chapter 1

INTRODUCTION

Writing, as Zinsser (1976) observed, is hard. This difficulty is compounded for those learning to write in a second language (L2) due to the "cognitive, linguistic, social, cultural, educational, and affective factors that distinguish L2 writers, writing processes, and texts" (Ferris & Hedgcock, 2013, p. 24). However, partly as a consequence of a shift in focus of the teaching of English as a Second Language (ESL) and other second or foreign languages towards communicative approaches in the 1970s and 1980s, writing became "the last skill to be taught" (Williams, 2012) and was often treated as little more than an opportunity to demonstrate a language feature students had learned through the oral mode, which was considered primary. It was through reading, listening, and especially oral interaction that language was presumed to be acquired. This belief echoed the already established trend in K-12 mainstream education towards progressivist and whole-language approaches (Martin, 2006), which systematically attempted to reduce the teacher's role in the classroom (Hyland, 2003), leading to what Halliday has termed an attitude of "benevolent inertia" (Halliday & Hasan, 2006, p. 24). Although writing was not entirely neglected, expressivist theories of composing dominated, in which learners were largely left to exploit their own linguistic and rhetorical resources and putatively discover new forms (Hyland, 2003) as if learning, Halliday criticizes, would take place "by magic" (Halliday & Hasan, 2006, p. 24).

The result of both trends was that the students who most needed writing instruction were least likely to receive it. Researchers writing from very different theoretical perspectives have argued that children need structured, explicit, teacher-led instruction in high-stakes written genres as early as possible (Halliday & Hasan, 2006; Harris & Graham, 2009; Hyland, 2003; MacArthur, 2011; Rose & Martin, 2012). Non-mainstream and ESL learners may well lack the social and cultural capital of familiarity with the prized genres of schooling, such as narratives instead of simple recounts and complex arguments that address and respond to counter-arguments (Delpit, 2006; Ferretti, MacArthur, & Dowdy, 2000; Rothery, 1996). A whole-language or strongly communication-centric approach does little to apprentice learners into the "language of schooling" (Schleppegrell, 2004). At the same time, a lack of attention to writing in ESL instruction at all levels—K-12, tertiary, and adult education—exacerbates the academic challenges for immigrant, bilingual, and international students in school systems such as the U.S. context, where writing serves as both as access and gateway to higher qualifications (Ortmeier-Hooper, 2013; Silva, 1997). In Stanovich's (1986) oft-cited formulation, the result is a "Matthew effect," in which the rich get richer, while the poor (in the rhetorical and linguistic knowledge that forms the cultural capital of mainstream education) get poorer.

Various areas of education have sought to redress this balance from their own theoretical, methodological, and pedagogical perspectives: literacy studies, composition studies, bilingual education, second language acquisition (SLA), educational linguistics, and second language writing (SLW). Two of these approaches are relevant to this study: cognitive strategy writing instruction as implemented primarily in L1 literacy studies in the United States (MacArthur, 2011) and the genre

theory developed by educational linguists working in the tradition of Halliday in Sydney (Halliday & Hasan, 2006; Rose & Martin, 2012). Important differences in both theory and practice exist between these two models, and this dissertation does not attempt to reconcile them. Nonetheless, the following principles common to both inform the rationale of this project (Harris & Graham, 2009; MacArthur, 2011; Rose & Martin, 2012; Rothery, 1996):

1. Students benefit from front-loaded, explicit instruction in the purpose, patterns of organization, and linguistic resources expected in high-stakes genres.

2. Models of successful (and sometimes unsuccessful) texts in the target genre should be read, evaluated, and analyzed.

3. The teacher, in the role of an expert, can provide effective modeling of the process of producing texts in the target genre.

4. Student engagement with and interaction over texts in the target genre and the writing strategies needed to write them are necessary precursors to individual writing.

5. All learners benefit from "genre knowledge" (Johns, 2002): an understanding that genres exist, vary, and matter. This may be realized through a focus on evaluative criteria, social purpose, and/or differences among target genres.

Beyond these points of similarity, the Sydney School[1] foregrounds the linguistic resources and choices with which writers construe meanings in written genres (Martin, 2009, 2014). On the other hand, cognitive strategy instruction has focused on the importance of self-regulation throughout the writing process, which is perhaps implicit but rarely prominent in genre-based methods and research (Harris & Graham, 2009; MacArthur, 2011). Many other important similarities and differences exist that are beyond the scope of this dissertation. However, in essence both

approaches to writing instruction can be summarized as evidence-based, theoretically-motivated, practical solutions to the problem of teaching writing to students who would otherwise struggle.

Genre-Based Writing Pedagogy

This study is situated within the Sydney School's curriculum model, known as the Teaching/Learning Cycle, or TLC, depicted in Figure 1 (Derewianka, 1991; Feez, 1998; Martin, 2009; Rothery, 1996). The TLC serves as a convenient and efficient heuristic for designing effective materials that are appropriate to the study population and context described below and allows for the integration of rhetorical and grammatical concerns (Hyland, 2003; Johns, 2011). Most importantly, the TLC provides a well-established framework for the activity which is under study in this dissertation: whole-class collaborative writing. This classroom task is sometimes also part of cognitive strategy instruction, although with a somewhat different focus (e.g., Graham, Harris, & Mason, 2005). In both approaches, the teacher writes a new text in the target genre collaboratively with the students, thus making the genre and the strategies for producing it visible. However, as will be seen in Chapter 2, no research to date has specifically asked what students learn from participating in this activity.

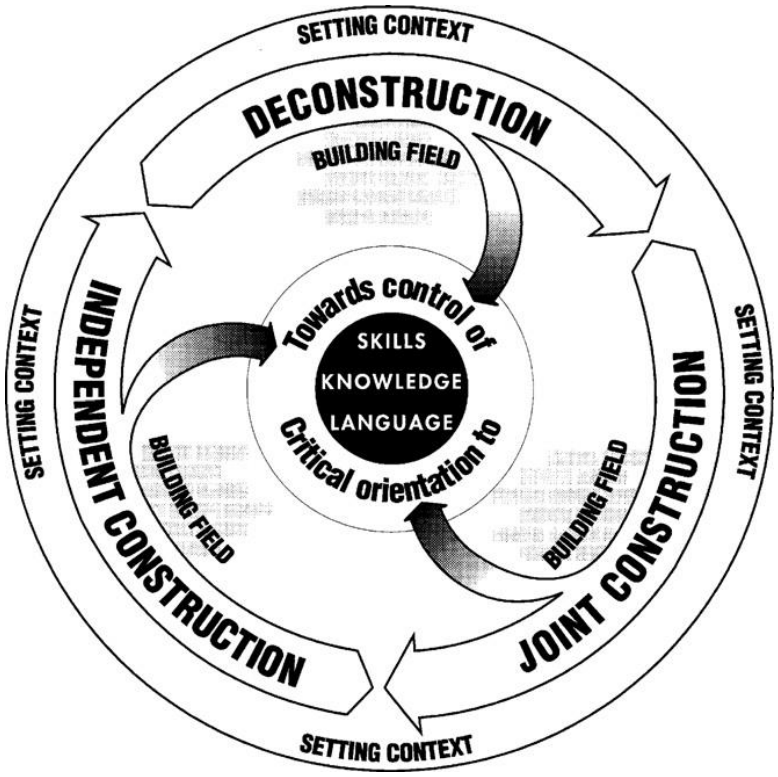


Figure 1 The Teaching/Learning Cycle

Note. Martin's (2009) version based on work by Derewianka, 1991, Feez, 1988, and Rothery, 1996)

The controlling principle of the TLC is "guidance through interaction in the context of shared experience" (Martin, 2009, p. 15). In practice, this leads to a highly scaffolded method of teaching writing (Figure 1). The organization of and linguistic choices that construe a genre are made explicit to learners through analysis of mentor texts (Deconstruction), following which teachers and students together compose a new text in the target genre (Joint Construction), and only then do students write their own texts (Independent Construction). The TLC positions the learner as a novice who is scaffolded by the expert teacher towards mastery and critical control of the target genre (Martin, 2009). The TLC has been successfully implemented in elementary and secondary schools, especially in Australia (Feez, 1998, 1998; Rose & Martin, 2012; Rossbridge & Rushton, 2014; Rothery, 1996) but also more recently in the North America. (de Oliveira & Iddings, 2014a; Gebhard, Shin, & Seger, 2011), and in universities and graduate programs, mostly in Australia and Asia (Dreyfus, Macnaught, & Humphrey, 2008; Mahboob, 2014; Martin, 2011; Yasuda, 2015).

Despite the centrality of whole-class collaborative writing to the TLC, the Joint Construction has received relatively little attention in the empirical literature (Dreyfus et al., 2008). Examples of Joint Construction are illustrated in the context of training teachers to use the TLC (Brisk & Zisselberger, 2010; Gebhard, Willett, Jiménez Caicedo, & Piedra, 2010; Macnaught, Maton, Martin, & Matruglio, 2013) and in the classroom itself (de Oliveira & Lan, 2014; Rose & Martin, 2012; Rossbridge & Rushton, 2014; Rothery, 1996), but only a handful of empirical studies by one group of researchers have focused specifically on this stage (Dreyfus & Macnaught, 2013; Dreyfus et al., 2008; Humphrey & Macnaught, 2011). Meanwhile, in the cognitive

strategy literature, no study was located that analyzes just the collaborative modeling task.

The Joint Construction stage can be accomplished using many different collaborative activities, but the canonical choice is a teacher-led whole-class writing task (Feez, 1998; Gibbons, 2015). Typically, the teacher announces that she will help the class to write a new text in the target genre, which they have already analyzed in the Deconstruction stage. There is usually a planning component, which is consistent with research into the strategies of successful writers (Hayes & Flower, 1980), after which the teacher reminds the students about the staging, that is, the rhetorical organization of the genre. The teacher will then elicit words, phrases, and sentences from students, recasting or providing language and content as needed. As far as possible, through a process of negotiating both form and content (Pica, 1994), the students' ideas and language are used in the text. Students are encouraged to offer alternate phrasing and deliberate over the most effective choices. However, when the discussion falters or if students are unable to provide effective suggestions, the teacher can increase her scaffolding until the students can again participate actively in the writing (Dreyfus et al., 2008).

Joint Construction is believed to be effective because the nature of the scaffolding is likely to promote a collaborative dynamic (Storch, 2002) which appears to facilitate progress in both writing (Daiute & Dalton, 1993) and language acquisition (Storch, 2005). Research into peer and small-group collaborative writing has consistently found that while some students form truly collaborative partnerships when writing, others fall into expert/expert and expert/passive relationships, which likely lead to less improvement (Daiute & Dalton, 1993; Storch, 2005). In Joint

Construction, by contrast, the teacher is able to establish an expert/novice relationship that provides students appropriate scaffolding as needed (Dreyfus et al., 2008) while also offering the kinds of "cognitive apprenticeship" (Daiute & Dalton, 1993) that have been found to be effective in strategy instruction (MacArthur, 2011). For these reasons, a focus on the Joint Construction stage of the TLC is warranted theoretically and pedagogically.

Second Language Writing

This study investigates the effect of Joint Construction on intermediate-level adult ESL students enrolled in the University of Delaware's university-based intensive English program (IEP). This is an important population: there were over a million international students in the United States for the first time in 2015/2016, of whom 85,000 were non-degree students, a decrease from the previous year but still an increase of 22% in five years (Institute of International Education, 2016). Many non-degree students enroll in IEPs to improve their English before starting undergraduate and graduate degree programs; this path provides more than 70% of the international undergraduates at the University of Delaware (Caplan & Stevens, 2017). Although all language skills are important for university-bound ESL students, writing is both necessary across disciplines (Melzer, 2009; Nesi & Gardner, 2012) and especially challenging for L2 writers, including international non-native speakers of English (Ferris, 2009; Silva, 1997).

The L2 writing classroom is a natural fit for collaborative writing tasks. Extensive research into SLA has explored the benefits of student-student and student-teacher interaction, especially in tasks that generate negotiation of language and meaning (Pica, 1994). Furthermore, SLA theories have drawn on and integrated both a

cognitive understanding of language learning and the social context in which students acquire a second or additional language (Ortega, 2013). Finally, as second language writing (SLW) has emerged as an academic discipline in itself, the intersections between SLA and SLW have been explored (Ortega, 2012; Williams, 2012). Therefore, writing activities that provide well-documented opportunities for SLA are of particular interest, one of which is collaborative writing (Storch, 2013). Since the TLC incorporates scaffolded writing instruction with oral interaction in a language-oriented pedagogy that is designed to promote mastery of and critical control over high-stakes genres, it is highly compatible with IEPs' mission. Nonetheless, no research to date has studied the TLC in this context in the United States.

Mixed-Methods Design

This study employs a mixed-methods design to better understand the nature and effects of Joint Construction. This methodological choice is motivated by two perceived gaps in the literature (explored in detail in Chapter 2). First, there is little research to date into collaborative writing generally, and none into Joint Construction in particular, that has attempted to connect processes (the rich discussions over language and writing that occur during collaboration) and products (students' writing). Previous research has focused on what happens during Joint Construction (e.g., Dreyfus et al., 2008), while a separate area of research has explored ways in which texts written collaboratively by pairs of students are different from individually written ones (e.g., Wigglesworth & Storch, 2009) and–more rarely–the transfer from collaborative to subsequent independent writing (e.g., O'Donnell et al., 1985). However, the explicit purpose of Joint Construction is to turn the teacher's interactive guidance into uptake for the Independent Construction stage (Gibbons, 2015).

Furthermore, process research into collaborative writing is overwhelmingly qualitative, while product-focused studies more commonly use quantitative designs and analyses, presenting an opportunity for a mixed-methods approach to synthesize the two. No experimental or quasi-experimental studies have sought to trace students' learning from whole-class Joint Construction into their independent writing. A mixed-methods design is especially attractive for this purpose because it enables the purposeful integration of two different data sets: classroom transcripts (analyzed qualitatively) and student writing (analyzed both qualitatively and quantitatively).

The second gap in the literature also concerns the analysis of student writing. When writing is studied from a genre perspective, especially in the Sydney School, analyses are almost always qualitative. Researchers are interested in ways in which students instantiate the target genre and thus examine writing in terms of its staging and linguistic choices (e.g., de Oliveira & Lan, 2014; Gardner, 2012; Macnaught et al., 2013; Yasuda, 2015). On the other hand, writing research conducted in the fields of literacy and SLW more commonly (but not exclusively) employs quantitative methods to measure the effectiveness of teaching techniques and/or to track students' writing and language development over time (e.g., Connor-Linton & Polio, 2014; Graham et al., 2005). These differences are in part ideological. Scholars in the sociocultural SFL tradition view meaning as unfolding through the text in ways that cannot be meaningfully measured using metrics of complexity, accuracy, and fluency, nor captured in a single holistic rating (Martin, 2009; Schleppegrell, 2004). Researchers in literacy and SLA draw from both cognitive and constructivist perspectives (MacArthur, 2011; Pica, 1994), but a central belief is that students' development can be traced, at least to some extent, through quantifiable analyses of their writing. The

attraction of mixed methods for this topic is its "epistemological and paradigmatic ecumenicalism" (R. B. Johnson & Onwuegbuzie, 2004, p. 15), which may serve to bring together these different views of the same phenomenon to better capture the complexity of L2 writing. In fact, in concluding her review of research into the effectiveness of genre-based writing instruction, Tardy (2006) called for more mixed-methods research for this very reason.

Research Questions

The purpose of this study is to investigate the unique contribution of whole-class, teacher-led collaborative writing (Joint Construction) on intermediate-level adult ESL students' independent writing in the context of genre-based pedagogy. The research questions for the quasi-experimental, mixed-methods study are:

1. Is students' descriptive writing different in genre completion, descriptive quality, complexity, and/or length after participating in Joint Construction within the Teaching/Learning Cycle compared to genre-based instruction comprising Deconstruction of models alone?

2. What are the dynamics of the scaffolding that occurs during Joint Construction?

3. What elements of the Joint Construction and the collaboratively written text are taken up in students' subsequent independent writing?

The quantitative measures alluded to in Questions 1 and 3 as well as the qualitative procedures for the project are fully operationalized in Chapter 3. As will be seen in Chapter 2, prior research and theoretical frameworks suggest hypotheses for some of these questions. For Question 1, it seems likely that some students (those with the most cultural and linguistic capital, that is genre awareness and/or language proficiency) may write well without participating in the Joint Construction stage.

However, SFL research suggests they will still write better in some respects with the more robust version of the TLC than without it, and weaker or less well prepared students should benefit even more. In analyzing Question 2, I expect to refine the systems of scaffolding in the Joint Construction stage proposed in the literature (Dreyfus et al., 2008; Hammond & Gibbons, 2005). Finally, Question 3 has the purpose of hypothesis generation, since the connections between the process and outcomes of collaborative writing have not been systematically investigated. My hypothesis based on pilot data (Chapter 3 and reported in Caplan & Farling, 2016) is that some of the language and genre features negotiated and scaffolded during Joint Construction will be found in students' posttest writing. Furthermore, I expect students' writing to be stronger in terms of quality and genre completion as a result of participating in Joint Construction.

Overview of the Dissertation

Creswell and Plano-Clark (2011) advise mixed-method researchers to "adapt the structure of the written study to […] the type of mixed methods designs being used" (p. 253). In this quasi-experimental, balanced design, the qualitative and quantitative strands need to be analyzed individually and together. Therefore, after reviewing the relevant literature (Chapter 2) and describing the methodology (Chapter 3), rather than present the results and discussion in separate chapters as is conventional, I present the results and discussion for the quantitative strand in Chapter 4, followed by the results and discussion of the qualitative data in Chapter 5, where they are merged with the quantitative results. Finally, Chapter 6 concludes with answers to the three research questions, limitations, and implications for pedagogy and research.

ENDNOTE

[1] This was not a label chosen by Halliday, Martin, or their colleagues, but it has become synonymous with the SFL approach to genre, to the extent that Rose and Martin used it in the title of their 2012 book. Although the approach was developed primarily at the University of Sydney, it has been applied in other places, including Hong Kong, Brazil, Japan, and the U.K. It has only recently begun to have an impact on literacy and ESL education in North America, however (c.f. Martin's preface in de Oliveira and Iddings, 2014). It is not even mentioned as a sociocultural "alternative" to cognitivist SLA by Atkinson (2011) although SFL clearly fits this description.

Chapter 2

LITERATURE REVIEW

The purpose of this study is to investigate the unique contribution of the Joint Construction stage in the Sydney School's Teaching/Learning Cycle for genre-based writing instruction in the context of adult ESL education. Although no studies have directly addressed this question, several overlapping bodies of research provide a theoretical rationale for the current study. First, research into the TLC is reviewed, followed by the few studies that have investigated the Joint Construction stage, with a particular focus on the concept of scaffolding. Subsequently, two related areas of inquiry are reviewed that indicate the theoretical potential of this task: peer collaborative writing in both L1 and L2 and the interactionist hypothesis from SLA. Taken together, the literature suggests the nature of the scaffolding and, consequently, learning that might be expected during whole-class Joint Construction and that might not be evident in the modeling-only control condition.

The Teaching/Learning Cycle

While there is a substantial amount of theorizing about the SFL approach to genre (Gardner, 2012; Klein & Unsworth, 2014; Martin, 2009; Martin & Rose, 2008; Rose & Martin, 2012), as well as a growing number of useful guides for teachers (Christie & Derewianka, 2008; de Oliveira & Schleppegrell, 2015; de Silva Joyce & Feez, 2012; Derewianka & Jones, 2012; Feez, 1998; Schleppegrell, 2004), the body of empirical research on the application and effectiveness of the TLC is somewhat thin,

and even more so at the Joint Construction stage. This is a problem that is not limited to the Sydney School of genre-based writing instruction: Tardy (2006) noted in her extensive review that "studies of genre instruction have so far remained primarily theoretical and anecdotal" (p. 89). Of the 13 empirical studies that Tardy located, only one can be identified as using an SFL orientation (Hammond & Macken-Horarik, 1999). Since then, more research, has been produced, predominantly case studies and mostly in Australia and Asia but more recently also in North America (de Oliveira & Iddings, 2014b). This section begins with an overview of the development of the TLC and then considers the findings from studies of the TLC in terms of scaffolding and writing development.

History of the TLC

The TLC traces its roots to the Write It Right school literacy program of the 1980s and 1990s in New South Wales, Australia (Veel, 2008). The curriculum "macro-genre" that was designed through this project was first made widely available outside Australia through Rothery's (1996) chapter, in which she describes her work with two second-grade teachers in a "disadvantaged" elementary school in Sydney.[1] The model of the TLC designed by Rothery and colleagues (e.g., Derewianka, 1991; Feez, 1998) at the University of Sydney had four components: Building Field, Modeling or Deconstruction, Joint Construction, and Independent Construction (Gibbons, 2015, p. 110). (It is conventional in SFL to capitalize the names of the stages.) Martin's (2009) well-known revision (Figure 1) positions "Building Field" as surrounding all stages of the cycle, such that students are posited to be learning about the content of their writing assignments throughout the process, rather than as a precursor to writing (Veel, 2008). The centrality of Joint Construction to the TLC is

evident from Rothery's explanation, where she emphasizes the importance of using teacher scaffolding to reword sentences from an oral to a written mode (p. 105). What is striking in Rothery's description of both the early research in primary schools and her later work in middle schools is that she provides a thorough deconstruction of the key curriculum genres and broad statements about student learning but no actual evidence of outcomes.

The same pattern is evident in both Veel's (2008) and Rose and Martin's (2012) retrospectives on the Write It Right project's contributions to literacy instruction. The TLC along with the functions, staging, and linguistic resources of the genres of primary and secondary schooling are comprehensively described, but the impact of the pedagogy is presented much less rigorously. For instance, Rose and Martin observe that "at least one instance of the cycle benefited all students" (p. 64) without presenting empirical evidence. They then work through a case study of a single cycle in which a sixth-grade class learned how to write an exposition (argument) about compulsory voting. The jointly constructed text and one student's individual post-intervention writing are reproduced but not analyzed. They conclude that Joint Construction is "the most powerful classroom practice currently available as far as learning written genres is concerned" (p. 73).

Rose and Martin (2012) also make the claim that, under a genre pedagogy, "top students tend to grow at around 1.5 times their expected learning rates, while the weakest students accelerate at up to 5 times their expected rates" (p. 15). This would indeed be impressive. Regrettably, though, the sources cited in support comprise three program evaluations and one peer-reviewed article which was, in fact, a descriptive action research project among Indigenous health science undergraduates (Rose, Rose,

Farrington, & Page, 2008). Rose et al. followed three cohorts of students for one academic year as they learned to deconstruct and independently write texts in unspecified target genres. Writing was evaluated using a complex rubric based on SFL principles that yields a numerical score which "enables rates of literacy improvement to be objectively measured against expected rates in the educational sequence" (p. 171). These "expected rates" are not explained, nor is there a control group against which to measure the progress of students in the intervention. All three cohorts are described as showing "significant overall improvements" (p. 175), but no statistical tests are used, and it appears that not all student texts were rated: only a "representative" example from each of three groups, designated as low, average, or high proficiency on the basis of a "brief initial reading" (p. 172). Since only nine students' writing at three time points was analyzed, the study would in any case be vastly underpowered to detect a statistically significant change.

This is not to say that the TLC is ineffective, but rather to demonstrate the lack of a solid, experimental research basis. Examples in Rothery's (1996) chapter, Rose et al.'s (2008) paper, and Rose and Martin's (2012) book clearly show progress in individual students' ability to instantiate high-stakes genres at different levels of education. Furthermore, the pedagogy has proved popular among teachers and learners in Australia and beyond (Brisk & Zisselberger, 2010; Mahboob, Dreyfus, Humphrey, & Martin, 2010; Walsh, 2008). However, research support for the TLC consists primarily of qualitative case studies, with rare exceptions noted below. Case studies are not to be dismissed; they are vital for painting a detailed picture of teachers' practices and students' writing in what is now a wide array of educational contexts,

but it would be hard to generalize or make confident claims about outcomes. For this, experimental and quasi-experimental designs are needed.

Broadly, the focus of TLC research thus far falls into two categories: teachers' adoption of and practices during the cycle, including scaffolding strategies at the Joint Construction stage; and developments in students' writing. Excluded from the following review are the many useful deconstructions of academic genres, which are a pre-requisite for instruction in the TLC (e.g., Boche, 2014; Humphrey & Hao, 2011; Maune & Klassen, 2014; Nesi & Gardner, 2012; Schleppegrell, Achugar, & Oteíza, 2004) and research into the role of SFL metalanguage in the TLC (Gebhard, Chen, & Britton, 2014; Mohan & Beckett, 2001; Walsh, 2008), both of which fall beyond the scope of this study.

Teaching in the TLC

The role of the teacher is central to the success of the TLC. As Hyland (2003) explains, genre-based pedagogies arose partly in response to perceived excesses of the "process" movement. In the fields of (L1) composition and SLW, the term process writing has been used as a somewhat oversimplified proxy for individualistic and expressivist writing pedagogies (Matsuda, 2003). From a historical perspective, as Matsuda argues, process writing had only limited impact in ESL teaching. Although the familiar stages of "the" writing process—brainstorming, planning, drafting, revising, and editing—have indeed become staples of L2 classrooms and ESL writing textbooks, ESL writing instruction in North America continues to resemble the "current-traditional rhetoric" which the process movement posited as "the bad old days" when "students learned modes of discourse and applied them to write their five-paragraph themes on topics assigned by the teacher" (Matsuda, p. 67).[2] For example,

Ortmeier-Hooper (2013) shows how an immigrant English learner (EL) in high school responded to an assignment to write a five-paragraph essay based on an interview with a classmate by demonstrating his understanding of the teacher's lecture on the writing process. The first paragraph of his draft reads: "My name is Miguel I interview Arso and my purpose of this is to learn about my classmates and practic [sic] using the writing process to practice writing a 5 paragraph essay" (p. 59).

Process writing in the ESL context, therefore, could mean anything from this rigid (mis-)understanding of the writing process in order to produce "arhetorical" five-paragraph essays (Ortmeier-Hooper, 2013, p. 81) to the "discovery-oriented, ego-centered" (Hyland, 2003, p. 18) conceptualizations of writing that the Sydney School railed against for failing to provide actual instruction in high-stakes genres (see, for example, Martin's preface to de Oliveira & Iddings, 2014). Approaches to writing that lay claim to such a process orientation in addition to L2 methodologies that see input as the only requirement for SLA and communicative fluency as its only goal either devalue meaning-focused grammar teaching (Schleppegrell, 2004) or teach grammar as separate set of skills with little opportunity for discourse-level practice (Azar & Hagen, 2009 is a market-leading textbook that evinces such an attitude).

It is worth noting that this is quite different from the term "process writing" in L1 literacy research, which is traced to the seminal work of Hayes and Flower (1980). This line of research has analyzed the processes that expert writers use, from which a rich literature in cognitive strategy instruction has developed instructional materials to teach—particularly struggling—writers to choose and use these strategies effectively (Harris & Graham, 1996). However, this type of strategy instruction has had little impact on SLW in higher education. Neither Matsuda's (2003) well-documented paper

nor Hyland's (2003) comprehensive review in the same issue of the flagship *Journal of Second Language Writing* contains references to Hayes, Flower, MacArthur, Graham, or any L1 literacy specialists, all of whom would associate themselves to some extent with a "process" approach to writing. Furthermore, these scholars would surely not agree with Hyland's characterization of the teacher's role in (L2) process pedagogies as "non-directive and facilitating" nor the claim that writing in this pedagogy is "learnt not taught" (p. 18). Hyland has, however, accurately encapsulated the expressivist pedagogy that remains the model for process writing as it is typically enacted in many ESL classrooms.

The context for this study is thus a field which, in practice if not in theory, often holds a "codified and decontextualized" (Ortmeier-Hooper, 2013, p. 55) view of writing processes and employs ineffective ways of teaching them. Thus, even though genre-based pedagogy is far from a new proposition in ESL even in the U.S. (Johns, 1997), it still offers classroom teachers a novel alternative to the outdated but dominant method of writing instruction that sees writing as a wholly individualistic task that varies little by genre.

The TLC is built on Martin's (2009) principle of teaching and learning as "guidance through interaction in the context of shared experience" (p. 15). That is, writing is learned not through the study of expert writers, discovery of one's voice, and self-reflection, nor the production of a series of mode-based five-paragraph essays, but rather through explicit attention to the language, structure, and social function of written genres, led by an expert in the context of shared knowledge (Hyland, 2003). This is achieved through scaffolding, which puts the teacher back in a central role and will be critical for the discussion of Joint Construction, below. The

metaphor of scaffolding as a condition for learning dates to Wood, Bruner, and Ross's (1976) paper, "The Role of Tutoring in Problem Solving." In describing how young children were able to build a complex shape with wooden blocks, Wood and Brunner observed how the tutor (Ross) responded to the children's attempts as a "lure" (for the 3 year olds), as a "verbal prodder and corrector" (for the 4 year olds), and as "a confirmer or checker of constructions" (for the 5 year olds, p. 95-96). They conclude with the following characteristics of scaffolding, which are presented here with analogs to the TLC:

1. Recruitment to enlist interest: high-interest texts are presented in high-stakes genres.

2. Reduction in degrees of freedom, that is, controlling the task so that the learner only needs to focus on the components within their grasp: instruction proceeds from reading to writing since reception precedes production; the teacher supports analyses and—in Joint Construction—may even write much of the text if needed.

3. Direction maintenance by using past successes to encourage learners to take the next step: students realize that they can produce a target text at their linguistic level together during Joint Construction, which gives them the confidence to write individually.

4. Marking critical features: throughout the cycle, the stages of the genre and the linguistic resources with which they are construed are named, taught, and practiced.

5. Frustration control: unlike the traditional writing process, students do not write until they are ready to do so, which reduces the need for remediation and increases the chance of success (Rose, 2012).

6. Demonstration by modelling solutions to the task: this is the essence of the Joint Construction stage, but it is also inherent in the Deconstruction.

All of these aspects of scaffolding have been observed in research into teachers' behavior during the TLC, much of which is presented in the context of professional development and teacher preparation projects. One of the largest of these is the ACCELA Alliance (Access to Critical Content and English Language Acquisition), a collaboration formed in 2002 between the University of Massachusetts-Amherst and two urban school districts that serve a high proportion of low-income students and ELs (Gebhard et al., 2010). In-service elementary- and middle-school teachers enroll in a master's degree taught in the schools, which draws heavily on SFL theory and trains teachers to adapt the TLC to their context. Program participants have also collaborated on several publications using data from their own classrooms (Gebhard et al., 2014; Gebhard, Harman, & Seger, 2007; Gebhard et al., 2010). These reflections have served to inform revisions to the ACCELA program, reinforcing the designers' belief in the reciprocal and cyclical nature of all teaching and learning.

None of the ACCELA studies to date specifically focuses on Joint Construction, but they all show teachers gradually and willingly implementing aspects of the TLC in their practices. For instance, one fourth-grade teacher discovered the power of the Deconstruction stage to challenge the rigid scripts in her curriculum's teacher guide and gave her the confidence to analyze the linguistic choices realized in the books the class was studying and begin applying this to students' own writing (Gebhard et al., 2010). In another case study, a fifth-grade teacher used a version of the TLC to enable her students to write a persuasive letter to the principal requesting reinstatement of recess (Gebhard et al., 2007). In a practical if non-scientific demonstration of the effectiveness of the pedagogy, the request was granted. This

practitioner-oriented article clearly shows how the teacher was able to incorporate genre-based instruction in the regular curriculum and simultaneously address students' needs for explicit writing instruction, expanded linguistic resources, and urgent social action.

Not surprisingly, reports show that some teachers embrace SFL and the genre approach enthusiastically, others resist it, and yet others try to implement it but find themselves underprepared or frustrated by external demands. For example, Brisk and Zisselberger (2010) report on a year-long professional development project in which they trained 11 elementary school teachers in the SFL approach to genre. However, in order to address teachers' difficulties applying the theory to their practice, they ended up focusing on pedagogy to the detriment of language, without which the TLC cannot be fully effective. Nonetheless, most participants implemented some aspect of the training in their teaching. One even provided the title for the chapter, in reflecting on the power of front-loaded, explicit, language-based genre instruction: "We've let them in on a secret."

Two larger-scale programs implemented SFL-based writing curricula across entire schools (Daniello, 2014; Lee, 2012). Although both studies demonstrated potential benefits of the pedagogy for teaching genres rather than modes and giving detailed construction feedback, they also found that teachers sometimes misconstrued or took a long time to fully understand the approach. Nonetheless, given sufficient professional development, teachers in the elementary school that Daniello observed were able to use their knowledge of language and genre to change the content of their instruction.

The final study considered here that examined teachers' implementations of genre-based pedagogy is Macken-Horarik's (1996) case study of two Australian teachers. This chapter is somewhat unusual since it focuses on teachers who had already been trained in the Sydney School's methods. Thus, rather than analyzing teachers' professional development, Macken-Horarik explored classrooms where the TLC was already fully and effectively implemented. At the time, Bill taught 10th-grade English to mostly ELs in a socio-economically disadvantaged high school, while Margaret taught science in a high school that was not considered disadvantaged. Like the teachers in the studies above, they used genre principles to plan their instructional units so that genre knowledge would be front-loaded and explicitly taught. However, unlike most participants in the professional training research, both Bill and Margaret confidently and consistently used the TLC to scaffold students' learning through stages of Deconstruction, Joint Construction (in small groups or as a whole class), and Independent Construction. Language was woven throughout all the instruction using the terminology and insights of functional grammar. Margaret, as a science teacher, was especially successful in making the connection between learning science and learning to write science, a synergy described in the early SFL literature (Halliday & Martin, 1993). As students increased their knowledge of the field (the disciplinary content), they were able to make use of the specialized language of science, while also making choices within the interpersonal metafunction, such as hedging or distancing themselves from claims.

To summarize, case studies across age ranges and around the world lend tentative support to the potential of the TLC as a framework for implementing the Sydney School's genre-based pedagogy. The TLC also has a very strong theoretical

foundation and is intuitively appealing, especially to teachers working with non-mainstream students who do not enter their classrooms with the depth and breadth of genre knowledge of their more privileged and/or native speaking peers (Hyland, 2003). At the same time, the research points to the need for highly focused, ongoing training and a deep understanding of the role of language in realizing genres. Thorough materials design, classroom observation, and constructive feedback appear to improve teachers' implementation of the pedagogy. Absent this scaffolding for teachers, the TLC can all too easily be reduced to a simplistic list of genres and a pedagogy that does not apprentice students through the crucial activities of analyzing and jointly writing texts. Walsh (2008) argues that this was precisely what happened when the designers of the UK National Literacy Strategies over-simplified the Australian curriculum cycle and decided that training teachers in the staging of different genres and the role language plays in the text was "too complex" (p. 169). This denudes the genre pedagogy and makes it far less likely to have a positive impact on the learners whom it could most benefit.

Learning in the TLC

Studies of student outcomes from the TLC can be divided by the focus of their analysis: those analyzing students' specific written language use, including measures of complexity, accuracy, and fluency, and a smaller number using measures of writing quality.[3] All of the studies in this section were conducted in naturalistic class settings. For this reason, they lack some of the control that experimental studies provide but have strong ecological validity. While all the studies considered here employed some form of the TLC, several did not use Joint Construction or adopted a modification of it, and none focused specifically on the contribution of this stage to students' writing.

Language Choices

Since the TLC is an outgrowth of Systemic Functional Linguistics, investigations into students' language choices during and after instruction in the TLC use SFL's analytical tools. Halliday's (1994) functional grammar involves a "trinocular" view of every clause. Schleppegrell (2004) provides a clear explanation:

> A functional linguistic analysis … demonstrates how each clause presents experience and enacts a social relationship, at the same time that it links with a previous clause and builds up information that is then carried forward in subsequent clauses. (p. 3)

In an SFL analysis, there are three levels of meaning: experiential meanings, which constitute the *field* of the text (the content, ideas, or experiences and the logico-semantic relations between them); interpersonal meanings, which constitute its *tenor* (the relationship between the reader and writer constructed by language choices); and textual meanings, which constitute the *mode* (the organization of old/new information, cohesion, and unfolding of the text). A register is a particular combination of field, tenor, and mode (such as an academic register versus a conversational one), and texts written in those registers are seen as instantiations of various genres (Martin 2009).

Most SFL analyses, therefore, proceed from the clause level, where the writer's choices are analyzed for the use of the two experiential metafunctions, lexico-grammar (word choice and syntax) and logico-semantic relationships (conjunctions and other types of logical or grammatical clause connectors); for interpersonal functions such as hedging and boosting, selection of declarative or interrogative sentences, or use of personal pronouns; and for cohesive devices used to organize information through the text, such as the patterns of old and new information at the clause and discourse levels (Eggins, 2005; Halliday, 1994). From this perspective, the purpose of the TLC is to expose students to the linguistic resources of field, tenor, and

mode that proficient writers use in a particular genre and scaffold them towards independent control of a broadening linguistic repertoire. For teachers and scholars who use SFL, this knowledge does not develop automatically or unconsciously, particular for English learners (Schleppegrell, 2004). Consequently, language choices are implicated in every stage of learning and cannot be deferred to the editing stage of writing, as in the simplistic ESL view of process writing.

As an example of this theory in action, de Oliveira and Lan (2014) present a case study of a fourth-grade EL who was taught to write a scientific recount (an experimental report) using the TLC. A comparison of his pre- and post-instruction writing using the tools of SFL suggests that Jin-Soon learned to select field-specific vocabulary ("Styrofoam ball" vs. "thing") and a range of more appropriate logical connectors ("first," "then," "finally" vs. a reliance on "then when," p. 36). These leixcogramatical and logico-semantic features of scientific writing were also among the foci of the teacher's Deconstruction and Joint Construction lessons, hinting at transfer to independent writing.

A similar pattern of development can be seen from Schultze's (2011) action research project in his fifth-grade class of early emergent bilinguals. Analyzing the writing of one "representative" student, Kira, Schultze identified developments across three drafts of a persuasive letter. Kira expanded her language choices at the level of field by employing a wider range of sentence patterns and prepositional phrases. She made fewer changes in the tenor of her letter; she did not succeed in making her claims urgent (for example, by using strong modal verbs) or emotional. However, she made the most substantial progress at the level of mode, foregrounding information (e.g., by moving a time adverbial to the front of a sentence), and using repetition and

conjunctions to construct a more cohesive argument. As in many of these case studies, however, it is not clear in what ways Kira is representative, for which larger-scale replications are needed.

Several other studies have also examined the use of the TLC and similar pedagogies to help writers develop more academic language use in terms of the choice between types of connectors. SFL analyses differentiate among three types of clause-complex, or grammatical resources for combining clauses: parataxis (coordinating conjunctions in traditional grammar), hypotaxis (subordinating conjunctions), and embedding (restrictive relative clauses).[4] Brisk and De Rosa (2014) in their analysis of 19 students spread between Grades 4 and 8 also coded the clause-complexes for the logical relationships that they express, for instance additive, temporal, or causal. They found that younger and uncoached writers used the same conjunction (*and*) for many different functions, while writers at higher grades and post-instruction were more likely to use logico-semantic resources with more specific and restricted meanings such as *because*. Furthermore, learners used greater amounts of subordination to express a more effective range of logical connections after instruction in genres using the TLC.

However, as the genres become more complex at the university level, successful writers shift from hypotaxis (subordinate clauses) to embedding (i.e., relative and noun clauses). In a case study of a single university student in his second-year biology class, Ho (2009) compared writing before and after instruction using Systemic Text Analysis (essentially just the Deconstruction stage of the TLC). Generally, the post-instruction text was more complete, complex, and accurate with better thematic progression. Ho ascribes some of these improvements to a decrease in

subordination and an increase in embedded clauses. This preference has been noted in professional academic writing (Biber, Gray, & Poonpon, 2011), showing the importance of teaching not only the form but also the functions of any grammatical structure. Therefore, simply calculating the proportion of coordinated and subordinated clauses without analyzing them qualitatively would disguise the contribution of each conjunction to the meaning and effectiveness of the text (Schleppegrell, 2004). However, the shifting preferences for subordination and embedding are also cultural. Thus, by relating the grammar to the social context of writing, it is possible to make these differences visible and explicit to students from other language backgrounds.

Another aspect of academic, and in particular scientific, writing that has been targeted through the TLC is grammatical metaphor (Halliday & Martin, 1993). Grammatical metaphor in SFL refers to a change in part of speech from the one which most clearly matches its meaning (the congruent form) to a non-congruent form (Halliday, 1994). For example, actions are most naturally expressed as verbs (e.g., *describe*), but through nominalization, a grammatical metaphor is produced because the action is expressed as a noun (e.g., *description*), known in SFL as a participant. This is a valuable resource in writing because a participant can be the subject of the next clause, creating the canonical cohesive pattern of old/new information linking. The same technique can be applied to other parts of speech or entire clauses. For example, a Japanese sophomore wrote the following in a summary of a research article:

> The author explains that plant genetics is valuable *to produce new species* of food plants by special operation. The effective *use of plant genetics* brings us more varieties of vegetables, fruits. (Yasuda, 2015, p. 115, emphasis added)

The non-finite clause in the first sentence ("to produce new species") is repackaged as a noun phrase in the subject of the second sentence ("the effective use of plant genetics"). This grammatical metaphor operates at the textual level of meaning to reduce redundancy and create cohesion.

In her descriptive study of 30 students writing a summary using a modified TLC without Joint Construction, Yasuda (2015) found an increase in the use of grammatical metaphor, suggesting that this resource is amenable to instruction. It is important to note that grammatical metaphor rarely involves any new syntactical structures for students: to return to the participant in Brisk and Zisselberger's (2010) professional development course, "we've let them in on a secret," in this case a feature of academic writing that is not immediately obvious but whose absence affects the quality of the text.

Grammatical metaphor has also been the target of some of the work in the ongoing Scaffolding Literacy in Academic and Tertiary Environments (SLATE) project, a collaboration between City University of Hong Kong and the University of Sydney. City University is an English-medium university serving a mostly Chinese-speaking student body, many of whom enter the university with a low level of English since most secondary schools have taught in Chinese since the British hand-over of Hong Kong to China (Mahboob, 2014). In order to help disciplinary faculty teach students how to write, the Sydney team has been facilitating an online version of the TLC in selected classes to support assignments such as writing a definition or a biology lab report, genres which have been described using an SFL analysis. Most of the online support is asynchronous for practical reasons (the writing tutors are all in Australia, a different time zone), and so in most cases, Joint Construction was replaced

by “Negotiated Construction,” essentially cycles of genre-based feedback on students’ individual writing (Mahboob, 2014). Part of Devrim’s dissertation work (as reported in Mahboob, Chan, & Webster, 2011) involved a paired design in which students[5] wrote one assignment with no “frontloading” and a later assignment with frontloading (i.e., Deconstruction and Negotiated Construction). Devrim found increases in the number of experiential metaphors (23 to 28.1 per 1,000 words) and logical metaphors (4.6 to 14.7 per 1,000 words), two linguistic choices that differentiate academic writing from everyday discourse.[6] Mahboob et al. conclude, “These numbers provide evidence that frontloading worked and that students supported by the SLATE team used the material given to them in drafting their work” (p. 133-134), although that evidence is tempered by the non-experimental nature of the study, which lacked both a control group and random assignment. It is therefore tempting but problematic to see the results as statistically significant and impute the changes in students’ writing to the SLATE intervention without ruling out alternative hypotheses through confirmatory quantitative or mixed-methods studies.

Other non-experimental studies support this finding of language development following genre instruction. Achugar and Carpenter (2014) conducted a longitudinal “design experiment” in secondary-school history classrooms in California. Although the intervention was not the complete TLC, it included components of text analysis and scaffolded instruction in the language of disciplinary writing using an SFL framework. The data for this article, drawn from the larger study, consist of 97 students’ written answers to reading comprehension questions pre- and post-instruction over one semester. The participants were considered low achievers in history, and 15% were designated ELs, although others were multilingual students

"reclassified" as English proficient. All were taught by the same history teacher in an urban high school. Students' writing was analyzed using mixed methods: clauses were identified manually and analyzed statistically (number of content words per clause and number of clause-complexes per clause). The vocabulary was coded qualitatively for technicality, colloquialisms, and interpersonal functions (e.g., use of modal verbs and personal pronouns), and these data were quantitized for statistical analysis (Creswell & Plano Clark, 2011). Logical relationships between clauses were analyzed in the same way. The results were compared between the two time points and for three demographic groups (ELs, African Americans, and all others) using matched *t* tests. Statistically significant increases were seen for length and grammatical intricacy (number and type of clause-complexes). The latter result reinforces other qualitative findings of increased complexity after genre instruction in the TLC (Brisk & De Rosa, 2014; Ho, 2009). Achugar and Carpenter complemented their statistics with a textual analysis of students' writing to show how the quantitative results translated into qualitative transitions towards more academic discourse.

In a very different context, Yasuda (2011) also used a mixed-methods design to analyze changes in writing of 70 Japanese sophomores taking a required English as a Foreign Language (EFL) writing class. The task in question was an email, and the instruction was similar to the TLC. While there was no teacher-led Joint Construction, students engaged in some pair work between the textual analysis and independent writing, which is an alternative to whole-class collaborative writing (Feez, 1998). Once again, there was no control group or random assignment, so the results need to be interpreted cautiously. The emails were blind-rated by two other teachers using an analytical quality rubric with categories for "task fulfillment and appropriacy,"

"cohesion and organization," and "grammatical control" (p. 120). Statistical measures of fluency, lexical diversity, and lexical sophistication (target politeness structures) were also calculated. MANOVA analyses showed significant growth in all three variables on the quality rubric and for fluency and lexical sophistication, but not for lexical diversity. A brief qualitative analysis shows meaningful improvements in some students' emails. In a follow-up to this study with students in the second semester of the same course for biology-related majors, Yasuda (2015) found increases in a number of targeted language features in students' summary writing. However, she also noted that most of the improvements occurred in students who entered with higher levels of language proficiency. This suggests the possibility of a threshold effect for genre-based instruction in cognitively and linguistically challenging genres.

Quality, Staging, and Genre Awareness

It might be inferred from the studies in the preceding section that improvements in language use after genre-based instruction would have a positive overall effect on the quality of students' writing. However, very little research using the TLC has incorporated a holistic or analytic measure of writing quality, so this proposition is difficult to assess.

More typical than an overall quality rating is a measure of the completeness and effectiveness of a text by analyzing its staging, or genre elements. For example, Bacha (2010) implemented the complete TLC in her advanced English for Academic Purposes (EAP) class in Lebanon for four weeks. Her qualitative analysis of pre- and posttest essays from two students suggests progress in argumentation and organization. Language use is not analyzed, and it is not clear why only two students' essays are discussed. Furthermore, without a control group, the changes cannot be

attributed to the pedagogy. In lieu of a quality rating, Bacha describes essays as "high-rated" and "low-rated," but regrettably does not give details of the rubric. Nonetheless, her qualitative analysis of these two students' essays pre- and post-instruction leads her to conclude that the TLC did indeed improve her students' writing.

A similar conclusion was drawn by Chandrasegaran (2013) from her quantitative study involving 137 high-school students in two Singaporean schools. Students in these English-medium schools, who are often not native speakers of English, take a local version of Britain's long defunct "O"-Level examinations at age 16. A component of the exam in English Language is a short expository essay, which students often struggle to write. Chandrasegaran argues persuasively that teachers in her observations were focusing too much on "extensive book knowledge," which is not necessary to answer the prompts, and not sufficiently on the "thinking skills" (p. 102) and language needed to construct and defend opinions. She therefore designed a "socio-cognitive" intervention that incorporated the TLC framework, SFL analyses of stance and topic development, and explicit metacognitive instruction. Drawing on both genre theory and cognitive strategy instruction, she modified the TLC to include more of the cognitive modeling and self-regulation typical of strategy instruction (Graham & Perin, 2007). Several prominent scholars both in L1 and L2 writing have voiced support for a socio-cognitive approach to writing (Atkinson, 2011; Flower, 1994; Hyland, 2004); however, this is a rare attempt turn the theory into an intervention that can be tested experimentally.

Chandrasegaran's (2013) students were randomly selected, but since instruction took place in intact classes, no control group was permitted, so changes in students' writing should not be solely ascribed to the intervention. The intervention

was thorough: 14 weekly lessons of 70-80 minutes' duration on "the key genre practices of the school-based expository essay and the thinking processes for generating those practices" (p. 105). These thinking processes included goal setting, self-evaluation, anticipating counter-arguments, and reviewing. The genre practices included language for indicating and justifying the writer's stance and writing counter-arguments and refutations. The author does not specifically mention the TLC, but her activities fit the cycle of textual analysis, collaborative activities, and independent writing. In lieu of modeling her own cognitive processes while writing a sample text, however, the teacher attempted to analyze the cognitive processes of the authors of authentic texts. This makes little sense from an SFL perspective since it is not possible to retrieve cognition from a text in this way. Cognitive strategy instruction likewise stresses the need for teachers to model their own thinking processes by writing a text "live" in the classroom. This objection aside, the instruction appears to successfully combine elements of both pedagogies.

Students' pre- and posttest essays were scored for quality both holistically and analytically. The two quantitative analytical measures were stance-support moves (phrases with the rhetorical function of introducing a new idea, supporting a claim, raising a counter-argument, or refuting one) and topicality (words and phrases that are functional in "constructing support for the overall stance in some way," p. 107). Regrettably, the holistic rubric and its results are not presented in the paper, and the quantitative measures are not used in any other research reviewed in this chapter and thus have limited validity. With those caveats in mind, *t* tests revealed significant increases in most types of stance support moves and in topicality, with large effect sizes. Chandrasegaran (2013) concludes that the specific changes in aspects of writing

targeted in the instruction "must be due to a raised socio-rhetorical awareness resulting from instruction in goal-directed content selection combined with observation of the main genre practices in expository texts" (p. 109). This claim is too strong given the lack of a control group, but it can justifiably be asserted that positive changes occurred in these students' examination writing after, if not necessarily due to, a comprehensive genre- and cognition-based instructional sequence.

A less direct measure of learning is the "socio-rhetorical awareness" that Chandrasegaran (2013) refers to, meaning students' recognition of the ways that language use varies according to context. Yasuda's (2011, 2015) studies also include measures of genre awareness drawn from student surveys conducted pre- and post-instruction as well as follow-up interviews. All 70 students in her 2011 research into email writing reported increased genre knowledge at the end of the semester. In their interviews, students indicated that they found the classes useful for different reasons: one appreciated the language teaching, while another learned how to better understand her audience. This suggests that genre-based instruction can flexibly meet diverse needs. In Yasuda's (2015) study of more advanced students, all participants also perceived improvements in their ability to write summaries as well as in their linguistic resources.

Summary of Research into the TLC

Despite three decades of implementation of the TLC, starting in Australia and spreading around the world, the evidence for its effectiveness is compromised by weak research designs and overly strong claims of success. This reflects the lack of experimental research, or at least quasi-experimental research with control conditions and carefully discussed limitations. Nonetheless, by considering all these studies

together, it is possible to suggest that the evidence on the whole suggests—but does not confirm—benefits for the TLC in teaching L2 writing. These benefits can be somewhat confidently asserted for specific language features, tentatively suggested for genre elements, organization, and awareness, and reasonably hypothesized for overall quality. There are also indications supporting mixed-methods research, which can balance the educational research community's demand for generalizable, quantitative results with genre educators' desire for qualitative analyses of learning contexts and student writing.

Joint Construction

Research into the individual stages of the TLC, as opposed to the broader macro-genre of the curriculum, is limited. Some case studies have shown how teachers guide students in the Deconstruction of mentor texts, with or without the use of SFL metalanguage (Daniello, 2014; Gebhard et al., 2010; Macken-Horarik, 1996; Yasuda, 2011). Of most relevance to the present study, however, is the small body of research into the types of scaffolding that occur during the Joint Construction stage, principally Humphrey and Macnaught's (2011) pilot study of a single instance of teacher-led joint construction in an MA Applied Linguistics class at the University of Sydney and their larger-scale replication with three "events": two from the same MA course and one from a university-preparation ESL class (Dreyfus et al., 2008).[7]

In both studies, transcripts of video-recorded Joint Construction sessions were analyzed qualitatively by dividing them into exchanges and then examining the purpose and language of each speaker's moves within each exchange to categorize the types of interaction occurring. This revealed that Joint Construction has three distinct stages, which interestingly mirror the three stages of the Teaching-Learning Cycle

itself (Dreyfus et al., 2008, pp. 143–144): Bridging (connecting the task at hand to the models in the Deconstruction), Text Negotiation (in which the teacher and learners co-construct the actual text), and Review (in which the text produced so far is re-read and edited if necessary). The stages are iterative and cycling, as teachers guide their classes between recalling the genre, writing the text, and reviewing what they have written together.

Analyses of the discourse show how teachers "manage power and solidarity" by relaxing classroom behavior norms to encourage a collaborative atmosphere and "also manage the balance between providing the required information themselves and letting the students contribute and test their own understandings" (Dreyfus et al., 2008, p. 148). In a typical Text Negotiation exchange, for example, the teacher first invites students to attempt to compose a sentence, increasing scaffolding by pointing to the genre staging, providing sentence stems, and finally composing the entire sentence if needed. In this way, the scaffolding provided is dynamic and contingent (Hammond & Gibbons, 2005, p. 11), meaning that it can be increased or decreased according to students' changing needs during the activity. Similar practices can be seen in de Oliveira and Lan's (2014) case study, where the science teacher moves fluidly between elicitation, recasting, and supplying new vocabulary during the Deconstruction stage, thus "moving the discourse forward" (Athanases & de Oliveira, 2014, p. 289) by expanding the traditional Initiation-Response-Feedback model of teacher-student interaction (Hammond & Gibbons, 2005).

Dreyfus, Macnaught, and their colleagues recently had the opportunity to expand their research on Joint Construction into an online mode as part of the SLATE project. As explained above, most classes did not conduct Joint Construction online

for logistical reasons. However, Dreyfus and Macnaught (2013) report on two case studies conducted with first-year linguistics classes that jointly wrote summaries and definitions in a synchronous chat environment. They largely confirmed their earlier classroom findings, although the technology necessitated a Set Up phase where the tutor welcomed participants and introduced the platform and the activity.

Dreyfus and Macnaught (2013) further analyzed the types of scaffolding they observed in the chat transcripts. The writing teacher invited students to recast, extend, and edit their sentences. The online instructors also asked writers to justify their choices and encouraged other participants to evaluate their peers' contributions, which they seemed very willing to do. Above all, as expected, teachers offered a lot of explanations, giving the rationale for their choices or changes. These strategies closely mirror the types of contingent, interactional scaffolding that Hammond and Gibbons (2005) identified as successful in their large-scale, longitudinal analysis of classroom interactions: linking to prior experience, pointing forward and recapping, appropriating and recasting, and cued elicitation.

Interestingly, students in Dreyfus and Macnaught's (2013) study also initiated discourse beyond simply contributing to the joint writing. They asked for help or clarification from the teacher and offered praise or revisions to their classmates. The experience was clearly highly interactive and drew substantially on the Deconstruction stage, which had been previously conducted. Dreyfus and Macnaught comment:

> The goal of Joint Construction is to then carry over shared understandings, which have been developed in Deconstruction, to produce a text that is of a higher level than students could independently produce at that point in their development. (p.78)

However, this remains speculative since no research published to date has specifically connected the experience of Joint Construction to students' subsequent independent writing.

Despite the paucity of research into Joint Construction or any whole-class collaborative modeling of a target text, there are compelling reasons to believe that the transfer to which Dreyfus and Macnaught (2013) allude may in fact occur. The evidence comes from two very different bodies of research, which are synthesized in the remainder of this chapter. First, in other types of collaborative writing (CW) in which the teacher does not participate (i.e., pairs or small groups of students), there is evidence that useful interactions often occur; furthermore, CW has documented benefits on the collaborative text and on students' subsequent individual writing (IW). Second, when ESL learners in the course of CW talk about their language choices as they attempt to write in English, which Swain (2006) has called "languaging," benefits may accrue for their subsequent written expression.

Collaborative Writing

Scaffolding During Peer Collaborative Writing

Considerable attention has been paid to the types of interaction that occur among collaborative writers since simply putting students in pairs or groups with a writing task does not guarantee collaboration. Discourse analysis of the discussions that occur suggests that dyads and groups can be classified according to the types of talk in which participants engage, and that the nature of the interactions may be associated with different outcomes. This is relevant for Joint Construction since the teacher has the opportunity to manage these dynamics.

Storch (2002) provides an important and widely-used taxonomy based on her study of 20 intermediate-level ESL students at an Australian university. Students worked in dyads to write a short data commentary (an explanation of a graph) and complete a grammar editing and text reconstruction task. Using a grounded approach to analyzing transcripts of the pairs' interactions, Storch identified four recurrent patterns that describe the roles assumed by participants: two collaborative orientations (collaborative and expert/novice) and two non-collaborative (dominant/dominant and dominant/passive). These patterns form quadrants defined by two axes (Figure 2): mutuality (the degree to which partners are supporting each other's learning) and equality (the extent to which partners are seen as peers in the writing process).

In collaborative groups, pairs treat each other as equals and cooperate to resolve problems that arise during writing (Storch, 2002). Collaborative pairs in Storch's study considered each other's suggestions, offering corrective feedback, confirmations, repair, and recasting (that is, rewording a partner's utterance more accurately; Lyster, 1998). Dale (1994b) found that similar conversational turns marked the interactions of ninth-grade students in a successful CW group writing an argumentative essay. The three students in Dale's "model" group not only produced far more conversational turns than those in less collaborative groups, but were also more likely to engage in writing as a problem-solving task by offering alternative ideas, asking for clarification, and evaluating their own and others' ideas, much like Storch's dyads.

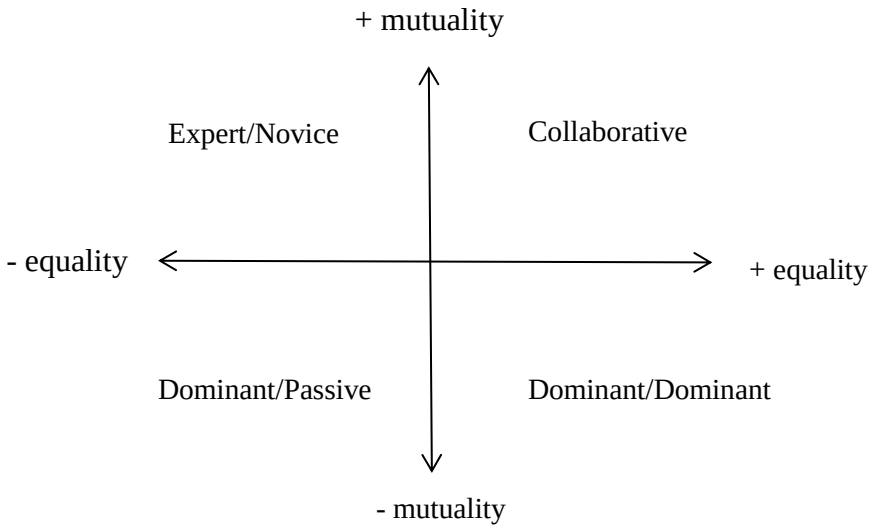


Figure 2 Patterns of Interactions in Dyadic Collaborative Writing

Note: Adapted from Storch, 2002

Daiute and Dalton (1988) suggest that these characteristics of collaborative group dynamics stem from a willingness to tackle "cognitive conflict" (p. 262). In their study of fourth- and fifth-grade students writing stories related to their science curriculum, pairs that focused on negotiating content and rhetorical style showed statistically significant improvements in their individual writing after four rounds of CW compared to students in groups that avoided such discussions and talked instead about spelling and mechanics. This may be explained by Jones's (2003) finding of a statistically significant conditional probability that "conflict utterances" (such as disagreements and substitutions) and "social regulation" ("suggestions, questions, agreements, and negotiations," p. 175) would be followed by metacognitive language (discussions of linguistic and writing processes) in a study of first graders' CW. Jones argues that such sequences activate children's ZPD, allowing them to learn "literate language" (p. 168).

In expert/novice dynamics, Storch's (2002) other collaboratively-oriented pattern, interactions resemble the canonical scaffolding that takes place inside the ZPD: the stronger writer does not dominate the weaker partner but instead "acts as an expert who actively encourages the other participant" (p. 129). The teacher/student relationship is the prototypical interaction in which the expert transmits knowledge more or less explicitly or dialogically to the novice (Daiute & Dalton, 1993). However, effective expert/novice pairings can form even in the absence of an undisputedly competent expert, such as between children developing writing skills (Daiute & Dalton, 1993) or non-native speakers with different levels of English proficiency (Storch, 2002). This is a concept that Donato (1994) has called "collective scaffolding." For example, in Daiute and Dalton's study, 14 low-achieving third-

graders showed shifting patterns of expertise as they worked in pairs to write narratives based on prompts such as "write a story about a child who solves the case of the missing skateboard." The pair selected as a case study in this paper consisted of a fairly strong writer (Karl) and one who displayed no understanding of narrative structure at pretest (Eduardo). Although Karl most frequently adopted a teaching role, as Eduardo's confidence and ability grew, he too began to engage in moves of initiating and contesting, which Daiute and Dalton use as proxies for expertise. Ultimately, both students' writing improved, as measured by the number of "story elements" in their posttests, suggesting that the novice/expert relationship is not only beneficial for the novice.

However, Daiute and Dalton's (1993) findings should be treated with some caution since they took a very broad approach to defining story elements, including not only structural elements of the genre (e.g., title, setting, climax, resolution) but also grammatical structures (tense markers, linkers), and even length, which is not clearly defined. The mechanism by which expert/novice scaffolding benefits the writing of each member of the dyad thus remains an open question.

The two remaining orientations for CW peer groups (Figure 2) are non-collaborative (Storch, 2002). Dominant/dominant pairs do not negotiate the text, but write in parallel or sequence, while passive students contribute little to the discussion and are less likely to make progress. From an SLA perspective, discussed further below, the lack of negotiation in the former pattern and the lack of output from the passive partner in the latter preclude the opportunity for language learning (Watanabe & Swain, 2007). These patterns were also observed by Dale (1994a, b), who suggests that they are equally inimical to L1 writing development. Students in Dale's (1994b)

two less successful groups more frequently used negative comments (a sign of dominance by the speaker), and some students were silenced, especially when a groupmate adopted a "judgmental" (p. 341) role. In this case, students engaged in criticism rather than scaffolding, while some partners felt stifled. In other situations, one student may simply struggle to share the task perhaps because they do not feel accountable for the writing. There are likely complex reasons why students fall into dominant or passive roles which may relate to issues of identity and status (Christianakis, 2010) and which remain to be more fully explored.

The nature of group dynamics is critical to the success of CW both for writing and language development. The pattern of relationships among group members may affect the scope of the ZPD that forms (Donato, 1994). In other words, in non-collaborative groups, writers do not engage in ways that stretch their linguistic resources and writing skills (Dale 1994b, Storch, 2002). However, when teachers lead Joint Construction, they may be able to control the collaborative dynamics, adjusting the scaffolding to keep the interaction within the students' ZPD. Therefore, learning may be anticipated.

Products of Collaborative Writing

Analyses of collaboratively written texts and comparisons between collaborative and independent writing suggest that two or more writers are better than one. Much of the research is quasi-experimental (e.g., Fernández Dobao, 2012; Wigglesworth & Storch, 2009), but support from experimental research (e.g., O'Donnell, Larson, Dansereau, & Rocklin, 1986; Winter, Neal, & Waner, 1995) strengthens the claims that can be made for CW, at least in higher education.

In a series of well-designed experiments, O'Donnell and colleagues found that pairs outperformed individuals on tasks involving writing or rewriting instructions for operating a tape recorder and starting a car (O'Donnell et al., 1985, 1987, 1986). In all these studies, undergraduates in introductory psychology classes were randomly assigned to CW or IW conditions in post-only controlled designs. Although initial writing ability was not measured, random assignment theoretically prevents selection bias, and the researchers collected two covariates (reading vocabulary tests and a text processing measure) to ensure comparability between conditions. Students' writing was evaluated for communicative quality and completeness of the instructions. Both scores were derived from checklists of desirable qualities (e.g., reference to illustrations, use of steps, and correct ordering of steps) and necessary equipment and activities. In the 1985 study, dyads produced instructions that were rated significantly higher than individuals' in communicative effectiveness not but completeness. A larger study in 1986 confirmed this result and also found that both individuals and pairs who were given a below-average set of instructions and told to improve them scored significantly higher on communicativeness and completeness than those who were given the weak model with no directions. The 1987 study replicated the previous one but with only three groups (individual writing, individual rewriting, and collaborative rewriting) and found a significant benefit for individual writing and collaborative rewriting over individual rewriting on the communicative score only. However, the differences in the mean scores suggested that only the collaborative group devoted equal attention to both the completeness and the communicativeness of the instructions. One possible interpretation of all these results is that the negotiations

over content, language, and genre that occur in CW encourage writers to consider their audience more than does IW.

A similar advantage for CW is suggested by an experimental study of 260 junior and senior undergraduates in a business communications course (Winter et al., 1995). Twelve sections of the course were randomly assigned to IW or CW conditions. In the CW sections, students were randomly assigned to groups of four. Students wrote two letters: one unfavorable (denying a claim for compensation from a consumer) and one persuasive (a sales letter) three weeks apart with instruction in business correspondence in between. Groups produced significantly higher-quality unfavorable letters and somewhat, but not significantly, better persuasive letters on a 6-point quality rubric. On average, students in both conditions improved significantly between the two tasks, suggesting a benefit for instruction, although the fact that groups outperformed individuals initially might suggest that students were already scaffolding each other's learning without explicit instruction. Only one holistic measure of writing quality was used, so it is not possible to see which aspects of groups' letters were more effective nor how the individual writers caught up in the second task, and no pretest or covariates were used to establish equivalency of writing proficiency between the conditions.

Therefore, there is some evidence that university students write better quality texts in their L1 when they collaborate, perhaps because they give greater consideration to their readers. A wider range of benefits has been found in L2 contexts. Storch and Wigglesworth conducted a seminal series of quasi-experimental studies at their Australian university in which they compared argumentative essays and data commentaries written individually and collaboratively (Storch, 2005; Storch

& Wigglesworth, 2007; Wigglesworth & Storch, 2009). In addition to holistic quality measured on a 5-point rubric, they collected measures of fluency (word count, number of T-units), accuracy (such as percentage of error-free clauses), and complexity (such as the ratio of dependent clauses to total T-units). Since Storch (2005) found that pairs wrote significantly shorter texts, the researchers subsequently allowed dyads longer, which eliminated the statistical difference on fluency measures. Storch's 2005 study found benefits in accuracy and complexity for the CW condition, but the sample was underpowered (n = 23) and unbalanced between the conditions, so unsurprisingly statistical significance was not reached. In the larger follow-up studies, however, pairs' writing was significantly more accurate than individuals' in terms of error-free clauses and T-units. Wigglesworth & Storch (2009) calculated a large effect size for accuracy (eta^2 = .152).

Although the results suggest benefits for the accuracy of L2 writing produced in CW conditions, students did not write a pretest and were not randomly assigned to conditions (in fact, they were allowed to choose between IW and CW in Storch, 2005). Therefore, pre-existing differences may have confounded the results. In addition, even the largest study (Wigglesworth & Storch, 2009) lacked power to detect medium- and small-sized effects (n = 144). Nonetheless, while Wigglesworth and Storch's attribution of the difference in accuracy to the treatment condition may be too strong, there is a trend towards a benefit for CW in L2 writing that deserves further research.

One additional study has compared IW with both pair and group CW (Fernández Dobao, 2012). Six intact university Spanish classes were randomly assigned to the three conditions and wrote a picture-based story. Storch's (2005) measurements of complexity, accuracy, and fluency were used, and statistically

significant differences in accuracy were found for groups over pairs and for groups over individuals. Both collaborative conditions also resulted in shorter texts than individual writing, as predicted by Storch, and somewhat more complex writing, although the difference was not statistically significant. Groups also produced significantly more language-related episodes than pairs (see below), and they resolved them correctly at a higher rate, suggesting a benefit for language acquisition. Qualitative analysis of the transcripts showed the groups provided appropriate and effective scaffolding as expertise shifted between group members. No other research has directly compared CW in groups of different sizes; thus, this result from a small, quasi-experimental study should be considered exploratory.

Effects of Collaborative Writing on Independent Writing

The kinds of talk that occur during CW taken together with the tentatively positive effects of collaboration on writing summarized above may predict transfer to students' subsequent IW. Daiute (1986) traced evidence of learning in one pair of fourth graders writing stories about animals, showing that both students appeared to learn new strategies and styles of writing. In the instruction-writing studies discussed above, transfer effects were found for the communicative skills in which pairs performed better than individuals on the initial task: inclusion, numbering, and ordering of steps (O'Donnell et al., 1985). Students in both the editing and non-editing CW conditions were also able to transfer their improved communicative skills to their IW (O'Donnell et al., 1986), but no transfer effects were found by O'Donnell et al. (1987). The authors suggest that working with a partner orients students to consider their readers, leading to more effective IW. The disappointing results of the 1987

study led them to wonder whether one experience with CW was adequate for learning to take place.

Two longitudinal studies provide limited support for O'Donnell et al.'s (1987) conclusion. Louth and colleagues (1993) randomly assigned six intact first-year composition classes to three conditions: IW (control), collaborative process but subsequent IW, and CW in randomly assigned groups of three or four. In a well-controlled quasi-experiment, students in the collaborative conditions scored slightly higher on their essays on an individual post-test after seven weeks and multiple opportunities to collaborate, but no statistically significant difference was found on the holistic quality measure. A similar result was found by Yarrow and Topping (2001) in their experimental study of 10-11 year olds in a "problematic class" in Scotland. The treatment condition was a technique called "Paired Writing" (Topping, Nixon, Sutherland, & Yarrow, 2000), a form of cognitive strategy instruction based on the work of Bereiter and Scardamelia (1987), which was designed to create a "writer/helper" relationship, much like Storch's (2002) expert/novice dyads. After six weeks and five interventions, students writing collaboratively in the paired condition made significantly greater progress in their writing than control students, measured using Scottish National Curriculum Guidelines for language, content, organization, and mechanics. In individually written posttests, children from the experimental condition scored higher on average than the controls, but the difference narrowly missed statistical significance, which could be due to a lack of power (n = 28). The gain from CW in both studies may, therefore, be real but difficult to measure due to its small effect size.

Two studies have attempted to trace transfer effects from CW to IW in L2 learners, but their research designs were limited. Bacha's (2010) study, described earlier, included two instances of Joint Construction, but since their impact is not assessed independently, nothing substantive can be concluded about the unique contribution of CW in this case. Shehadeh's (2011) ambitious research in the UAE was a controlled pre-post study using two intact low-intermediate English classes for a full semester. In one class, students wrote 12 paragraphs collaboratively; in the business-as-usual control, students completed the same assignments individually. Essays were rated on a popular analytical rubric, and a significant benefit was detected for the CW condition in overall score as well as content, organization, and vocabulary but not grammar or mechanics. The results should be treated with some caution, however, since only one class was assigned to each condition, which confounds condition with class. The design is also subject to Hawthorn and John Henry effects since collaborative writing was a highly novel and engaging activity for these women (the students in the experimental class were surveyed and reported positive perceptions). Furthermore, the rubric used has narrow bands, so a large effect is highly unlikely. For example, grammar is scored out of 25, and both classes showed improvement on this measure (nearly 4 points for the control group and 6 points for the experimental group). Since the class consisted of low-intermediate level learners, one would hope to see gains such as these in a 16-week semester, but larger gains would be highly unlikely even if the intervention were highly successful (that is, low-intermediate level students will not reach the advanced level in four months). Consequently, the study lacked the power to detect small effects. Differences may have been more evident using Storch's (2005) more sensitive measurements for

accuracy and complexity rather than the broad "grammar" category on Shehadeh's rubric.

To summarize, transfer of learning from CW to IW remains elusive. However, results from both non-experimental studies and experimental research that returned non-significant findings suggest that students do show benefits from participating in CW when they write independently. In an ESL context, this learning can be analyzed both as writing development, and as will be seen in the next section, as language acquisition.

Interaction and "Languaging"

The potential for CW to generate conditions conducive to L2 learning can, rather like writing as a whole, be explained from cognitive and sociocultural angles. For cognitive researchers, CW promotes noticing of non-targetlike language forms, which has been hypothesized to facilitate a focus on form and the reorganization of the learner's internal representation of the target language (see Gutiérrez, 2008, for a review). Evidence of such attention is measured by the number, frequency, and content of language-related episodes, or LREs, defined as "any part of the dialogue where learners talk about the language they produced, and reflect on their language use" (Swain & Lapkin, 2002, p. 292). For instance, de la Colina and García Mayo (2006) compared the number of LREs produced by groups randomly assigned to one of three collaborative tasks: CW (a jigsaw story-writing task similar to Swain & Lapkin, 2002), dictogloss (in which pairs work together to reconstruct a passage read aloud by the teacher; Wajnryb, 1990), and a text reconstruction task (adding function words to an incomplete text). The CW task produced significantly more LREs than dictogloss but fewer than text reconstruction, not surprisingly since grammar is the

only possible focus in the last task. The results confirm Swain and Lapkin's earlier research and suggest that CW successfully integrates a focus on form into a communicative task (an original composition).

Swain has, in recent years, revisited LREs from a sociocultural perspective. Rejecting her earlier "output hypothesis" (Swain, 1985) as a "simplistic" and mechanistic metaphor that sees language only as a "conveyer of meaning" (Swain, 2006, p. 96), Swain now uses the term "languaging" to stress the role of language as a mediator of cognition:

> In fact, it is precisely when language is used to mediate problem solutions, whether the problem is about which word to use, or how best to structure a sentence so it means what you want it to mean, or how to explain the results of an experiment, or how to make sense of the action of another, or . . . that languaging occurs. (Swain, 2006, p. 96)

Thus, when learners "language" about their choices while writing, they are not just displaying linguistic knowledge, but also actively mediating their learning through their use of the target language in the context of a meaning-driven activity. For instance, Brooks and Swain (2009) studied the interactions of four ESL students in a Canadian pre-university ESL program. In a complex research design, the students participated in a CW activity, after which their text (deemed the pretest) was reformulated by a native speaker of English. Dyads then compared their pretest to the reformulation, which generated a large number of LREs. Finally, students individually rewrote their pretest, which was evaluated for the number of reformulated items that were included in the posttest as evidence of transfer. Both pairs formed a collaborative relationship (Storch, 2002), and they correctly resolved 83% of lexical and 81% of grammatical LREs. Furthermore, between 64% and 82% of the forms over which they "languaged" were maintained in individual posttest writing. Brooks and Swain also

traced students' corrections back to their source, and discovered that the learners retained every correction they discussed together during the original CW task (rather than after the reformulation or subsequent interaction with one of the researchers). This suggests that under optimal conditions, the language emerging from peer CW can stretch the learners' ZPD and allow new and corrected forms to be internalized for future use.

Conclusion

The literature on peer collaborative writing supports the design of the intervention in this dissertation, teacher-led Joint Construction, in three ways:

1. The types of scaffolding which occur in an expert/novice dynamic during CW appear to promote rich discussions about writing, which may help students understand the content, organization, and language needed to write independently in the target genre. Joint Construction by its nature creates this expert/novice scaffolding.

2. There is some evidence that not only are collaboratively written texts better quality, but that students' subsequent independent writing benefits from the collaboration in ways that remain to be fully investigated. Since the TLC has been claimed to benefit students' writing, it is possible that some learning can be attributed to the Joint Construction stage.

3. CW creates an environment in which languaging naturally occurs, which is beneficial for ESL students. In addition, students appear to retain at least some of the language features negotiated during LREs in their future writing.

This study builds on these findings and addresses two gaps in the literature. First and foremost, the literature on the TLC, although compelling, lacks experimental research using controlled designs, pre- and post-intervention probes, and random sampling. In fact, quantitative studies conducted within an SFL framework are

exceedingly rare. It is clear from the growing body of case study, qualitative, nonexperimental, or descriptive studies that researchers, teachers, and students see progress in writing when a language-informed, genre-based pedagogy is well implemented. However, empirical support from stronger research designs is needed. Related to this is concern over the measures used to capture changes in students' writing across time and between conditions. Metrics for fluency, complexity, and accuracy common in the CW research are either absent from or operationalized very differently in genre research. Writing quality is operationalized in different ways in different studies, using measures that are not always well explained in terms of validity and reliability (this is a broader problem in L2 writing research; see Polio, 1997; Polio & Shea, 2014). The Joint Construction stage, in particular, has not yet seen any experimental research or analysis of students' post-instruction writing, despite the relatively well-studied benefits of other forms of CW.

Second, there is a lack of research that seeks to connect the process of CW—in this case, the types of dynamic, contingent scaffolding that occur during Joint Construction—with outcomes for students' subsequent IW. This is vital if any claim is to be made for the effectiveness and necessity of this stage within the context of the TLC (e.g., Rose & Martin, 2012). The hypothesis being tested is that the "guidance through interaction in the context of shared experience" (Martin, 2009, p. 15) which Joint Construction affords has a unique benefit above and beyond studying exemplar texts.

Since all the small-scale and descriptive studies that have investigated the TLC and Joint Construction point to the effectiveness of this pedagogy and the value of the CW stage, the need for a rigorous experimental or quasi-experimental design is

apparent. Furthermore, the complex interactions of texts, students, and teachers in this activity make a mixed-methods design attractive for its ability to capture multiple aspects of students' writing development. This research represents a modest attempt to fill these gaps by investigating the effects of Joint Construction on the independent writing of one population of ESL students.

ENDNOTES

[1] Rothery (1996) explains in a note that a disadvantaged school in Australia is one in which a majority of families fall in the bottom 15% of the state's income scale, thus roughly equivalent to a Title I school in the U.S. These schools also had a large number of English learners (Gibbons, 2015).

[2] See for example these popular contemporary ESL writing textbooks, which teach reified versions of the five-paragraph essay through rhetorical modes and pay scant attention to audience, purpose, or social function: Liss and Davis (2012), Oshima and Hogue (2013), and Smalley, Ruetten, and Kozyrev (2011), which are in their 2nd, 5th, and 6th editions, respectively.

[3] From an SFL perspective, analyses of staging and evaluations of quality are inextricably linked to the language used to realize the text. With this caveat in mind, however, the categorization will prove useful.

[4] Non-restrictive relative clauses (e.g., "my house, *which is in a quiet neighborhood*, …") are hypotactic since they extend the meaning of a noun or clause much like a subordinating conjunction. Non-restrictive clauses, unlike their restrictive counterparts, are not embedded in a noun phrase (contrast "the house *which I grew up in*…"). Biber (1992, p. 146) draws a similar distinction—syntactically rather than semantically—between "structural elaboration" clauses (including restrictive relative clauses) and "framing clauses" (which include non-restrictive relative clauses).

[5] The sample size is not specified in this article.

[6] An experiential grammatical metaphor is essentially the kinds of normalization discussed above (e.g., "removing people" becomes "the removal of animate objects," Mahboob et al., 2011, p. 134). In a logical metaphor, a conjunction (the most *congruent,* or expected, means of connecting clauses) is replaced by a less congruent grammatical form such as a prepositional phrase (e.g., *so* replaced by *as a result*).

[7] The articles only appear to be out of order because of the confusing way that *Linguistics and the Human Sciences* dates its issues. The copyright on the Dreyfus et al. paper is 2011, but its volume (4) is cited as 2008.

Chapter 3

METHODOLOGY

In order to investigate the impacts of Joint Construction on adult ESL students' subsequent ESL writing, I conducted a quasi-experimental study using a balanced, embedded, mixed-methods design (Creswell & Plano-Clark, 2011). The design, visualized in Figure 3 at the end of the chapter, embeds quantitative and qualitative strands *equally* within a quasi-experimental study (an option not discussed by Creswell and Plano-Clark). Students' writing is analyzed using different tools with no priority for either the qualitative or quantitative approaches to detecting and understanding the effects of Joint Construction. The research questions are as follows:

1. Is students' descriptive writing different in quality, length, or complexity after participating in Joint Construction within the Teaching/Learning Cycle compared to genre-based instruction comprising Deconstruction of models alone?

2. What are the dynamics of the scaffolding that occurs during Joint Construction?

3. What elements of the Joint Construction and the collaboratively written text are taken up in students' subsequent independent writing?

The research design is "embedded" in the evolving terminology of mixed-methods research because it incorporates multiple sets of both qualitative and quantitative data; the first two research questions draw on different sets of data (Creswell & Plano Clark, 2011; see Table 3); and the final question requires the merging of qualitative and quantitative data, unlike concurrent designs in which the

strands are analyzed separately and combined in the interpretation (Onwuegbuzie & Johnson, 2006). One key goal of this study is to interpret any quantitative and/or qualitative differences in treatment students' posttest writing by tracing them to specific scaffolding practices and interactions during the Joint Construction. The qualitative analyses of student writing also expand on the quantitative results since not all aspects of students' writing can be captured in statistical measures. At the same time, the quantitative analysis of a substantial corpus of student writing can reveal patterns and differences that may not be evident in the close reading of individual papers. Furthermore, computerized analyses allow inferences to be drawn that would be impractical with manual coding (Lu, 2010). Consequently, the philosophical position that underlies this mixed approach is one of pragmatism since it attempts to bridge different ways of understanding the complex social and cognitive phenomenon of writing (R. B. Johnson & Onwuegbuzie, 2004).

In this chapter, the participants (students and teachers) are described in the context of the research site. Then, the materials and procedures for the control and treatment groups are presented. Next, the sources of data are introduced and the quantitative measures are defined, with the validity and reliability of each. The data analysis section explains the quantitative analysis strategy and the procedures for coding the qualitative data as well as the scheme for integrating the two strands of data. The chapter ends with results from a pilot study.

Participants

Teaching Context

The student population comprised adult ESL learners enrolled at the University of Delaware English Language Institute (ELI). The ELI's intensive English program offers six levels of instruction to international students in eight-week sessions. The target for this study is Level IV, which is a mid-to-high intermediate level of English proficiency. Students in this level come to the ELI for many reasons: most are preparing for undergraduate or graduate degrees in the U.S. (for which they will need approximately 6 months of further study after Level IV); others come on exchange programs from their home universities; some study English for professional purposes; and yet others have personal reasons for improving their language skills. The largest sending countries at the time of the study were China and Saudi Arabia, each comprising about 33% of the ELI's overall population, with the remaining students representing over a dozen different countries, predominantly in East Asia and South America. In any class, there is typically a mixture of students who are new to the ELI, those who have been promoted from the previous level, and some who are repeating the level. Students are assigned to sections within levels by the ELI administration each session, but may change sections in the first three days of the session, subject to the availability of seats. New students may also take a re-placement test in the first week if they feel they have been misplaced.

The ELI's curriculum is skills-based. Students take one listening/speaking and one reading/writing class. Morning classes (100 and 105 minutes, respectively) meet every day. Afternoon classes are longer (120 and 135 minutes, respectively) but do not meet on Fridays. Level IV (high-intermediate) was chosen for several reasons. It was

anticipated based on previous enrollment patterns to be large enough to facilitate a quasi-experimental study; students at an intermediate level can be expected to show measurable progress in a relatively short period; and certain members of the Level IV faculty had previously expressed interest in adopting genre-based writing teaching methods. Although I am a full-time faculty member at the ELI, and thus this is a convenience sample to some extent, I do not usually teach this level and did not teach it during the study. I had no supervisory responsibilities over the faculty who teach this course. The research was approved by the Institutional Review Board (Appendix A) and by a vote of the full-time faculty (January 23, 2015), per ELI policy.

Random Assignment

Since students are placed in classes by the ELI administration and can change sections once during the first three days of the session (subject to availability of space), it was impossible to assign students randomly to the treatment and control conditions. Therefore, once teachers had given informed consent to participate (Appendix B), their sections were randomly assigned to conditions. This was effected using a random number generator with two constraints: that morning and afternoon classes be evenly divided between conditions (to control for any effect of time of day) and that the one teacher who taught two sections should serve as a self-control (i.e., at the flip of a coin, one of her sections was assigned to the control and the other to the treatment condition).

Students

In the end, due to unexpected changes in enrollment, only nine sections of Level IV ran during the planned study period of Session I, 2015 (August-October).

One teacher was new to the level and declined consent to participate (see below). In addition, it emerged that several students were under the age of 18, a situation I had not anticipated when seeking IRB approval. As such they were therefore unable legally to give informed consent, so their data were not collected. Furthermore, an unexpectedly high number of students (nine treatment and six control) declined to sign the consent form (Appendix C) and were therefore excluded from the study, as were students who tested out of the level in the first week, those who moved into the level or arrived at the ELI too late to complete the pre-test, and those who missed a class day during the intervention (n = 6, split equally between conditions). This left a total of only 60 students, with 29 in the participating four treatment sections (C, E, G, and H) and 31 in the four control sections (A, B, D, F).

Since this number would have made the quantitative analyses vastly underpowered to detect even very small effects, I decided to repeat the intervention in Session II (October-December, 2015), despite the validity threats that move entailed, which are discussed in Chapter 6. All seven teachers from Session I were placed in Level IV classes in Session II (with the same teacher still taking two sections). A new section was added, but the teacher declined to participate. Because the number of teachers and the time of their classes (morning or afternoon) in Session II were identical to the schedule from Session I, and in order to prevent contamination of the control condition,[1] the sections were not reassigned to conditions; that is, the treatment teachers in Session I taught treatment sections in Session II (labelled CC, EE, GG, and HH). Likewise, the control sections in Session II were AA, BB, DD, and FF (Table 1). Consequently, it would be most accurate to say that the teachers—rather than the sections or students—were randomly assigned.

It is not uncommon for students to repeat Level IV. Therefore, the nine students (seven treatment and two control) who had already taken the level in Session I were excluded from the study in the second session only, although their data were collected. (One student was under the age of 18 in Session I and was therefore unable to give consent under IRB regulations; therefore, even though she turned 18 before the start of Session II, she still could not be included in the data.) The essays of these repeating students were not rated but they were typed and retained for qualitative analysis since the treatment students did of course participate in their class Joint Construction. It should be noted that students repeating Level IV in Session I were not excluded, and that one student took a different Level IV course (business writing) in Session I, which was not participating in the research study, and therefore her data are included in Session II. Two students in Session II missed a class (one treatment, one control), one student in the treatment condition was excluded for not writing the posttest, and another treatment student did not write a pretest. Consequently, of the 72 consenting students in Session II, 68 have complete data, and 59 did not overlap with those in Session I (Table 1).

Students were asked at pretest to provide demographic data: age, gender, nationality, first language, level of education in the home language, number of years of English study, new or returning student, and number of times in Level IV. The demographics of the students (including those with missing data and repeaters from Session I) are summarized in Table 2.

Table 1 Distribution of Participating Students by Section and Session

	Treatment					Control			
	Session I		Session II			Session I		Session II	
Section	Total	Data	Total	Data	Section	Total	Data	Total	Data
C	8	6	14	9	A	9	9	7	7
E	8	7	9	9	B	5	4	7	7
G	7	7	3	3	D	11	10	8	5
H	10	9	13	9	F	8	8	11	10
Total	33	20	39	30	Total	33	31	33	29

Notes. Total = the total number of consenting students in each section. Data = the number of students from whom complete data were retained for analysis.

Table 2 Pretest Comparison of Treatment and Control Groups

	Treatment (n = 72)	Control (n = 66)
Age (Mean)	20.68 (*SD* = 4.01) Range: 18-35	21.39 (*SD* = 4.70) Range: 18-38
Gender	50 male (69%) 22 female (31%)	38 male (58%) 28 female (42%)
Education		
Less than high school	1 (1%)	2 (3%)
High school	47 (65%)	38 (58%)
Some college	8 (11%)	10 (15%)
Undergraduate degree	11 (15%)	14 (21%)
Graduate degree	4 (6%)	2 (3%)
Years of English (Mean)	6.09 (*SD* = 4.75) Range: 0.2 to 20	6.50 (*SD* = 4.49) Range: 0.33 to 18
New students	28 (39%)	30 (45%)
Repeating students	11(15%)	8 (12%)
Number of times repeating level IV	1.36 (0.53) Range: 1-3	1.13 (0.50) Range: 1-2
Country of origin		
China	46 (64%)	34 (52%)
Saudi Arabia	18 (25%)	16 (24%)
Japan	3 (4%)	5 (8%)
Others	5 (7%): Turkey, Yemen, Kuwait, Colombia	11 (17%): South Korea, Colombia, Taiwan, Yemen, Kuwait, Tunisia
First Language		
Chinese	46 (64%)	35 (53%)
Arabic	20 (28%)	21 (32%)
Japanese	3 (4%)	5 (8%)
Others	2 (3%): Spanish	5 (8%): Korean, Spanish

Note. This table includes all consenting students, some of whom are excluded from later analyses (Table 1).

Teachers

Research Question 2 focuses specifically on instructors' practices during Joint Construction. As was shown in Chapter 2, this has already been a fruitful source of research into CW and the TLC. Thus, the classroom teachers were also participants in this study. ELI instructors are full- and part-time teachers, all of whom have at least a master's degree in Teaching English to Speakers of Other Languages (TESOL) or a relevant degree with TESOL coursework, per the guidelines of the University Consortium of Intensive English Programs. All teachers in the study had taught the target class at least once previously.

ELI teachers come from a variety of backgrounds and engage in a range of teaching pedagogies and styles. Six of the seven teachers in this study all held Master's degrees in TESOL or related fields and had been teaching ESL for between six and 21 years (average 14 years).[2] Three were relatively new to the ELI, but all had taught the level at least twice and as many as 20 times. None was specifically trained in SFL, although three were aware of the genre-based method of teaching, and some had attended workshops that I have given at the ELI and professional conferences to introduce this pedagogy. Only one teacher was already known to be using the TLC regularly in this level, and three others had conducted some whole-class collaborative writing. Therefore, training was provided for all teachers on the first day of the first session.

Materials and Procedures

The mode-based writing curriculum for this Level IV course consists of descriptive writing, comparisons and contrasts, and summaries. In addition, the course contains instruction in grammar (primarily relative, noun, and adverb clauses and an

introduction to passive voice), vocabulary, and reading comprehension. In order to reduce variability between sections, this study took place in the first two weeks of each session using a unit which I designed for this project in collaboration with the Level IV coordinator (Appendix D). Teachers all used the same textbook[3] and were asked by their level coordinator to follow a standard "timeline" of lesson plans in the first two weeks (Appendix E).

As it is typically taught, the course begins with descriptive writing. The curriculum and syllabus suggest but do not specify particular genres of description, and many teachers follow the mode-based version of process writing discussed in Chapter 1, assigning descriptive "essays."[4] For this study, I developed materials that teach students to write a newspaper or magazine article about a featured home for sale, a genre which is primarily descriptive in its rhetorical mode. Clearly this is not an academic genre; however, the course is not academic in focus. At the ELI, most students follow a curriculum in English for "general" purposes until they reach the advanced level of proficiency, where English for Academic Purposes (EAP) classes begin. It is also evident that most students have no particular need to write featured home articles, which is a limitation of the study. However, descriptive writing is assigned in the intermediate levels to develop students' writing skills since descriptions often form part of more complex academic and professional genres (de Silva Joyce & Feez, 2012), and the somewhat playful nature of the genre was hoped to be motivating.

Throughout the period of the study, teachers followed a standardized timeline in reading and grammar instruction, developed by the level coordinator in order to incorporate the research unit without disrupting the course or allowing too much

variance among sections (Appendix E). The first reading unit in the textbook in Session I is about the news media, hence the choice of a newspaper genre for the writing task. In Session II, a different reading book is used, which starts with a unit on marketing that naturally leads to tasks such as the featured home article, which forms part of the real-estate genre set. Relative clauses (called adjective clauses in the grammar textbook) are introduced early and are a structure that is new to most students, particularly those who have followed the ELI's curriculum in earlier levels. This correspondence between the writing and grammar instruction is more than a coincidence of timing. Relative clauses are frequent and functional in descriptive genres since their purpose is to specify, describe, and expand on the meaning of noun phrases (Biber, 1992; Halliday, 1996). Therefore, the instructional unit provides an opportunity for students to read, analyze, and write relative clauses in authentic contexts.

Using the TLC framework, all students study models (Deconstruction) and write their own featured house articles (Independent Construction), but only the treatment classes engage in Joint Construction, while the control groups deconstruct an additional model text. Treatment sections also conduct an additional Joint Construction in the first week using a slightly different descriptive genre so that students and teachers are familiar with the activity. The unit was tested in a pilot study in May, 2015. An earlier pilot (March, 2015) used a different genre (a product review, see Appendix F), which was ultimately rejected for the study and is discussed at the end of this chapter (see also Caplan & Farling, 2016).

The following procedures were followed; all instructional materials can be found in Appendix D.

1. Week 1, Monday: teacher planning day; no classes. Treatment and control teachers met with me for training. Teachers in both conditions reviewed the materials, learned about the genre, and discussed the Deconstruction stage. Teachers in the treatment condition separately participated in a demonstration Joint Construction of a featured home article and discussed the types of scaffolding they might engage in during the activity.

2. Week 1, Tuesday: diagnostic essay. All sections gave the same writing diagnostic, a descriptive task. The diagnostic is an existing part of the course but was also used as a pretest for the research to control for initial writing quality and language proficiency. In Session II, the diagnostic was moved to Wednesday because of absences on Tuesday in Session I.

3. Week 1, Tuesday-Wednesday: consent. All students were asked to complete consent forms. If they did not give consent, they still participated in all class activities, but their data were not collected, and they were positioned outside the camera shot (treatment classes).

4. Week 1, Thursday: practice Joint Construction (treatment classes only). Teachers in treatment sections conducted a practice Joint Construction on a descriptive task that is different from the intervention to develop task familiarity ("what are some ways we get the news?" in Session I and describing a store window in Session II). The lesson was video recorded, and teachers met with me between the lesson and Wednesday of Week 2 to discuss and refine their implementation of the Joint Construction. This one-on-one coaching has been found to be especially helpful by teachers learning to use the TLC for the first time (Brisk & Zisselberger, 2010) and was included to give both teachers and students more confidence with the activity for the actual treatment session. Control sections instead practiced writing an ungraded paragraph. Both conditions highlighted paragraph structure.

5. Week 2, Monday: additional diagnostics. On the basis of an optional re-test taken in Week 1, a small number of new students moved up from Level III to Level IV (continuing students are not allowed to take the retest and may not skip levels). New students moving into Level IV were given the diagnostic and asked to complete the consent procedure.[5]

6. Week 2, Tuesday: Deconstruction. All teachers used the provided materials and lesson plans (Appendices D and E) to deliver instruction on the target genre, the featured house article, by analyzing two models

and discussing their staging and language choices. Teachers checked the activities on their lesson plans and the lessons were video recorded for fidelity (see Chapter 4).

7. Week 2, Wednesday: intervention. In both conditions, classes worked with a photograph and floor plan of a beach house. Treatment classes conducted Joint Construction for approximately 60 minutes, which was recorded with digital video cameras for analysis. Control classes, meanwhile, read another model text about the same beach house and completed reading comprehension and grammar activities. This controlled for time and instruction by extending the Deconstruction stage. All classes were recorded to check for fidelity.

8. Week 2, Thursday: Independent Construction. All students wrote another text in the target genre using a previously unseen photograph and floorplan of a house (60 minutes). Teachers were asked to assign a grade in order to encourage students to take the task seriously. Students wrote by hand without help, dictionaries, access to the teaching materials, or other resources.

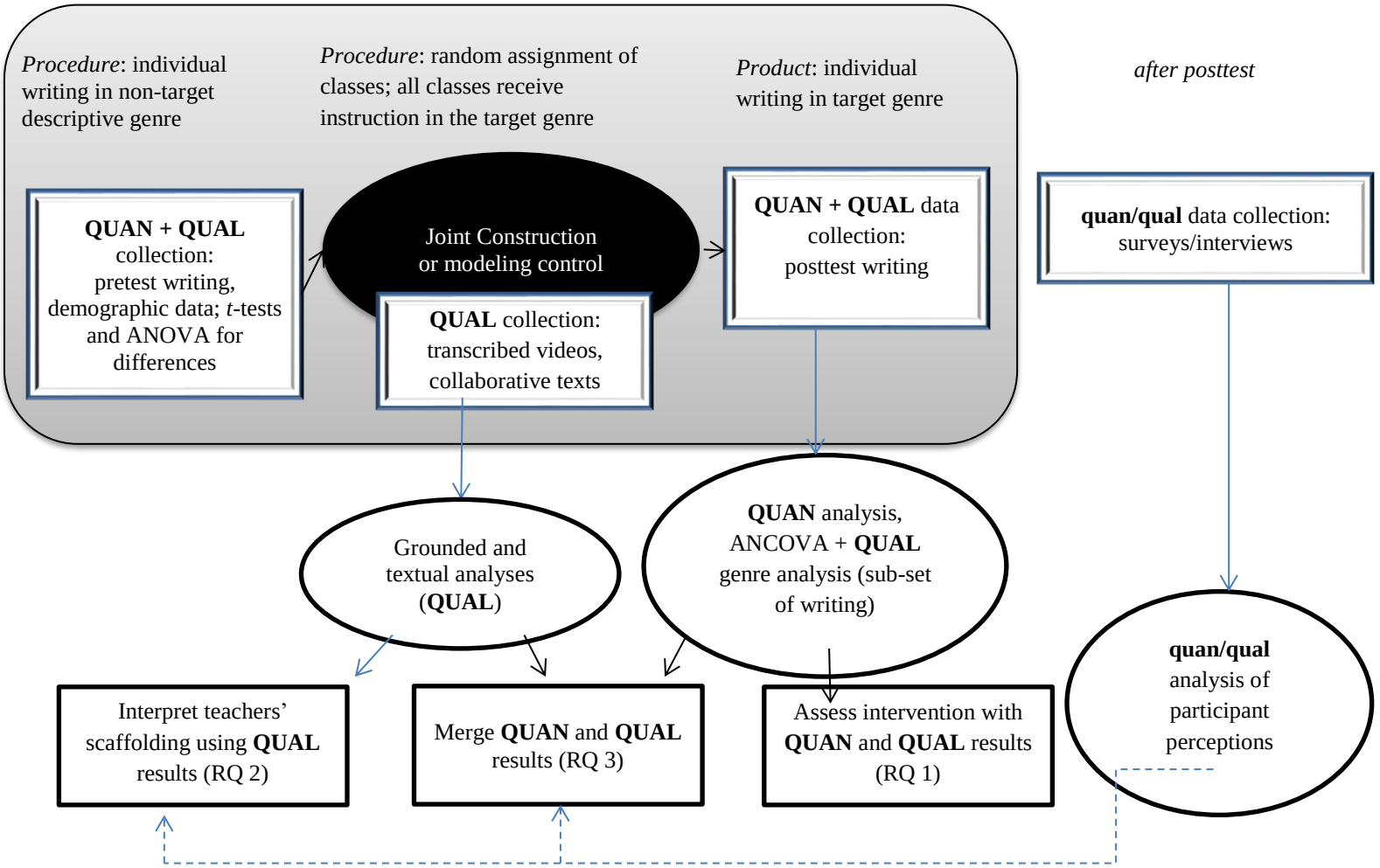
9. Week 2, Thursday/Friday: survey. Students in all classes were asked to complete an online survey about the activities (Appendix F). The response rate was high: 49 complete surveys out of 66 students (74%) in Session I and 60 complete surveys out of 72 in Session II (83%).[6]

10. Weeks 3-5: interviews. Teachers of the treatment classes were invited for follow-up interviews (Appendix G).

The design of the study is summarized in Figure 3, below, which illustrates where the data for both qualitative and quantitative strands were collected and analyzed. Using Creswell and Plano Clark's (2011) conventions, the shaded box is the embedded quasi-experiment itself, with the pretest, intervention, and posttest. The interviews and surveys occurred after the posttest, but were secondary to the main design and thus appear outside the box. The arrows track the data through stages of quantitative (Chapter 4) and qualitative (Chapter 5) analysis to the research questions which they will ultimately be used to answer (Chapter 6).

Figure 3 Research Design Diagram

Note: Constructed following the scheme in Creswell & Plano Clark (2011, p. 124). Mixed-method notations: QUAN, QUAL = quantitative and qualitative strands have equal priority; quan, qual = quantitative or qualitative strands have a lesser priority. Using the shorthand recommended by Creswell and Plano Clark (p. 109), the present study would be written: *QUAN(QUAL)* → *quan/qual = assess and explain the effectiveness of Joint Construction*
That is, qualitative and quantitative strands have equal balance in an embedded design whose primary purpose is to assess and explain the effects of Joint Construction.


Procedure: individual writing in non-target descriptive genre
Procedure: random assignment of classes; all classes receive instruction in the target genre
Product: individual writing in target genre
after posttest
QUAN + QUAL collection: pretest writing, demographic data; *t*-tests and ANOVA for differences
Joint Construction or modeling control
QUAL collection: transcribed videos, collaborative texts
QUAN + QUAL data collection: posttest writing
quan/qual data collection: surveys/interviews
Grounded and textual analyses (**QUAL**)
QUAN analysis, ANCOVA + **QUAL** genre analysis (sub-set of writing)
quan/qual analysis of participant perceptions
Interpret teachers' scaffolding using **QUAL** results (RQ 2)
Merge **QUAN** and **QUAL** results (RQ 3)
Assess intervention with **QUAN** and **QUAL** results (RQ 1)

Data Collection

As shown in Figure 3, three primary sources of data were collected, plus the secondary surveys and interviews (the latter were saved for future analysis) and also data for fidelity checks. The quantitative measures and qualitative coding schemes generated from these data sources are discussed later in this chapter.

1. Students' pretest and posttest writing: Both were individual tasks conducted under test conditions with a one-hour time limit. Student demographic data were also collected at pretest. The anonymized handwritten manuscripts were typed verbatim by myself and three graduate assistants, with 20% checked for typographical errors. Spelling errors were corrected for use in some of the subsequent analyses. Obvious punctuation errors (e.g., a missing period at the end of a paragraph) were fixed, but other errors in punctuation and capitalization were retained.

2. Joint Construction sessions in treatment classes were video-recorded and transcribed, and the jointly written text retained for analysis. Only the portions of the videos in which text was actually being composed were transcribed: brainstorming, planning, and classroom management segments were noted and timed but not transcribed as superfluous to the present study.

3. As a second phase, teacher interviews and student surveys were conducted (Appendices F and G). The survey includes quantitative (Likert-type scale) and qualitative (open-ended) components. These data serve as participant verification of the themes and scaffolding observed in the Joint Construction and also highlight teachers' strategies and students' perceptions of learning as well their reactions to the unit.

4. As noted, fidelity measures were taken in the form of checklists for teachers and video recordings of both treatment and control classes.

Table 3 aligns the sources of data with the three research questions and lists the measures used to answer each question. The quantitative measures are described in the

following section. The data analysis section of this chapter explains the statistical tests and qualitative coding techniques, as well as the strategy for integrating qualitative and quantitative data in order to answer Research Question 3.

Table 3 Data Collection and Measures by Research Question

Research Question	Data Collection	Measures
1. Is students' descriptive writing different in genre completion, descriptive quality, complexity, and/or length after participating in Joint Construction within the Teaching/Learning Cycle compared to genre-based instruction comprising Deconstruction of models alone?	Pretest and posttest writing	1. Genre completion (posttest) 2. Descriptive quality 3. Language proficiency (pretest) 4. Length (word count) 5. Complexity measures (Table 4)
2. What are the dynamics of the scaffolding that occurs during Joint Construction?	Joint Construction transcripts and the texts written collaboratively	1. Qualitative analysis of all transcripts 2. Descriptive analysis of patterns of scaffolding in each class (quantitized analysis of qualitative findings)
3. What elements of the Joint Construction and the collaboratively written text are taken up in students' subsequent independent writing?	Posttest writing Joint Construction transcripts and texts Student surveys and teacher interviews	1. Qualitative analysis of selectively sampled student posttests 2. Evidence and analysis of uptake of content, lexical, and grammatical elements from the JC to IW in the treatment condition

Quantitative Measures

Quality

Two aspects of quality are captured for quantitative analysis: first, the extent to which the text instantiates the target genre of a featured house article, and second the descriptive quality of the writing. The decision to use two quality measures was driven by an initial reading of the posttests, when it became clear that a surprising number of students had produced texts that were clearly not featured home articles. Therefore, students' progress can in part be determined by their ability to write the genre that the unit purposed to teach. This measure is distinct from the overall descriptive quality of the text since it is possible to write a good description in many different genres (see, for example, the taxonomy of genres in Rose & Martin, 2012, p. 130). A holistic descriptive rating, largely agnostic to genre, shows the extent to which students were able to use the rhetorical mode prescribed in the curriculum.

Genre Completion

I used an iterative reading of the posttests to produce a rubric with four levels corresponding to the genres within which the students' writing fell (Appendix H). I then identified anchors for each descriptor with the assistance of a second researcher (Appendix I) and coded all the posttests. The papers were categorized as on target (fulfilling the social purpose of the featured house article genre by describing someone else's house for sale); self-sale (a text in which the writer is selling his/her own house or family home, an option not available within the target genre); description (a text in a purely descriptive genre without the function of selling the house); or a different genre altogether.

A second rater familiar with the target genre (one of the teachers from the study) was trained on the rubric and independently coded a 20% random sample from which any of her former students' papers were excluded. Agreement of 90% was achieved. Thus, my rating can be considered objective and reliable.

Descriptive Quality

Students' pretest and posttest writing samples were rated on two separate five-point primary-trait rubrics (Lloyd-Jones, 1977) that both attempted to capture the qualities of a good description (Appendix J and L). An initial attempt to rate all the papers together on a single seven-point rubric failed to achieve satisfactory interrater reliability. Three reasons emerged during a discussion of differences among the raters: the use of the same rubric for two quite different tasks at pretest and posttest; the distraction of misspelled words in many papers (the "raw" version of the typed papers was used initially since spelling is an aspect of students' word knowledge and writing ability); and the somewhat vague descriptors of the 3 and 5 ratings, which were described as being between and 2/4 and 4/6, respectively. All three problems were addressed in the second attempt at rating: spelling errors were corrected as far as possible, although some ambiguous or unidentifiable words remained (Graham, Harris, & Hebert, 2011); separate, task-specific rubrics were developed for the pretest and posttest; and the rubric was simplified to a five-point scale. However, raters were told that they could give half-point scores (e.g., 2.5) if they were unable to decide between two bands. This modification of traditional literacy research practices known as "rating augmentation" has been shown to improve reliability while preserving the validity of the instrument (R. L. Johnson, Penny, Fisher, & Kuhs, 2003; Penny,

Johnson, & Gordon, 2000a, 2000b). Agreement to within half a point (e.g., ratings of 2.0 and 2.5) is considered equivalent to an exact match.

Two recent graduates of the MA TESL program rated the pretests, and two ELI instructors rated the posttests. None had participated in the research study. The two teams of raters were trained separately. We first discussed the rubric (Appendix J for the pretest; Appendix L for the posttest) and anchor papers, which I had chosen with the help of another researcher (Appendix K for the pretest; Appendix M for the posttest). The two raters then scored and discussed sample papers excluded from the actual study until 90% agreement within .5 points in at least ten consecutive ratings was achieved. We discussed each paper and resolved any disagreements. The pretest raters scored 13 papers with overall agreement of 84.6%; over the last ten papers, agreement was 90%. The posttest raters scored 16 papers, agreeing on 13 of them to within a tolerance of .5 points for an overall agreement of 87.5%, or 90% on the last ten.

Raters then scored the papers included in the study independently, first in groups of ten to check for sustained interrater reliability, and subsequently in larger batches. The order of the essays was randomized so that raters did not read each class's tests together. Reliability was difficult to maintain, but after each batch, I either asked raters to review their scores before seeing the other rater's scores or invited the raters to meet with me to reestablish reliability by rescoring and discussing contested papers together. In the end, the raters of the pretest agreed to within a tolerance of 0.5 points on 80.7% of the papers and were one point apart on the rest, with a reasonable correlation (r = .76). On the posttest, interrater reliability was 73.1% to within 0.5 points, with no discrepancies greater than 1.0 (r = .78). The final rating was an

average of the two raters' scores (Graham et al., 2005; Moore & MacArthur, 2011), or the negotiated rating when available.

The rubrics itself have not been externally validated as no suitable rubric focusing specifically on descriptive writing was identified in previous research. The claim for validity stems from the alignment between the criteria on the rubric and the construct of descriptive writing in the preamble to the rubric, which also informs the design for the instructional unit. Similar rubrics are commonly used in writing research as a quality measure (Ferretti et al., 2000; Graham et al., 2005; Moore & MacArthur, 2011; Philippakos, 2012) and on the National Assessment of Educational Progress (National Center for Education Statistics, 2008).

It proved difficult to reach high interrater reliability even after improving the rubric, training, and scoring procedures. Conversations with the raters as well as my own impression of the data revealed two possible explanations. First, some of the papers that diverted the most from the target genre (e.g., descriptions embedded in elaborate narratives) were challenging to fit to the rubric. Second, although the students were all in the same level of the program and thus ostensibly at a similar level of language proficiency, the actual in-group variance was clearly very large. Some students wrote a handful of barely comprehensible sentences at pretest while others wrote 300 words of fairly well-constructed prose. This is characteristic of mid-high intermediate levels in ESL programs: some students are still in the early stages of acquisition, others are making rapid progress, some may have been placed a little below their actual proficiency; and others have apparently hit a plateau and are repeating the level. The resulting range of linguistic knowledge made the primary-trait

rubric difficult to apply at times. Consequently, a language proficiency score was designed for the pretests to use as a control in the data analyses.

Language Proficiency

In order to capture a measure of students' language proficiency at the start of the intervention, a simple rubric with three nominal categories was developed to use as a covariate (Appendix N). The purpose of the instrument was to identify students whose writing indicated linguistic proficiency lower than that expected at the start of Level IV, those who appeared to be typical of the expected proficiency, and those already using grammar and vocabulary that would be taught in the level. Having confirmed anchor papers with experienced Level IV teachers, I rated all the pretests. An experienced Level IV teacher unfamiliar with the study was trained on the rubric and a set of anchor papers (Appendix O) and independently scored a random 20% sample of the pretests. The second rater agreed with me on 80% of the scores. The rubric and coding can therefore be said to be reliable and objective.

Length

Length was measured as the total number of words as calculated by Coh-Metrix (McNamara, Louwerse, Cai, & Graesser, 2014). Length of text has been correlated with quality in previous L1 (Graham et al., 2005; Philippakos, 2012) and L2 writing research (Ferris, 1994; M. D. Johnson, Mercado, & Acevedo, 2012).

Complexity

Complexity has been measured in many different ways in the SLA literature, and multiple dimensions are necessary to capture the ways that complexity varies between modes and among genres (Biber, 1992). However, the purpose of this

research is not to investigate language acquisition or development (Ortega, 2003, 2015) nor to compare different genres (Biber, 1992). Since a comprehensive set of complexity metrics would be redundant, measures were limited to those that reflect the instructional goals of this genre-based unit: increasing vocabulary range (an aspect of lexical complexity), expanding the noun phrase, and using relative and other dependent clauses (an aspect of grammatical complexity that is especially pertinent at the intermediate level). The measures are summarized in Table 4 and described in detail below.

Table 4 Complexity Measures

Measure	Explanation	Data Source[a]
MLTD	Measure of Textual Lexical Diversity	Coh-Metrix
Adjective tokens	Number of descriptive adjectives	Counted
Adjective types	Number of *different* description adjectives	Counted
Adjective TTR	Type/token ratio for descriptive adjectives	Counted
C/T	Clauses per T-unit	L2SCA
DC/T	Dependent clauses per T-unit	L2SCA
DC/C	Dependent clauses as a ratio of all clauses	L2SCA
Relative clauses	Number of relative clauses attempted	Counted
Relative clauses correct	Number of correctly structured relative clauses	Coded
CN/T	Complex noun phrases per T-Unit	L2SCA
CN/C	Complex noun phrases per clause	L2SCA
Noun modifiers (NMod)	Average number of word modifying each noun	Coh-Metrix
Nominal dependents (NDep)	Average number of dependents modifying each nominal phrase	TAASSC

Note. [a] Coh-Metrix (McNamara, Louwerse, et al., 2014); L2SCA = Second Language Syntactic Complexity Analyzer (Lu, 2014); TAASSC = Tool for the Automatic Analysis of Syntactic Sophistication and Complexity (Kyle, 2016a); counted = calculated manually or in a semi-automated process; coded = manually coded.

Lexical Complexity

Two lexical measures are used. The first attempts to capture the students' range of vocabulary use. The simplest way to do so would be a type/token ratio (TTR), the number of different words in the text divided by the total word count. However, TTR is affected by text length because longer texts are more likely to contain repeated words; conversely, very short texts return unreliable TTR scores (McCarthy & Jarvis, 2010; McNamara, Graesser, McCarthy, & Cai, 2014). More valid is the Measure of Textual Lexical Diversity (MLTD), which is less sensitive to text length and has been correlated with writing quality across multiple genres as well as with other sophisticated measures of lexical diversity (McCarthy & Jarvis, 2010; McNamara, Crossley, & McCarthy, 2010).[7] The MLTD of texts longer than 100 tokens can be used reliably, according to McCarthy & Jarvis (2010). Only three pretests fall below this cut. However, the range of lengths in the posttests (160 to 522 words) strongly supports the adoption of MLTD over TTR.

MLTD is calculated by the Coh-Metrix software (McNamara, Louwerse, et al., 2014) as "the mean length of sequential word strings in a text that maintain a given TTR value" (McNamara, Graesser, et al., 2014, p. 67). Essentially, MLTD works through a text until a segment is found with a TTR of .720, known as a "factor." The reported value is the number of words divided by the number of factors, that is, "the average number of words required for a text to reach a point of stabilization" (McCarthy & Jarvis, 2010, p. 386). Texts with high MLTD values are more lexically diverse. Coh-Metrix has been found to be highly reliable in its lexical counts and calculations with both L1 and L2 writers' texts (M. D. Johnson et al., 2012;

McNamara, Graesser, et al., 2014). In order to increase the accuracy of the measure, the version of the student texts with spelling errors corrected was used.

The second lexical measure is the use of descriptive adjectives, which is a simple way to measure students' use of a specific feature targeted in the instruction of this genre. Counting adjectives was a semi-automated process: the corpus of student papers (with spelling corrected) was first tagged for part-of-speech using the reliable Stanford tagger (Nini, 2015; Toutanova, Klein, Manning, & Singer, 2015). A program called TextStat (Hüning, 2014) then produced a list of all the adjectives in the corpus with their frequencies. This list was manually edited to remove nondescriptive (i.e., classifying) adjectives (e.g., first, other, outside, such) and tagging errors (e.g., dining, quality, grill). The edited list was used in the program AntConc (Anthony, 2014), which produces key-word in context (KWIC) displays that can be exported to Excel. Finally, Excel functions were used to count the types and tokens of descriptive adjectives in each student's posttest. The TTR for adjectives was also computed in order to identify papers that use a small number of descriptive words repeatedly versus those that display a broader vocabulary. A value closer to 1.0 indicates greater diversity and less repetition of adjective use. In this case, only the adjectives are included in the calculation so the effect of text length should be less strong (MLTD is not available since it can only be calculated from complete texts).

It should be noted that this procedure, although efficient, is not without flaws. If students make word form errors, the tagger might miss an adjective. However, this also points to limited word knowledge, and a non-systematic scan of the papers did not suggest this was a severe threat. Furthermore, adjectives are not the only way to specify nouns: noun modifiers (e.g., beach house) are frequent in English. However,

they are not part of the instructional materials, most noun modifiers have a classifying rather than a descriptive function, and noun phrase elaboration is captured separately, below. Therefore, the adjective type, token, and TTR measures are reasonable proxies for a specific area of lexical sophistication.

Grammatical Complexity

The grammatical measures likewise comprise broad measures of clausal complexity and more specific targets of relative clauses and noun phrase elaboration.

Clausal Complexity

As Wolfe-Quintero, Inagaki, and Kim (1998) proposed in an important research synthesis, one purpose of measuring complexity is to estimate the effect of an intervention on language use, and since the instructional unit in this study was taught while students were learning to use relative clauses the broad measures chosen here indicate the overall amount of clausal complexity in students' writing. There are three possible candidates, which are all mathematically related, but there is a lack of consensus in SLA research as to the most reliable (Ortega, 2003; Wolfe-Quintero et al., 1998). Therefore, I include all three: the ratio of clauses per T-unit (C/T), the ratio of dependent clauses to T-units (DC/T), and dependent clauses as a proportion of all clauses (DC/C). A T-unit is defined as an independent clause plus all its attendant dependent clauses, prepositional phrases, and non-finite clauses. There is some evidence for the validity of all three measures in previous L2 writing research as reasonably valid and reliable measures of the development of complexity, but no compelling reason as yet to choose one over the others (Foster & Skehan, 1996; Ortega, 2003; Storch, 2005; Wolfe-Quintero et al., 1998).

Lu's (2014) L2 Syntactic Complexity Analyzer (L2SCA) provides all three metrics, defining a dependent clause as "a finite adverbial, adjective [i.e., relative], or nominal clause" (Lu, 2010, p. 482). Lu established that the L2SCA has high reliability by comparing human and computer annotations of a sample of texts. Using a metric known as an F score, which calculates the agreement between the human and machine identification of syntactic elements, a score of .932 was obtained for dependent clause, .968 for clauses, and .985 for T-units (where 1.000 would indicate perfect agreement). Significant correlations between computer and human ratings were achieved in the test sample using essays from English majors in Chinese universities, a similar population to the present study sample, for all three ratios: C/T (r = .978), DC/T (r = .950), and DC/C (r = .851), $p < .01$. L2SCA's calculations are conducted after the texts has been analyzed by the Stanford tagger (Toutanova et al., 2015), which in addition to tagging texts for parts of speech, is able to parse the syntax of texts with a high degree of accuracy.

More recently, Kyle (2016b) has a developed a simpler interface that reproduces the L2SCA output along with a much larger and more fine-grained set of complexity indices. The program is called TAASSC (Tool for the Automatic Analysis of Syntactic Sophistication and Complexity) and is available on the author's website (Kyle, 2016a). According to the technical description of the syntactic analyzer, very little special preparation is needed to run L2 students' writing through L2SCA (Lu, 2010) and, consequently, TAASSC. Although the software is designed for advanced L2 writers whose errors tend to be in areas that do not affect the structure of sentences, the two most important errors for the present analyses cause no difficulty. Fragments are coded as clauses even if they are missing a verb phrase. Therefore, a fragment

headed by a subordinator (e.g., *Because it is very cold*) would be parsed as a dependent clause. Comma-splices (sentences with two independent clauses but no conjunction or semi-colon) only affect measures of sentences and not T-units or clauses. Such errors are typical of students' developing language skills at the intermediate level. In addition to correcting spelling, the only changes made to the raw texts before processing were to add missing sentence-final punctuation (e.g., when a period is omitted at the end of a paragraph or when one was clearly intended between sentences).

There are important caveats to the validity of using subordination as a measure of complexity for L2 writers (Lambert & Kormos, 2014; Ortega, 2003). Spoken English is marked by greater clausal complexity than written English, particularly in its use of coordination but also, to a lesser extent, subordination (Biber et al., 2011). Effective academic writers in English use fewer dependent clauses and express complexity in other ways, such as nominalization, expansion of the noun phrase, and infinitives, the last of which in SFL would be analyzed as a type of dependent clause but not in the traditional grammar of Coh-Metrix and L2SCA (Crossley & McNamara, 2014; Ferris, 1994; Lu, 2011). Lu noted a curvilinear relationship between DC/C and level of proficiency across four years of English studies in Chinese universities: that is, students' use of subordination peaks in the upper-intermediate levels and then declines as students develop more advanced language proficiency and academic writing skills. This finding was replicated in Crossley and McNamara's (2014) analysis of essays written by students in the highest levels of Michigan State University's IEP. Several studies have also reported this pattern using the C/T metric (Ortega, 2003; Wolfe-Quintero et al., 1998). This is likely because the number of verb

phrases decreases as students' proficiency increases due to greater use of reduction and grammatical metaphor, as predicted by SFL analyses of scientific and academic writing (Halliday & Martin, 1993; Schleppegrell, 2004).

This evidence would mitigate against the selected measures of complexity. However, the students in this study are at a lower level of English proficiency than those whose essays comprise the MSU corpus, the course they are taking is categorized as "general" not academic English, and as noted above, descriptive genres are not typical in academic writing (de Silva Joyce & Feez, 2012). In fact, Crossley and McNamara (2014) were surprised that the incidence of dependent clauses in their study correlated positively with human quality ratings, which they attributed to the choice of a descriptive rather than argumentative prompt in their corpus. To the extent that description has an informational purpose, this finding is corroborated by Biber (1992), who found that the use of complexity structures on the "structural elaboration of reference dimension" was greatest in informational genres, which includes restrictive relative clauses (p. 153). Additionally, the grammar of "framing elaboration," which includes adverbial dependent clauses and non-restrictive relative clauses was also more frequent in less academic and more descriptive written genres (p. 155). Therefore, Crossley and McNamara speculate that raters of the MSU corpus were responding positively to the use of subordination as appropriate to the task rather than the academic register the researchers had expected. Furthermore, the grammar curriculum of the UD ELI focuses on expanding learners' use of dependent clauses in the intermediate levels before teaching them how to make the shift to academic writing in higher levels, which is consistent with Lu's (2011) data. For all these

reasons, measures of clausal complexity and subordination remain relevant to the study.

Relative Clauses

Since the instructional focus in the first weeks of the course is on relative clauses, the number of relative clauses attempted and produced grammatically was calculated. Relative clauses were identified using a semi-automated process. Students' writing, with spelling corrected, was parsed and tagged using a software package that was created to replicate Biber's (1992) study, the *Multidimensional Analysis Tagger* (Nini, 2015). The package once more calls the Stanford Tagger (Toutanova et al., 2015) to identify parts of speech syntactically. The resulting tags are further refined using categories proposed by Biber, some of which are useful for identifying relative clauses. The AntConc software (Anthony, 2014) handles tagged texts well and was able to produce KWIC output of all sentences containing the following tags:

- WDT: *which* or *that* used as a relative pronoun in restrictive relative clauses (e.g., there is a deck *which has wonderful view of the sea*)
- WP: non-restrictive clauses (e.g., John, *who is a successful business man*) and *whose* as a relative pronoun (e.g. a dining room *whose wall set up a old fireplace*)
- that_IN: the IN tag captures prepositions and subordinating conjunctions, a very broad category. While this is not an issue in well-formed relative clauses, which are correctly disambiguated by the parsing software, some relative clauses are inappropriately tagged this way because of syntactic errors, so all instances of "that_IN" were manually reviewed (e.g., This a good place *that we can playing games and watching TV*).
- WZPAST: reduced relative clause containing a past participle verb, usually a reduced passive clause (e.g., there is a dining room and kitchen *connected together*)

- WZPRES: reduced relative clause containing a present participle verb (e.g., You can also enjoy the sunlights *coming through the windows*).

I reviewed all the sentences identified in this way and removed those that did not contain attempts at relative clauses (e.g., the use of *whatever* as a subordinator; exclamations like *what a great kitchen!*'; inaccurate attempts as passive voice, such as *the house located in Miami;* or participle forms used in non-relative structures, such as *enjoy doing* or, somewhat surprisingly, *dish washing machine*).

After reading through the clauses several times, I developed a rubric and coded each clause as inaccurate, partly accurate, or accurate (Appendix P). This rubric recognizes the level of attainment expected based on the ELI curriculum (e.g., *whose* is not taught at this level, and only brief attention is paid to the use of prepositions in relative clauses) and does not consider restrictive versus nonrestrictive clauses, which are often hard to evaluate. The rubric was discussed with the Level IV coordinator, who also coded a random 20% sample of both the pretest and posttest clauses. Interrater agreement of 92.1% was obtained on 191 clauses. Therefore, it can be claimed that my codings are sufficiently reliable and objective.

Relative clauses are a form of embedding, which is a type of dependent clause that signals increased complexity in writing, even as other types of subordination decrease (Crossley & McNamara, 2014). Furthermore, the use of relative clauses has been shown to predict holistic quality in ESL writing (Ferris, 1994). Attempted but incorrectly executed clauses are counted in recognition of the typical pattern of SLA, in which errors in new grammar structures are signs of changes in students' interlanguage as they make progress towards target-like production.

Noun Phrase Elaboration

Since descriptive writing might be expected to involve elaborated noun phrases, and since precision in description is a focus of the instructional unit, two measures of noun phrase elaboration were adopted. The mean number of modifiers per noun phrase was selected from the Coh-Metrix output. This captures not only adjectives, measured separately above, as an index of lexical sophistication but also the use of articles and noun modifiers (e.g., *a tea table* is a noun phrase with two modifiers). In addition, L2SCA provides a measure of complex nominals, defined as noun phrases that include adjectives, possessives, prepositional phrases, relative clauses, participles, or appositives, as well as noun clauses and gerunds or infinitives used as subjects (Lu, 2010). Complex nominals are reported as number of words in complex nominals per clause (CN/C) and T-unit (CN/T), and both versions are retained for analysis. CN/C and CN/T correlated well with human annotators in Lu's validation study with correlations of .867 and .896, respectively. TAASSC was once more used to generate the L2SCA statistics (Kyle, 2016a).

Even though it is relatively new and has only been used and validated in Kyle's (2016b) dissertation, one of TAASSC's original measures was added to the study data. Unlike L2SCA and Coh-Metrix, TAASSC counts structures ("dependents") instead of words: so, for example, a prepositional phrase (*next to the living room*) is five words but one dependent, meaning it is overweighted by the other tools. Nominal dependents include determiners (articles, possessives), adjectives, noun modifiers, restrictive relative clauses, and prepositional phrases (see Kyle, 2016b, p. 54-57). TAASSC's measure of dependents per nominal showed good correlations in Kyle's study with holistic writing scores for L2 writers (r = .332) and may be better

able to capture students' elaborations in their noun phrases than the Coh-Metrix or L2SCA measures.

Data Analysis

My strategy for data analysis reflects two key aspects of the research design: the balanced integration of quantitative and qualitative strands and the use of intact sections with different teachers. Since random assignment was only possible at the class and not the individual level, and since each Joint Construction event is unique, a nesting effect caused by the teacher and students in each section is possible, even with training and fidelity measures. Although a Hierarchical Linear Model (HLM) is the optimal analytical tool for a nested design, it would be impractical in this study because of the number of teachers required to achieve sufficient power. This is a typical limitation of mixed-methods research: a search of Education Full Text and ERIC revealed only three mixed-methods educational studies employing HLM analyses, and these were all very large-scale designs. Furthermore, one of the reasons for choosing HLM is to account for variation among teachers when participants are split among multiple classrooms. However, such variation is of actual interest in the present study and is analyzed qualitatively in order to interpret and discuss class-level effects.

Schoonenboom (2014) has described an alternative to HLM for mixed-methods research with intact classes, although it needs to be modified for a quasi-experimental rather than purely descriptive project. Essentially, Schoonenboom proposes three stages of analysis. First, the entire sample is analyzed quantitatively; in my case, this would ask whether there are pre-post differences between the treatment and control groups, ignoring any possible class effects. Then, differences among intact

groups are analyzed; that is, the scores within the two conditions are compared separately to see whether there are differences among class sections. Finally, the qualitative analyses of the Joint Construction events and student writing are integrated in order to interpret, explain, expand upon, or complicate the quantitative findings. Teacher interviews and student surveys are incorporated at this stage.

This strategy is attractive for its clarity and parsimony. It also holds open the results of the quantitative analyses until the qualitative analyses can be integrated, which in turn can only be understood in the light of the quantitative findings. That is, no intermediate stage of the analysis provides an adequate answer to the research questions (Schoonenboom, 2014). The steps in the statistical analysis are described below, followed by details of the qualitative analyses and integration of the strands.

Quantitative Analyses

Quantitative analyses were performed to test for differences between treatment and control groups at pretest; to compare students' posttest performance; and to detect any differences among class sections.

Pretest

In order to establish whether the treatment and control groups are equivalent, students were compared using *t*-tests on the basis of demographic data (age, gender, nationality, first language, level of education in the home language, number of years of English study, new or returning student status, and number of times in Level IV) and all quantitative measures of pretest writing (quality, length, complexity, and language proficiency). Standardized pretest language scores (such as placement scores) are not available since continuing students do not retake the ELI placement

test. A proxy for language proficiency is provided by the three-level rubric used to categorize students' pretests as below-level, on-level, or above-level.

Posttest Writing

Following the procedures suggested for mixed-method research with intact classes (Schoonenboom, 2014), ANCOVA tests were conducted on all the dependent variables for quality, length, and complexity using the same pretest measures as well as language proficiency as covariates. These tests show whether statistically significant differences exist between the treatment and control groups as a whole after the intervention, ignoring any possible nesting. Students' posttest writing was subsequently analyzed at the class level within each condition using ANCOVA on the dependent variable of holistic quality to determine whether a nesting effect occurred. ANCOVA is appropriate rather than a repeated-measures ANOVA since the prompts at pretest and posttest are sufficiently different to make comparison across time meaningless.

Power Analysis

Based on a simple model that does not take into account nesting of students within classes, an *a priori* power analysis conducted using G*Power (Faul, Erdfelder, Lang, & Buchner, 2010) indicated that a minimum of 128 participants (i.e., 64 per condition) would be needed to detect a medium effect size (Cohen's $f = .25$) using ANCOVA analyses for two groups, one covariate (numerator $df = 1$), with power set to .8 and a two-tailed alpha of .05. Since there is no prior experimental research on Joint Construction or on the TLC as a whole, a fairly conservative effect size has been used for the power analysis. With an actual sample of 119 students (60 control, 59

treatment) for whom complete quantitative data are available, the study is almost sufficiently large to detect medium-sized effects in the quantitative data with 80% probability if they truly exist in the population (see above for reasons why some of the 138 students across the two sessions were excluded).

Qualitative Analyses

Joint Construction Transcripts

The video recordings of seven Joint Construction episodes were transcribed and analyzed qualitatively. (One lesson was not captured due to a technical fault with the video camera.) Adapting previous research into the processes of CW (Chapter 2), the analysis presented in the following chapters focuses on four aspects of the interaction: the phases of Joint Construction (Dreyfus et al., 2008), teacher scaffolding during the composition of the text (Hammond & Gibbons, 2005), students' participation, and languaging (Swain, 2006).

The following method was used to analyze the transcripts. An a priori coding scheme was developed based on research reported in Chapter 2. As will be seen (Chapter 4), Dreyfus et al.'s (2008) phases of Bridging, Text Construction, and Review remained largely consistent in my data. However, it became evident that the categories of teacher scaffolding proposed by Hammond and Gibbons (2005) needed revision as new categories emerged from deep immersion in the data. The categories for students' participation emerged in a grounded fashion from the data in an attempt to capture the nature of the classroom dynamic, the extent of student contributions to the text, and the level of student-initiated languaging. LREs were coded for moves that indicate attention by the teacher and/or students to linguistic form (Swain & Lapkin,

1998). The apparent target of each LRE was also noted, with all issues relating to word choice and form labeled as lexical LREs except explicit requests for adjectives, a target of the unit, which were coded separately. This is a slight departure from Swain and Lapkin (1998), who coded morphology as "form-based" rather than "lexis-based" LREs. Following Swain and Lapkin, LREs spanning multiple turns were only coded once.

Once I was satisfied with the coding scheme, a second researcher reviewed and discussed the codes and examples from the transcripts in order to clarify the scheme. I then coded all seven transcripts. Reliability was established by asking another doctoral student familiar with Joint Construction but not with this project to apply my coding scheme for teacher and student utterances to a 20% sample, randomly selected, from two different teachers' lessons. She also coded an entire transcript for LREs since they occur somewhat sparsely. Rather than attempt to quantify the agreement, a process which is not settled in the qualitative literature (Armstrong, Gosling, Weinman, & Marteau, 1997; Davey, Gugiu, & Coryn, 2010), the second rater and I discussed the very few areas of differences that emerged, clarified the definition of one category (Extend), and agreed on the interpretation of a small number of ambiguous utterances. It also became necessary to distinguish between a lexical LRE and a discussion of content (what type of trees grow near the beach?) or style (e.g., rejecting vague, high-frequency adjectives like *interesting*): for an LRE, there needs to be a diversion from the composition of the text, however briefly, so that attention can be paid to the form, spelling, or accuracy of a word (e.g. recasting *house for childrens* as *family home*) or an indication that the word is new vocabulary for the class.

I then reviewed my coding of the other transcripts with these potential pitfalls in mind. The coded transcripts were imported into NVivo 11 for further analysis. The software automatically coded each appropriate transcript line for the phase (e.g., Text Negotiation), teacher scaffold (e.g., Extend) or student participation (e.g., Offer), and language-related episode, if present (e.g., relative clause).

Evidence of Transfer

In order to operationalize the degree to which students transferred language and writing skills practiced in the Joint Construction to their subsequent independent writing, the jointly written texts were first divided into ideational units. These units corresponded to text construction episodes in the CW activity. For instance, if a prepositional phrase (e.g., "on the second floor") was suggested and negotiated before the rest of the sentence was written, it was treated as an individual unit, but largely the units comprised of complete clauses or sentences. For example:

> (1) Yasir Luis, who is a successful architect, // (2) wants to sell his beautiful and luxurious home that he designed.// (3) The house which was built on a famous beach in Miami is not too far from downtown but is still quiet. // (4) Luis has to move because he found a new project in Newark, Delaware. // However, he thinks this fashionable and unique house (5) // will be perfect for family or as a vacation home. (6) // (HH)

The units were categorized by function, using the teacher's explanation of the text under construction where possible:

1. Owner's name and job
2. Design of the house
3. Benefits of the location
4. Reason for selling

5. Closing with positive attributes of the house
6. Target audience as focus of the article

In addition, specific grammatical structures that were introduced or negotiated were identified from the transcript analysis. Since relative clauses, vocabulary sophistication, and descriptive adjectives have been measured separately, they were excluded from this analysis, as were low salience elements and error corrections that would be virtually impossible to trace in students' writing (e.g., plurals and use of articles); it is not possible in this type of analysis to track whether students do *not* make an error in their writing that has been corrected in a previous class. From the relevant segment of the Joint Construction transcript in which the text above was written, the remaining traceable LREs were: (1) the passive voice in *was built*; (2) the pronoun modifier *his house*; and (3) starting a sentence with *however* rather than a coordinating conjunction.

A list of potentially transferable ideational and linguistic elements was produced for each class section and identified in the students' independent writing.[8] Grammatical accuracy was not a criterion for ideational elements since the attempt indicates some level of uptake, but errors in linguistic elements were not credited; for instance, "in the left hand" realizes the function of orienting the reader within the house but does not show transfer of the idiomatic phrase "on the left hand side."

Vocabulary transfer was analyzed using the Range function from the Compleat Lexical Tutor suite of linguistic tools (Cobb, 2015). The software compares the jointly written text to the posttests of students in that class and shows which word families are used in each text (an additional search on word types was conducted in order to add words for which LexTutor was unable to find a family, such as *downtown* and *sunset*).

The first 1,000 word families of English were excluded from the search, thus omitting function words (e.g., *a, the, which*) and highly common words (e.g., *big, beautiful*). Words provided on the floor plan for the independent writing task were also excluded (e.g., *deck, bathroom, bedroom*). The total number of transferable lexical elements was recorded as the remaining word families in the jointly written text. The LexTutor output was then filtered to show the words from the jointly written text used by students in their posttests. For example, the most frequently transferred words from Section HH's collaborative writing are: design (7), locate (6), convenient (6), relax (5), modern (5), smart (5), success (5), chat (4), famous (3). It is also possible to count how many lexical items from the jointly written text are in each student's posttest: for example, Student HH4 used six words that are the same as or related to those in the joint writing, while Student HH10 used 12.The version of the posttests with spelling corrected was used, which slightly inflates the transfer rate since incorrectly spelled words are counted as correct, and errors in word form are ignored because they are recognized as part of an identified word family (e.g., "it's very *convenience* for you," HH8).

In summary, the task of measuring transfer from the Joint Construction to Independent Construction stages is conducted here by quantitizing three qualitative analyses. Ideational and linguistic elements identified qualitatively in the collaboratively written texts are manually counted in the students' posttests, while vocabulary also found in the Joint Construction is automatically tallied. Correlations can thus be drawn between the ideational, linguistic, and lexical elements transferred and posttest writing scores as well as the patterns of teacher and student contributions to each section's Joint Construction.

Genre Analysis of Writing

Following the quantitative analysis, a stratified sample of posttest descriptions was selected for qualitative analysis using SFL tools to identify and evaluate their structure and effectiveness. This subset of writing included students of high, average, and below average proficiency with high, average, and low descriptive quality scores at posttest.

This type of close textual analysis reflects the belief that meaning is construed through multiple simultaneous semantic and rhetorical choices (Martin, 2009). As discussed in Chapter 2, an SFL analysis typically proceeds from the clause level, by examining the Participants (essentially, nouns), Processes (verbs), and Circumstances (prepositional phrases and other adverbials), as well as the use of cohesive devices such as grammatical metaphor. Texts can also be analyzed for their use of the textual function (the way the text unfolds through its information structure) and the interpersonal metafunction (for instance, the writer's choice to use *I* or *you*). Together, this permits the identification of the stages, or genre elements of the texts. The presence and appropriate sequencing of the stages as well as the range of linguistic choices made at each stage permit an evaluation to be made of the effectiveness of the text at instantiating a genre (de Oliveira & Iddings, 2014a).

Survey and Interviews

The survey was taken 131 times, 62 times in Session I and 68 times in Session II. Of those, eight students indicated they had been absent on one or more days of the study, at which point the survey ended for them. A further 13 responses were blank. The number of responses analyzed is indicated in Table 5. Note that some of the

survey respondents may have been excluded from actual data collection for other reasons described above.

Table 5 Survey Responses

	Session I (n = 50)	Session II (n = 59)
Control (n = 56)	28	28
Treatment (n = 53)	22	31

Note. *n* = 109

The closed-ended questions on the survey were analyzed using descriptive statistics (means and standard deviations), and the open-ended questions (40 students wrote answers) were read closely to reveal relevant themes in participants' attitudes and perceptions. These issues are not central to the proposed study and do not explicitly feature in the research questions or the analysis of results. These data as well as teacher interviews were collected in part to provide participant verification of my interpretations of the Joint Construction events, and partly for future research.

Data Integration

Once the individual strands of analysis are complete, they are "merged" (Creswell & Plano-Clark, 2011, p. 291) in order to more fully understand the Joint Construction activity. This step is central to mixed-methods design but is especially interesting here because of the opportunity to locate convergence not only between different types of data but also different epistemologies, methodologies, and theories of writing and language. Genre-based educational linguists believe that meaning resides in language choices that unfold through a text and that cannot be reduced to

calculations of complexity, accuracy, and fluency (Rose & Martin, 2012). Cognitively-oriented researchers treat those quantitative measures as indicative of development in writing (for literacy researchers, such as MacArthur, 2011) or second-language acquisition (Connor-Linton & Polio, 2014).

I deliberately do not evaluate or prioritize either approach to understanding the effects of the Joint Construction intervention. While the quantitative analyses of student writing may reveal statistical patterns in the use of subordination, embedding, and lexical range that are not always evident in small-scale case studies thanks to the statistical power of a moderately large sample size, the qualitative SFL analysis can better explain how the words, clauses, and connectors function in individual texts (Brisk & De Rosa, 2014). Together, the two strands both complement and expand on each other by not only finding but also interpreting the effectiveness of any true differences that emerge in students' writing (Greene, Caracelli, & Graham, 1989). Thus, the design potentially fulfils the core promise of mixed-methods research, which is to combine the strengths of qualitative and quantitative research while minimizing, although not eliminating, the weaknesses (Onwuegbuzie & Johnson, 2006).

The most important purpose for merging the data strands is to trace the qualitative and quantitized analyses of the Joint Construction sessions into the posttest writing in order to answer Research Question 3. The value of this activity can most thoroughly be assessed by the planned integration of multiple strands of data from the classroom interaction and student writing. This type of merged analysis is hinted at in Storch's (2005) descriptive study (which only examined collaboratively-written texts, not subsequent independent writing), but it has not yet been attempted with whole-

class Joint Construction nor conducted on a large scale with any level of random assignment.

Pilot Studies

Two pilot studies were conducted. The first (March 2015) used a set of materials for teaching a product review (Appendix Q), based on Bixby and Caplan's (2014) textbook (Caplan & Farling, 2016). The same teacher taught the treatment version of the unit to her two sections of Level IV with 7 and 3 students.[9] There was no control since the purpose of the pilot was to observe the Joint Construction sessions and evaluate the materials. The videos were transcribed and the students' pre- and posttest essays typed verbatim for analysis. Quality was not rated since a genre-specific rubric was not created for this task. Preliminary findings from the pilot are discussed below in terms of fluency and complexity (Table 6) and the impact of the Joint Construction.

Fluency, measured by number of words (excluding titles), increased from pre- to posttest, from an average of 153 to 211 words. All but one student wrote longer texts at posttest. There was a substantial range, from 57 to 212 words at pretest and 159 to 308 words at posttest.

The MLTD measure of vocabulary diversity also increased from pre- to posttest from an average score of 54.3 to 75.4. This appears to indicate an increase in range of lexical use, although as McCarthy and Jarvis (2010) warned, very short texts (under 100 words) return misleadingly high values since few words are repeated. For example, one student wrote only 57 words at pretest with an MLTD of 70.0. Nonetheless, all students' MLTD scores increased from pre- to posttest, suggesting this measure is worth retaining. The analysis of descriptive language (adjectives

descriptive functions) reveals dramatic increases, with students using on average twice the number of different adjective types in their posttest compared to pretest writing. Notably, two students who barely used these word forms at pretest (P2 used one and A3 used three) ended up using nine and 18 types, respectively with almost no repetition (type/token ratios remain very high).

Table 6 March, 2015, Pilot Study Descriptive Statistics

	Pretest		Posttest	
Measure	M	SD	M	SD
Fluency (words)	153.3	47.1	211.4	45.9
MLTD	54.28	14.1	75.40	25.7
C/T	1.54	.31	1.98	.62
DC/T	.52	.25	.90	.49
DC/C	.32	.10	.42	.12
Relative clauses attempted	1.8	2.3	3.9	2.6
Relative clauses correct	1.4	1.8	2.7	2.3
Adjectives types	7.1	4.5	15.5	8.0
Adjectives tokens	8.3	5.1	19.6	9.8
Adjectives TTR	.88	.13	.92	.18

Note. n = 10; MLTD = Measure of Textual Lexical Diversity; C/T = clauses per T-unit; DC/T; DC/T = dependent clauses per T-unit; DC/C = ratio of dependent clauses to all clauses; TTR = Type/Token Ratio.

Students' grammatical complexity increased between pre- and posttests on all three ratios calculated. Power is too low for statistical tests of significance, but all means increased substantially (by 73% for DC/T, 31% for DC/C, and 29% for C/T). On average, students at posttest were using about two clauses per T-unit, suggesting that most sentences contained at least one dependent clause. Some of the increase in

syntactic complexity can be attributed to an increase in relative clauses, as predicted. Overall, the average number of attempted relative clauses more than doubled from 1.8 to 3.6, and the number of correct clauses also increased from 1.6 to 2.6.

Qualitative analyses of the transcripts reveal, unsurprisingly, that the teacher did focus students' attention on relative clauses. Early in the Joint Construction in one class, she pointed out potential contexts for using the structure and co-constructed a sentence with several students:

1 T: What's important for you?

2 S: Applications

3 T: that it have applications

4 S: (has)

5 T: this is a good place to use an adjective clause to make the word applications more specific. Tell me what you said about applications.

6 S: applications that

7 T: applications that are

8 S: easy

9 S: and useful

10 T: to

11 S: to use

12 S: I think useful.

13 T: That are useful. There's your adjective clause. It needs to have a specific type of applications. So, we still need to know why the iPhone.

This is an example of the dynamic, contingent scaffolding that occurs during Joint Construction. In Line 1, the teacher elicits the next idea, which she recasts at 3 (using, probably unintentionally, the subjunctive, a structure that is far above the class level, as a student seems to realize in his attempted recast at Line 4). Next, she turns to a meta-commentary (5) and then elicits a specific detail. A student begins the clause but falters, so the teacher steps in to provide the next word (7), simultaneously eliciting adjectives. Two separate students are able to provide relevant adjectives (*easy* and *useful*), at which point the teacher extends the dialogue and is able to solicit a non-finite clause by only providing the particle, *to* (10). At Line 12, one of the students contributing to this exchange realizes that the sentence they have written contains redundancy (*useful to use*) and proposes a recast, which the teacher accepts at Line 13, concluding with a metacommentary on the purpose of the adjective (relative) clause. She then opens up the next stage of the text by soliciting another reason for buying an iPhone. Further analysis is needed, but it is clear from this short extract that it will be possible to code the transcripts for the types of scaffolding employed.

Shortly after the episode above, the teacher helps the students recognize that the most important point, which will serve as the opening of the review, is the design of the phone.

1 T: So we're going to say I chose the new iPhone 6 because I loved the new design.

2 S: First sentence?

3 T: Yes, remember we start out with the reasons why we bought something.

4 S: There is no phone that is as useful as the iPhone.

5 T (writes and comments): Nice adjective clause

6 S (continues): And useful at the same time.

7 S: and simple at the same time

8 T: and as simple at the same time. That's a nice transition to our description because then he can talk about all the things that the iPhone can do and how easy it is to use it.

Here again, the teacher and students negotiate both form and genre staging with varying degrees of student autonomy and teacher scaffolding. The teacher has already made the decision to start the review with a sentence that they have previously written together about the iPhone's design. When a student asks for confirmation, or perhaps clarification (2), she gives a metacommentary about the typical structure of the genre, linkinf back to the previous day's modeling. A student offers an unsolicited sentence, and the teacher notes the effective adjective clause with another metacommentary. The same student and a classmate add more details at Lines 6 and 7. The teacher accepts these without change and reverts to metacommentary to discuss the transition to the next stage of the genre.

A less expected topic of discussion during the text negotiation stage of the task was a comparison between the new and old iPhones.

1 S: It's bigger than the old version.

2 S: than the old one

3 S: and thinner

4 T: let's talk about one thing at a time. Why is it a good thing that it's bigger? Why do you like a bigger phone?

6 S: For me it's not an advantage because I like the smartphones that are the small that I can take in my pocket.

7 T: Ok, so that might also be something to hold on to for the problem, and sometimes a good thing can be a problem at the same time. So we're going to hold on to that. (*types underneath*) Bigger isn't

always better. So there's places here for everyone's ideas. Those of you who like the big phones. Why do you like a bigger phone?

8 S: I can watch more information

Of note here is the teacher's insistence on supporting descriptions with reasons, a point which she reiterates throughout the lesson, as prompted by the Deconstruction teaching materials. It is interesting here that the students suggest the idea of comparing the phone to its previous version. This was not a direction that the teacher could have predicted, showing the contingent nature of the task.

Importantly, several students then incorporated comparisons into their subsequent reviews. In fact, one student used this technique throughout her posttest, giving a new handheld video-game machine a favorable review in comparison to the older model on the grounds of improvements to its ease of use, weight, screen size, and memory. She also borrows a criticism of the iPhone's battery life.

> The new psp has some features. The new version has a smaller size than the old one. The new version is thinner than old one that you can keep it in your pocket. The new version has a bigger memery than the old one that you can store many games in it. I can use a memery or CD to play my games. The new version can use the internet easier than the old one that you can watch moves or surf the internet quicly. The new version has some problems. The new version has a bad battery, and sometimes it turn of by itself. The battery doesn't store the charging for a long time and also doesn't charge quicly. (A1 posttest, extract, verbatim)

This student is clearly trying to display lessons learned from the unit and emphasized in the Joint Construction: providing a general statement before specific details ("the new psp has some features"); supporting each opinion with evidence ("that you can keep it in your pocket"); the use of relative clauses (they are all incorrect here, but this student did not even attempt one in the pretest); and the comparison. This all points to

the possibility of ideational and linguistic transfer and learning for a student who appears to start with relatively weak writing skills.

Even in this limited pilot, it is possible to see changes in students' writing pre- and post-instruction without making a causal claim. At pretest, students were asked to describe their favorite possession. Student A3 wrote 108 words, about one standard deviation below the mean, with more repetition than average (MLTD of 42.9) and no relative clauses, but a slightly higher DC/C ratio than the mean (.35).

My favorite possession.

> 1My favorite possession is my daughter. 2Her name is [XXX]. 3She is two years old. 4I believe she is the better child in my eyes. 5She is gift from my gad [God]. 6I love her very much because she is a peice from my heart. 7Also, she love me very much, so I can't continue my life without her. 8My husband and I spend a lot of time for her to be happy. 9I don't have more reason to explain why I love her so much because just she is my daughter.
>
> 10In my opinion, all of people must love their childen to [so that] their children love them. (A3 pretest)

This piece is not very effective because there is very little description of the writer's daughter.[10] No physical or emotional characteristics of the child can be found by analyzing the nouns and pronouns, which relate more to the writer than the object of the description. There are few descriptive adjectives (*favorite, better, happy*) and little variety in the verbs (mostly *be* and *love*). At the textual level, it is difficult to detect any thematic progression. The Themes of the sentences alternate between the writer and her daughter (*my favorite possession / her name / she / I / she / I / also, she / my husband and I / I*) before shifting in Sentence 10 to a generalization (*all of people*), which may be an inappropriate overextension of the student's previous exposure to formulaic essay structure.

Despite the above-average incidence of dependent clauses, a close analysis reveals little effective clause combination, contributing to deficiencies in the overall cohesion of the text. Sentence 6 contains a subordinate clause that successfully supports the main clause, but the coordination in Sentence 7 does not match the causal meaning of *so*. Sentence 9 contains a well-formed complex structure (an embedded noun clause, *why I love her so much*) followed by another *because* clause that would be clearer if the adverb *just* were moved. Finally, in Sentence 10, the writer has attempted a non-finite construction which is not syntactically possible here but has the right semantic function (purpose). However, this cause and effect relationship is not captured in Sentence 7, which instead uses the additive connector *also*.

After a week's instruction in relative clauses and the product review genre, the same student wrote the following:

A great Hair Dryer

> 1It is important for any woman to use a hair dryer to become in a stylish appearance. 2Personally, I bought Braun hair dryer which has high qualities to make my hair so healthy. 3Its design helps me to use, such as its size is suitable for size my hand, so I can hold it easily. 4In addition, that product is lightweight for more transport.
>
> 5For good aspects, Braun hair dryer has a certain area which I can control a proper temperature. 6Also, it has airflow and drying speed in a short time. 7For example, if I take a shower, I can dry my hair quickly.
>
> 8Even though Braun hair dryer has a good features, it doesn't have a battery, so I can not use it without electricity. 9For example, if I want to travel, I must take it, but I don't find electricity area that helps me to use my dryer. 10Also, I can not put it in my suitcase because it is bigger than old dryer which I own, although it was lightweight. 11In this situation, I must take special bag for it."

> [12]Overall, I recommend to use Braun hair dryer because it has the best qualities. [13]Hair dryer is necessary in my life. (A3 posttest, emphasis added)

Quantitatively, this text is an improvement over the student's pretest in many ways: it is almost twice as long (207 words without the title), with less repetition (MLTD of 61.0) and more complexity (DC/C of .41). The writer has also attempted four relative clauses (underlined), which were entirely absent from the pretest, and they are all basically correct. There is also considerably more descriptive language, with 18 different adjectives used 20 times. The text meets all the expectations of the genre: a title, an explanation why the writer is an expert in the product category, a description of the product, good and bad features, and a recommendation. As the teacher stressed in the Joint Construction, opinions are supported with details and examples. This can be seen in the thematic analysis: although the writer alternates between the hair dryer and herself as the Theme of the sentences, the choice is effective as she describes aspects of the product and then gives her experience as supporting evidence. The opening and closing sentences carry some vestiges of the traditional essay format but are not inappropriate and are much better tied to the rest of the text than the concluding paragraph in her pretest.

It is instructive to compare this text with the jointly constructed product review written the day before. Students did not have access to this text while they were writing their in-class posttests, but they were sent a copy of it immediately after the previous class. There are striking similarities in structure, but these could not have occurred through simple copying, and it is improbable that students would have chosen to memorize the jointly constructed text overnight. For example, the second and third paragraphs of the Joint Construction begin: "The new iPhone has many good features" and "Although the iPhone is a great product, it also has some problems."

Note, though, that the student successfully used a synonym for *although* in her writing (*even though*). The last paragraph also begins with "overall," but is otherwise different. The use of an *if* clause to support an advantage is here, too, but with the dependent clause after the main clause ("…Find My iPhone, which allows me to track the location of my phone if I lose it"). Some of the content overlaps; both texts discuss the size and weight of the battery, and make a comparison, although this is a little different since the student compares her hair dryer to the one she previously owned, not to an earlier version of the same model. As previously noted, the use of comparison was a focus of the class discussion, and again, the relationship between the texts goes far beyond rote repetition: in the collaborative writing, *light weight* is used as a noun phrase ("Finally, the light weight might be easy to carry, but it is also easy to drop") whereas in the student's independent writing, it becomes an adjective ("although it was lightweight").

The purpose of the second pilot in May, 2015, was to test the new instructional unit on writing a featured home article. The product review task was rejected for several reasons: students without experience of the selected item struggled to participate; different products in each class would increase the variability among class sections; and the posttests were difficult to compare because they discussed very different products, from a handheld video game to a human-sized punching bag. Furthermore, the review genre requires two rhetorical modes: description and evaluation. In the experimental materials, the genre is more clearly descriptive, and all students work with the same houses at the Deconstruction, Joint Construction (or additional modeling), and Independent Writing stages.

Summary of the Methodology

One of the contributions of this dissertation to L2 writing research is expected to be the methodology itself. Balanced mixed-methods research, in which the qualitative and quantitative strands are equally weighted within an experimental design, is unusual but valuable in both literacy and L2 writing studies (Tardy, 2006). Furthermore, quantitative research in quasi-experimental designs is hardly if ever found in SFL literature, and to date never in the analysis of Joint Construction. The design connects the process of collaborative writing to its outcomes and allows for the possibility of detecting qualitative benefits for Joint Construction even in the absence of quantitative differences between the treatment and control groups. Furthermore, quantitative data enables the researcher to identify patterns in the qualitative data and selectively sample student writing for textual analysis.

ENDNOTES

[1] Originally, I had planned to offer a workshop on Joint Construction to all faculty in the latter half of Session I. I postponed this until Spring, 2016, so that control teachers would not be trained in the intervention task until the end of the extended study.

[2] One teacher, who was randomly assigned to the control condition, declined to provide demographic information.

[3] The textbook for Session I is a custom publication designed by the level teachers, which includes chapters from three ESL textbooks: *Making Connections 2* (McEntire & Williams, 2013), *Writers at Work* (Zemach & Stafford-Yilmaz, 2008), and *Grammar and Beyond 3* (Blass, Iannuzzi, Savage, & Reppen, 2012). In order to accommodating repeating students, different books are used in Session II: *Q Skills for Success Reading/Writing 4* (Daise & Norloff, 2015) and *Understanding and Using English Grammar* (Azar & Hagen, 2009).

[4] The relevant student learning outcome in the syllabus is: "Write descriptions, summaries, and comparison/contrast papers." The curriculum adds: "Possible purposes of writing include: essays, reports, email, personal letters, letter to the editor, newspaper/magazine articles, business correspondence, and creative writing."

[5] A small number of these were completed at home and not under test conditions, so their results should be treated with caution. Due to an error in timing by the teacher, Section H's pretests (Session I) were all written at home.

[6] Students who reported being absent on one or more days of the study were not given the remaining questions to answer. The response rate may be somewhat inflated as students who did not give consent for the whole study may nonetheless have taken the anonymous online survey.

[7] McCarthy and Jarvis (2010, p. 389) took texts of 2,000 words in length and calculated the same lexical diversity measures on the full texts and on segments of the same texts. Differences between the mean of the segmental tests and the result for the full text indicate that text length is a confound for most measures. Only MLTD did not

correlate significantly with text length (r = -.016, p = .530). TTR, by contrast, varied considerably as a function of the length of the text segment (r = .811, p < .001).

[8] Although no video recording exists for the Joint Construction in Section G, the jointly written is available along with a detailed recall of the classroom interaction recorded with the teacher immediately after the lesson.

[9] These class sizes are unusually small for the ELI. The section with three students was an afternoon class, which is typically less popular.

[10] American readers may find the writer's ease in describing her daughter as a possession somewhat disconcerting. This points to another problem with the pilot materials: students may produce texts that diverge from the intentions of the task due to either miscomprehension or cultural differences. It is not clear which explanation best fits this case.

Chapter 4

QUANTITATIVE RESULTS AND DISCUSSION

Since this mixed-method study follows a balanced design, the quantitative and qualitative results are presented and discussed separately but equally in Chapters 4 (quantitative) and 5 (qualitative). The final chapter of this dissertation merges the results in a general discussion that attempts to answer the research questions (an outline proposed by Creswell & Plano-Clark, 2011, p. 258).

The structure of this chapter is as follows: in order to establish the validity of both the quantitative and qualitative strands of the research, the treatment and control groups will be compared at pretest since random assignment was possible only at the class and not individual level. The fidelity of implementation is also considered (other aspects of reliability were discussed in Chapter 3). Then, the results and statistical analyses of the quantitative data outlined in Chapter 3 will be presented, followed by a discussion of these results. Finally, the survey results will be shown and briefly discussed.

Initial Group Comparisons

For practical reasons, a quasi-experimental design was adopted in which participants were randomly assigned to treatment and control conditions at the class not individual level. Heterogeneity within the population was always expected since levels in an Intensive English Program may in reality encompass a wide range of abilities across the different language domains. Consequently, analyses were

performed to test for significant differences in the groups' demographic composition, pretest writing performance, and pretest language proficiency.

Overall, 138 students who gave consent were enrolled in the sixteen classes whose teachers gave consent to participate in the research. The attrition rate was low: ten students did not complete every stage (seven in the treatment condition and three in the control condition), and nine students were excluded in Session II having already participated in Session I (six in the treatment condition and three in the control condition). Therefore, the study population for the purposes of quantitative analysis comprised 119 students with 60 in the control condition (eight class sections) and 59 in the treatment condition (eight class sections).

First, in order to examine student demographics, *t* tests were conducted between the two conditions on participants' age and length of time learning English. Chi-square tests were performed to test for differences in country of origin, first language, gender, level of education, new or continuing student status, and repeater status (i.e., whether or not the student was repeating Level IV, having previously been retained). The results are presented in Table 7.

There were no significant differences for age ($t[116] = .067$, $p = .51$), length of English study ($t[112] = .00016$, $p = .99$), or gender ($\chi^2 = .239$, $df = 2$, $p = .625$). Education and first language had to be manipulated for statistical testing since the frequency counts violated the assumptions of the chi-square test (more than 20% of cells had frequencies less than 5, and some cells contained zero participants, such as treatment students who had not completed high school). Therefore, levels of these variables were collapsed for analysis. For education, below high-school and high school education as well as students who had completed undergraduate and graduate

degrees were combined. There was no significant difference between conditions (χ^2 = .509, *df* = 2, *p* = .775). For first language, all languages other than Arabic and Chinese (which accounted for 87% of the sample) were collapsed into an "other" category. There was no significant difference between the conditions (χ^2 = 2.657, *df* = 2, *p* = .265).

Second, tests were conducted to examine whether the students' language and writing skills were comparable across the two conditions at pretest. As explained in Chapter 3, standardized measures of proficiency were not available in the research context. Therefore, initial ability was inferred using students' pretest writing as a proxy. *T* tests were conducted for length and quality at pretest. There was no difference in the average length (*t*[116] =.048, *p* = .96) or quality (*t*[117] = .026, *p* = .979) of the pretests between condition (Table 8). In addition, chi-square tests were performed between the conditions on the holistic language proficiency rating at pretest. Very similar numbers of students were classified as writing below, on, or above level (χ^2 = .093, *df* = 2, *p* = .954). Finally, an ANOVA was conducted among sections on the dependent variable of pretest quality since intact groups were used for the study; no significant difference was detected (*F*[1, 15] = 1.243, *p* = .254). Therefore, despite the lack of true random assignment, the treatment and control conditions and the sections themselves turned out to be statistically comparable.

Table 7 Student Demographics by Condition

	Treatment (*n* = 59)	Control (*n* = 60)
Age	21.2	21.8
Years of English	6.7	6.7
Highest level of English	< high school (0)	< high school (2)
	High school (37)	High school (34)
	Some college (7)	Some college (10)
	Undergraduate (10)	Undergraduate (13)
	Graduate (4)	Graduate (1)
Continuing or new	New student (26)	New student (30)
	Continuing (33)	Continuing student (30)
First language	Chinese (41)	Chinese (33)
	Arabic (12)	Arabic (18)
	Japanese (3)	Japanese (5)
	Spanish (2)	Korean (3)
	Turkish (1)	Spanish (1)

Note: *n* = 119

Table 8 Pretest Comparisons

	Treatment (*n* = 59)	Control (*n* = 60)
Length (words)	274	275
Language proficiency	Low (15)	Low (14)
	On level (35)	On level (36)
	Above level (9)	Above level (10)
Quality	Mean = 2.76	Mean = 2.77
	SD = . 73	*SD* = .92

Note: *n* = 119

Fidelity

Teachers in all classes were given itemized checklists (Appendix E) and asked to check each stage of each lesson as a fidelity measure. Unfortunately, not all the checklists were returned to me (those for Sections AA, E, GG, H, and HH are missing). No teacher reported meaningful deviation from the plans: in some cases, teachers ran out of time and moved an activity from the end of one to day to the next, or they added a grammar worksheet to supplement the textbook. None of these involved collaborative or additional descriptive writing. In addition, control teachers were asked to video the two modeling lessons (the Deconstruction and the additional modeling lesson conducted in lieu of the intervention), and treatment teachers recorded the Deconstruction lesson and the Joint Construction. I reviewed all the videos to confirm the teachers' self-reported fidelity. Due to technical problems, some videos are missing: the Deconstruction lessons for Sections AA and EE, most of the Deconstruction lesson for DD, the first half of the Deconstruction lesson for Section F, the last part of the Deconstruction lesson for FF, and the Joint Construction for Section G. My review of the remaining videos confirmed that the teachers followed the lesson plans and instructional materials closely during the recorded classes.

There were minor differences in the ways teachers introduced the featured house genre at the start of the Deconstruction (e.g., by showing a Sunday newspaper, by discussing the teacher's own house search, or by calling it a "descriptive essay"), but these were almost always brief and are unlikely to have had a meaningful impact. One teacher in a treatment section (CC) unexpectedly added a discussion comparing the models to the students' pretest writing. One teacher of a control class (FF) spent a long time on a pre-reading discussion about selling houses (not the one in my materials), including an overview of an actual featured house article from the local

newspaper. Therefore, these students were briefly exposed to an additional model, but it was presented through a short lecture rather than interactively as in the study unit. She also diverged somewhat from the plans (e.g., completing some activities in pairs instead of individually) but without adding any writing. However, for the most part, teachers appear to have completed all the activities in the unit in the prescribed format (individual work, pair work, or whole class review).

In addition, the Joint Construction lessons were closely analyzed and found to follow the intended lesson plans well. Table 9 shows the use of time by teachers in the treatment condition during the Joint Construction lesson. As anticipated, the writing took about an hour on average. Note that afternoon classes (Sections E, EE, G, and GG) are longer than morning classes, but teachers were asked to spend the last part of their afternoon lesson on other materials, which they mostly did. The only noted divergence from the lesson plans was that some teachers spent the last part of class after Joint Construction (or the control condition's equivalent) finishing the study of relative clauses in the grammar books while others moved on to verb tenses, as recommended. However, this was largely to catch up on exercises missed earlier in the week, so overall students received the same instruction by the time of the posttest to within a tolerable degree.

Overall, absolute fidelity cannot be claimed since not all lessons were taped, and some videos are missing. However, the high degree of concurrence between the checklists and the videos when available suggests that overall fidelity was strong during the intervention and acceptable for the few days between the start of the session and the start of the featured house unit.

Table 9 Time Use During Joint Construction

Section	Planning	Collaborative writing	Wrap up
C	32	67	1
CC	24	60	3
E	37	57	2
EE	18	60	2
GG	14	76	1
H	21	84	1
HH	35	68	10
Average (range)	26 (18-32)	68 (57-84)	3 (1-10)

Notes: Times in minutes. No video recording exists for Section G.

Quantitative Results

The results for the quantitative measures of quality, length, and complexity of the posttests are presented below. Since the pretest and posttest were written to different types of prompts in somewhat different genres and scored by different raters on different rubrics, repeated-measures ANOVA would be inappropriate. Instead, the preferred tests are ANCOVA when the covariates are significantly correlated with the dependent variables, or *t* tests if not. Levene's test statistic was checked for the parametric tests described below and was nonsignificant in all cases, meaning that the assumption of homogeneity of variance was not violated at any time.

Quality

Before considering the descriptive quality of the writing, it is important to know whether students actually produced the target genre of a featured house article. Four levels were used for the genre code, which is treated as a nominal variable (Appendix H and Table 10). In order conduct a chi-square analysis, it was necessary to

combine the "other" category—two papers that appeared to be narratives that incidentally described the house—with the description-only category so that fewer than 20% of the expected frequencies would fall below 5 (Field, 2009). This is theoretically sound since all such papers represent a degree of genre confusion (Miller, Mitchell, & Pessoa, 2014). A 3 x 2 chi-square analysis found significant differences between the conditions ($\chi^2 = 42.67$, $df = 2$, $p < .001$). Students in the treatment condition wrote significantly more texts that met the basic purpose, staging, and function of the house description genre, while students in control classes wrote significantly more texts that were pure descriptions with no attempt to sell a house. The odds of treatment students realizing the target or (related) self-sale genre were 4.4 times greater than the odds for control students (Field, 2009, p. 700).

Table 10 Genre Completion

Condition	Target	Self-Sale	Description	Other
Control ($n = 60$)	33	7	20	0
Treatment ($n = 59$)	48	5	4	2

Note: Target = target genre; Self-sale = featured house article selling the writer's house; Description = pure description; Other = another genre.

The descriptive quality ratings (Table 11), which did not explicitly include consideration of genre, were not significantly different between conditions when controlling for pretest quality, with a negligible effect size ($F[1, 116] = 36.556$, $p = .661$, $d = .08$). There was a significant relationship between pretest and posttest quality, as expected ($F[1, 116] = 17.71$, $p < .001$).

Table 11 Descriptive Quality Scores at Posttest

Condition	Unadjusted Mean	*SD*	Adjusted Mean
Control	2.950	.82	2.949
Treatment	3.004	.77	3.005

Note: Scale of 1-5. $n = 119$. Adjusted mean uses quality score at pretest as the covariate.

It is, however, possible that the treatment interacted with students' initial language proficiency because the scaffolding provided during Joint Construction (discussed in Chapter 5) might not have been within the Zone of Proximal Development for students above or below the usual proficiency of Level IV students. The mean posttest quality scores in each condition for the three levels of language proficiency (below level, on level, and above level) presented in Table 12 indicate that language proficiency corresponded with the quality of pretests and posttests (not surprisingly, since the underlying constructs overlap). However, the adjusted posttest descriptive quality scores do not suggest an interaction. This was confirmed by conducting an ANCOVA in which language proficiency was entered as two dummy variables, using below level as the reference group in order to test for the effect of the treatment on the larger on-level group. The covariates were significantly related to the posttest quality ratings: pretest quality ($F[1, 112] = 12.07$, $p = .001$), the above-level dummy variable ($F[1, 112] = 8.39$, $p = .005$) and the on-level dummy variable ($F[1, 112] = 8.67$, $p = .004$). However, there was no significant interaction of condition with on-level students, and the effect size was small ($F[1, 112] = .481$, $p = .305$, $d = .24$). That is, while the descriptive statistics suggest the promise of an interaction, the effect

may not be meaningful and would take a far greater sample to create a significant difference.

Table 12 Descriptive Statistics Comparing Quality by Language Proficiency

Language	Control Mean	*SD*	Treatment Mean	*SD*
Below	*n* = 14		*n* = 15	
Pretest	1.80	.55	2.23	.64
Posttest	2.34	.75	2.33	.64
On level	*n* = 36		*n* = 36	
Pretest	2.90	.77	2.87	.63
Posttest	3.03	.76	3.20	.66
Adjusted	3.28		3.53	
Above level	*n* = 10		*n* = 9	
Pretest	3.58	.70	3.03	.79
Posttest	3.50	.62	3.36	.78
Adjusted	3.40		3.57	

The picture is somewhat different when genre completion is taken into account (Table 13). In order to understand the data, "self-sale" can be considered as approaching the target genre since it fulfils a similar function (describing a house for sale) but positions the writer non-canonically as the owner. Similarly, description and "other" can be combined since they represent egregious deviations from the expected genre. For below-level students, there is no effect for condition: 64% of control and 73% of treatment students wrote in the target genre (a non-significant difference, χ^2 = 1.87). However, treatment students who were at or above the language proficiency of the level were significantly more likely than control students to write in or near the target genre: 97% of on-level treatment students versus 67% of control students (χ^2 =

30.5, $p < .0001$) and 89% of above-level treatment students versus 70% in the control condition ($\chi^2 = 11.1$, $p = .0009$). Notably, no on- or above-level student in the treatment condition wrote a pure description, compared to 15 control students.

Table 13 Genre Completion Compared by Students' Language Proficiency

Language	Target	Self-Sale	Description	Other
Below				
Control (*n* = 14)	8 (57%)	1 (7%)	5 (36%)	0
Treatment (*n* = 15)	11 (73%)	0	4 (27%)	0
On-level				
Control (*n* = 36)	19 (53%)	5 (14%)	12 (33%)	0
Treatment (*n* = 35)	29 (83%)	5 (14%)	0	1 (3%)
Above				
Control (*n* = 10)	6 (60%)	1 (10%)	3 (30%)	0
Treatment (*n* = 9)	8 (89%)	0	0	1 (11%)

Note: Target = target genre; Self-sale = featured house article selling the writer's house; Description = pure description; Other = another genre.

As discussed in Chapter 3, in order to account for a possible class-level nesting effect, ANCOVA tests were conducted among the treatment and control sections separately on posttest descriptive quality with pretest quality as the covariate. The results were nonsignificant for the control sections ($F[7, 51] = 1.16$, $p = .344$) but significant for the treatment sections ($F[7, 50] = 2.96$, $p = .011$). However, none of the posthoc comparisons was statistically significant, even when using the Sidak adjustment, which is less conservative than Bonferroni (Field, 2009, p. 402). The adjusted means for the treatment classes are shown in Table 14. There is a range of over one point on the rubric between the lowest (GG) and highest (E) class averages, a difference which came closest to significance ($p = .18$). However, section GG was unusually small (three students), which may have distorted the results. Further analyses of variance among treatment sections was conducted only for measures of complexity that reached or approached significance between the two conditions.

Table 14 Descriptive Quality Scores for Treatment Classes

Section	Mean	Adjusted Mean	*SD*
C (*n* = 6)	3.33	3.35	.52
CC (*n* = 9)	2.47	2.57	.82
E (*n* = 7)	3.54	3.46	.77
EE (*n* = 9)	3.36	3.36	.73
G (*n* = 7)	2.54	2.29	.77
GG (*n* = 3)	2.17	2.15	.14
H (*n* = 9)	3.28	3.23	.81
HH (*n* = 9)	3.00	2.95	.77

Note. Adjusted mean uses quality score at pretest as the covariate.

Length

The length of students' writing at pretest and posttest correlated significantly ($r = .40$, $p < .001$). Therefore, an ANCOVA was conducted to control for length at pretest (Table 15). Posttests in the treatment condition were on average about ten words longer than those in the control condition after controlling for pretest length, a nonsignificant difference with a small-to-medium effect size ($F[1, 116] = 2.375$, $p = .126$, $d = .27$). As expected, length at posttest correlated highly and significantly with posttest quality ($r = .70$, $p < .001$) as did length of pretest with pretest quality, a little less strongly ($r = .59$, $p < .001$).

Table 15 Posttest Length

Condition	Unadjusted Mean	SD	Adjusted Mean
Control	328.1	78.4	327.9
Treatment	347.9	83.0	348.0

Note. Length measured in number of words. *n* = 119. Adjusted mean uses length at pretest at the covariate.

Complexity: Vocabulary

Two measures of lexical complexity were calculated. The broader measure, mean-length of textual density (MLTD), correlated significantly at posttest with MLTD at pretest ($r = .39$, $p < .001$), so an ANCOVA was conducted to control for initial lexical diversity. As can be seen in Table 16, treatment texts had slightly greater diversity, with the difference approaching significance ($F[1, 116] = 3.116$, $p = .08$, $d = .33$). The effect size was small-to-medium and observed power (.417) was about half that anticipated in the a priori power analysis, which had assumed a medium effect size. Therefore, the study was underpowered to detect a true difference at the $p < .05$ level of confidence. Notably, MLTD did not correlate significantly with length at posttest, validating the use of this measure over TTR, as discussed in Chapter 3 ($r = .18$, $p = .06$). A subsequent ANCOVA among the treatment sections approached but did not reach statistical significance ($F[1, 7] = 1.87$, $p = .094$).

Table 16 Lexical Diversity at Posttest

Condition	Mean MLTD	*SD*	Adjusted Mean MLTD
Control	58.38	12.9	58.47
Treatment	62.41	12.8	62.32

Note. MLTD = Mean Length of Textual Diversity. $n = 119$. Adjusted mean uses MLTD at pretest as the covariate.

The narrower lexical focus was the number of descriptive adjectives. *T* tests were conducted since this measure was not counted at pretest (Table 17). Treatment students used significantly more unique adjective types ($t[117] = 2.22$, $p = .028$, $d = .41$) but not tokens, that is the total number of descriptive adjectives ($t[117] = 1.46$, p

= .148, *d* = .27). The TTR calculated with descriptive adjectives only was also not significantly different (*t*[117] = 1.46, *p* = .148, *d* = .27). There was a medium effect size for adjective types and a small-to-medium effect for the other measures, which may mean the study was again underpowered. Adjective TTR did not correlate with length of posttest (*r* = -.04, *p* = .66), suggesting that the measure is not sensitive to text length and has construct validity. However, both adjective types and tokens correlated significantly with text length (*r*s = .44 and .52, *p* < .001). Therefore, although students in both conditions used about the same number of descriptive adjectives at posttest, treatment students used more *different* adjectives, which is partly explained by the slightly longer posttests written in the treatment condition.

Table 17 Adjective Use at Posttest

	Adjective tokens		Adjective types		Adjective TTR	
Condition	M	SD	M	SD	M	SD
Control	21.7	7.0	15.8*	5.3	.73	.12
Treatment	23.7	7.8	18.2*	6.7	.77	.13

*Note*s. *n* = 119. TTR = Type/Token Ratio. * *p* < .05

There was some evidence of variation among sections. An ANOVA revealed significant variation among the treatment sections for adjective tokens and types (*F*[1, 7] = 3.194, *p* < .01; *F*[1, 7] = 2.844, *p* < .05, respectively), but not for adjective TTR (*F*[1, 7] = .66, *p* = .705).

Complexity: Grammar

There were two types of measure for grammatical complexity: omnibus measures of clausal complexity and fine-grained measures of relative clauses and

nominal elaboration. The omnibus measures were calculated as ratios of clauses to T-units, dependent clauses to all clauses, and dependent clauses to T-units. There were no significant differences in overall clausal complexity between the groups when adjusting for the respective covariates; effect sizes were very small (Table 18): C/T (F[1, 116] = 8.53, p = .862, d = .002), DC/C (F[1, 116] = 1.83, p = .179, d = .22); DC/T (F[1, 116] = .947, p = .332, d = .14).

Table 18 Clausal Complexity at Posttest

	C/T			DC/C			DC/T		
Condition	M	SD	Adjusted	M	SD	Adjusted	M	SD	Adjusted
Control	1.68	.29	1.69	.35	.09	.33	.616	.25	.621
Treatment	1.69	.29	1.68	.33	.09	.31	.583	.24	.578

Notes. C/T = Clauses per T-unit; DC/C = Dependent clauses per clause; DC/T = Dependent clauses per T unit. Adjusted means use the same measure at pretest as covariates.

T tests were conducted to compare the use of relative clauses between the treatment and control groups (the pretest measures did not correlate with the posttests), revealing that the differences were not significant for the number of relative clauses (t[117] = 1.78, p = .08, d = .32) and the number of accurate relative clauses (t[117] = 1.06, p = .29, d = .19). Somewhat surprisingly, the difference in number of relative clauses approached significance with a small-to-medium effect size in favor of the control group (Table 19). Nonetheless, both measures increased dramatically for both conditions from pretest (fewer than one clause per student) to posttest (more than six correct clauses, on average).

Table 19 Relative Clause Use

	Number of relative clauses		Correct relative clauses	
Condition	*M*	*SD*	*M*	*SD*
Control				
Pre	.83	1.2	.75	1.2
Post	7.9	4.6	6.7	4.1
Treatment				
Pre	1.1	1.5	1.1	1.4
Post	6.4	3.9	6.0	3.8

Notes. n = 119. Relative clause accuracy was measured by a rubric (Appendix P).

In terms of nominal elaboration, four quantitative measures were drawn from the students' writing: the number of complex (i.e., modified) noun phrases per clause (CN/C) and T-unit (CN/T), the average number of words modifying noun phrases (NMod), and the average number of dependents (NDep, that is syntactical units, such as determiners, adjectives, quantifiers) modifying noun phrases. The results are presented in Table 20. ANCOVA tests were conducted, using the respective measures at pretest as the covariates, and no significant differences were found: CN/C (F[1, 116] = .336, p = .563, d = .01); CN/T (F[1, 116] = .208, p = .649, d = .01); NMod (F[1, 116] = 1.19, p = .278, d = .15); NDep (F[1, 116] = 2.58, p = .11, d = .24). The effect sizes were negligible, except for the measure of noun dependents, which although still small, suggested a promise for this new indicator of nominal complexity.

Table 20 Nominal Complexity

Condition	CN/C *M*	*SD*	Adj	CN/T *M*	*SD*	Adj	NMod *M*	*SD*	Adj	NDep *M*	*SD*	Adj
Control												
Pre	.74	.23		1.14	.46		.68	.15		1.16	.20	
Post	.95	.20	.94	1.60	.44	1.58	.93	.17	.93	1.08	.17	1.08
Treatment												
Pre	.68	.20		1.09	.41		.66	.17		1.13	.20	
Post	.95	.22	.96	1.60	.45	1.61	.96	.17	.96	1.12	.16	1.13

Notes. Adj = Adjusted using the same measure at pretest as covariate; CN/C = Compound noun phrases per clause; CN/T = Compound noun phrases per T Unit; NMod = Average number of noun modifiers per noun phrase; DNep = Average number of dependents per noun phrase.

Jointly Constructed Texts

All the quantitative analyses (except quality and genre completeness) were calculated for the collaboratively written texts to permit comparisons when the quantitative and qualitative data strands are merged (Chapter 5). Descriptive statistics are presented in Table 21. As can be seen, the texts are not identical, yet there is some uniformity across the products of the Joint Construction. The statistics for the additional model article about the beach house studied in the control condition are also provided for comparison.

Table 21 Jointly Written Texts: Descriptive Statistics

Section	Words	MLTD	CT	DCC	DCT	CNT	CNC	Rel Cl	Adj token	Adj type	Adj TTR	NMod	NDep[a]
CC	339	58.1	1.90	0.53	1.00	2.05	1.08	12	24	19	0.79	1.06	1.00
C	241	82.1	1.93	0.48	0.93	1.87	0.97	11	24	21	0.88	1.05	1.24
EE	378	64.0	1.46	0.31	0.46	2.00	1.37	6	42	36	0.86	1.45	1.52
E	343	78.4	1.70	0.41	0.70	2.25	1.32	11	35	33	0.94	1.24	1.43
GG	653	60.4	1.97	0.41	0.82	2.05	1.04	20	41	27	0.66	1.09	1.31
G	494	75.3	1.88	0.45	0.84	1.66	0.88	14	29	24	0.83	1.10	1.29
HH	291	76.4	1.50	0.33	0.50	2.11	1.41	6	28	25	0.89	1.30	1.34
H	289	68.1	1.65	0.32	0.53	1.71	1.04	5	19	19	1.00	1.28	1.33
Avg[b]	378.5	70.3	1.75	0.41	0.72	1.96	1.14	10.6	30.3	25.5	0.90	1.20	1.31
SD	125.5	8.36	0.19	0.07	0.19	0.19	0.19	4.7	7.8	5.9	0.10	0.13	0.14
Model[c]	362	93.0	1.95	0.49	0.95	2.53	1.30	9	32	28	0.88	1.29	1.50

Notes. [a] MLTD = Mean Length of Textual Diversity; CT = Clauses per T-Unit; DCC = Dependent clauses as a proportion of all clauses; DCT = Dependent clauses per T-unit; CNT = Complex noun phrases per T-Unit; CNC = Complex noun phrases per clause; Rel Cl = number of relative clauses; Adj token = number of descriptive adjectives; Adj type = number of different descriptive adjectives; Adj TTR = type/token ratio for descriptive adjectives; NMod = average number of modifiers per head noun; NDep = average number of dependents per noun phrases. [b] Average and standard deviations for the jointly written texts (n = 8). [c] Model beach house description studied by control classes in lieu of Joint Construction.

Summary of Quantitative Results

The quantitative measures indicate that Joint Construction resulted in significantly greater numbers of students realizing the target genre than in the modeling-only condition. Furthermore, students in the treatment condition used more different descriptive adjectives in their posttests than those in the control classes, but not more adjectives overall. No other differences reached statistical significance, but effect sizes were consistently small, indicating that the study was underpowered. The groups were not significantly different in demographics, linguistic proficiency, or writing ability at pretest, and both treatment and control conditions were implemented with adequate fidelity.

Student Surveys

Although students' perceptions of the lessons in the treatment and control conditions are not central to the research questions of this study, it is nonetheless important to incorporate their opinions in any discussion of the curriculum as a whole and the Joint Construction task in particular. Student satisfaction with the unit is presented in Table 22. Treatment students' responses to questions specifically about the Joint Construction are shown in Table 23. As can be seen, overall satisfaction was high for both groups and slightly higher on most questions among the treatment students. Interestingly, the responses follow some of the patterns identified in students' posttests: more treatment students strongly agreed with statements about learning the content and organization of the article, and more of them actually instantiated the target genre. Meanwhile, more control students declared themselves very comfortable with using relative clauses in their texts, and there were indeed

slightly (but not significantly) more relative clauses in their writing. Treatment students were also somewhat more confident about their ability to transfer their skills to other descriptive texts, which could be usefully tested in future empirical research.

Students in the treatment condition responded positively to Joint Construction. Aside from a very few ambivalent students, they enjoyed the activity and found it useful; 80% of them expressed a desire to repeat the task. The responses to the open-ended questions were not especially revealing, and are thus not analyzed here in detail. The most thoughtful reflection on the Joint Construction activity, however, did capture some of the goals of the task:

> [We] tried to write a whole article together and order our mind to be specific, most importantly, pushed us to use more unusual adjective words and clauses.

When asked what they learned from the whole-class writing activity, students wrote very brief comments on the structure of the article, adjective clauses, sentence variety, use of adjectives, and occasionally reader response:

> I learned that we have to write about the owners first, then about outside the house, then about inside the house, and finally about bedrooms and exciting sentence that make the reader excited to buy the house.

The final question asked whether there was anything else they wanted to tell me about the unit. One student recognized the potential for transfer ("maybe I can use in the future"), one praised the unit for being engaging and promoting interaction, and one suggested "let us go into the real house and visit the house."

Overall, both versions of the instructional unit were highly rated by the students, who recognized the value for developing their writing and grammar skills. Students commented on the most salient aspects of the instruction (textual structure

and the target grammar points) and were overwhelmingly receptive to the Joint Construction activity.

Table 22 Student Survey Results: Satisfaction with the Instructional Unit

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I know what to write in a featured house article.					
Control	53.6	42.8	3.6	0	0
Treatment	61.5	36.5	1.9	0	0
I know how to organize a featured house article					
Control	41.8	43.6	12.7	1.8	0
Treatment	59.6	36.5	3.8	0	0
I know how to use adjective (relative) clauses in a featured house article.					
Control	61.9	30.9	7.3	0	0
Treatment	50	42.3	5.8	0	1.9
I know how to write different kinds of descriptions.					
Control	33.9	48.2	16.1	1.8	0
Treatment	43.1	49.0	5.9	0	2.0
My writing has improved since the start of the session.					
Control	36.4	47.3	12.7	3.6	0
Treatment	44.2	44.2	9.6	1.9	0
I am happy with the article that I wrote in class on Thursday.					
Control	42.9	41.1	12.5	1.8	1.8
Treatment	48.1	36.5	11.5	3.8	0
I enjoyed the featured house unit this week.					
Control	51.8	42.9	3.6	1.8	0
Treatment	44.2	46.2	7.7	1.9	0
I found the featured house unit useful.					
Control	41.1	48.2	8.9	1.8	0
Treatment	42.3	48.1	7.7	1.9	0

Note. n = 109. Responses are expressed in percentages. One student did not complete this section of the survey.

Table 23 Student Survey Results: Satisfaction with Joint Construction

	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
I enjoyed the whole-class writing activity	60%	32%	8%	0	0
I found the whole-class writing activity useful for my own writing.	50%	34%	16%	0	0
I would like to do more whole-class writing this session.	54%	26%	18%	2%	0

Note. $n = 50$. Three treatment students did not complete this section of the survey.

Discussion

The quantitative results need to be interpreted in the educational context of this study. Both conditions comprised interventions in the regular course of study since they asked teachers to employ a new pedagogy, the Teaching/Learning Cycle, and teach descriptive writing through a specific genre, the featured house article, rather than as a mode in itself; many of the teachers would usually have assigned some form of descriptive "essay" at this stage in the session. Although students in the treatment condition did not write higher quality descriptions, most students in both groups were able to use the descriptive mode at least adequately, as defined by the rubric where a score of 3 indicated a somewhat effective description. Furthermore, students in both conditions responded favorably to the instructional materials and felt they had benefited from the unit. These results are all positive evidence in support of using this genre-based pedagogy in this context, although they do not suggest a unique contribution of Joint Construction.

A clear and important benefit of Joint Construction lies in the extent to which students instantiated the target genre. Students were significantly more likely to produce a text that fit the featured home article genre they had been taught after participating in Joint Construction compared to those who instead studied an extra model. Furthermore, a full third of students in the control condition wrote pure descriptions: texts that provided just a bald description of the house. These students apparently misconstrued the task as a decontextualized pedagogical exercise, much like the descriptive essay assignment which this unit sought to replace, despite the fact that both conditions reviewed and reinforced the genre stages. Crucially, it was among on- and above-level students that the difference between the conditions was statistically signification. For example, one third of the control students rated at the expected language proficiency entirely avoided the genre, compared to only such student in the treatment condition. This impact would not be evident on the descriptive quality variable since raters were instructed to focus only on the trait of description regardless of the apparent purpose or genre of the text. Therefore, at least for this particular genre and student population, the Joint Construction resulted in closer adherence to the target genre and fewer instances of genre confusion than modeling alone, except for students whose language proficiency may have been a barrier for acquitting the genre. This is more than an effect on organization alone: genre knowledge includes not only staging but also the context, register, and purpose of texts. It remains to be seen whether this finding extends to other genres, including higher stakes academic genres such as those practiced in the Joint Construction stage of other research (Dreyfus & Macnaught, 2013; Dreyfus et al., 2008).

Two components of linguistic complexity also relate to the quality of description, descriptive adjectives and relative clauses, both of which are targets of instruction at this level and are functional in descriptive genres. Overall, there were greater effects for the treatment on vocabulary than grammar. The lexical diversity of students' posttests as measured by MLTD was greater in the treatment condition than the control condition, with the difference approaching but not quite reaching statistical significance. The effect size was small-to-medium, suggesting the difference may become statistically significant with a larger sample. There is additional evidence that writers did indeed use a greater range of vocabulary after participating in Joint Construction: treatment students used a significantly greater number of different descriptive adjectives (types). It is likely that the greater breadth of adjectives contributed to the increase in overall lexical diversity, exactly as would be expected from an intervention designed to teach descriptive writing. Further evidence can be seen in the quantitative analysis of the jointly written texts, which contained large numbers of adjectives (over 25 different types on average) with very little repetition (an average type/token ratio for this word class of .9). These statistics are comparable to the model studied by the control students. Therefore, although students in both conditions were exposed to lexically diverse texts and apparently grasped the importance of using descriptive adjectives, the Joint Construction had a small but measurably greater impact on students' subsequent independent writing than modeling alone. The qualitative analysis in the next chapter will shed further light on this result.

Students in both conditions used relative clauses extensively despite rarely using them in their descriptive writing at pretest. However, there was no difference between the conditions in terms of the number or accuracy of relative clauses. This

suggests that students in both conditions by and large took this opportunity to use a grammatical structure that was new to most of them. It is important to note that the materials for the control classes deliberately included a discussion and analysis of relative clauses in the additional modeling lesson which was conducted in lieu of Joint Construction. This may have inadvertently meant that in some cases, more attention was paid to relative clauses in the control than the treatment classes. Overall, though, it would be impossible to distinguish the effect of either the control or treatment conditions from other components of the course: relative clauses were simultaneously being taught from a grammar book, and students had other access to language practice (a listening/speaking class, regular tutoring, and incidental exposure to English). However, it appears that the Teaching/Learning Cycle of textual deconstruction, modeling with or without Joint Construction, and then independent writing encouraged the meaningful use of new grammar. Further research is needed to explore the role of the TLC compared with other pedagogies on the uptake of new grammar in this population.

Overall, treatment students' descriptive writing was superior in selected aspects of quality (genre completion and range of descriptive adjectives) compared to the control condition, with a near significant benefit in lexical diversity. The measurable differences can be attributed to the Joint Construction activity since students in the two conditions were comparable at pretest despite not being randomly assigned to conditions at the individual level, which rules out most internal validity threats. There were no statistically or educationally significant differences between the groups in terms of length or clausal complexity. This is unsurprising given the short duration of the intervention; however, some of the effect sizes (e.g., the number of

nominal dependents) warrant further research with larger samples and perhaps multiple iterations of the TLC to investigate whether Joint Construction can have a significant and meaningful impact on grammatical complexity (Chapter 6).

Significant differences emerged among class sections in the treatment condition at posttest. The ANCOVA result is difficult to interpret with confidence since the numbers of students in the classes were uneven, which may help explain the lack of significance in the pairwise post hoc tests. Nonetheless, the mean quality scores suggest that there was variance among the sections, even after controlling statistically for pretest quality, which was not the case in the control condition. That is, the differences in outcomes after Joint Construction do not appear to be solely attributable to differences in the initial strength of the students in the class.[1] Instead, it may be possible to trace students' outcomes in each section to differences in the joint writing task itself. Each Joint Construction is a unique and irreplicable event. Thus, it should not be surprising if the collaborative task sometimes had more or less effect on students. This is a consequence of the use of intact classes and the violation of the assumption of independence in the data: the students in each class shared a common experience in the unique Joint Construction.

Therefore, this dissertation now turns to the qualitative data in order to first analyze the dynamics and contents of the collaborative writing activity and then draw tentative connections between the process of Joint Construction, captured qualitatively, and its products, analyzed quantitatively and qualitatively (see Schoonenboom, 2014). Subsequently, conclusions from both the quantitative and qualitative strands will be drawn in answer to the three research questions.

ENDNOTE

[1] One unexpected outcome of this study has been to demonstrate the heterogeneity of students at the start of Level IV. While some variance is to be expected—language proficiency is a complex construct and any individual student may have strengths and weaknesses across the different domains—the range of writing ability suggested by the pretests was quite shocking.

Chapter 5

QUALITATIVE RESULTS AND DISCUSSIONS

In Chapter 4, I analyzed and discussed the quantitative results from this mixed-methods study. Compared to students who engaged in an expanded Deconstruction stage, those who experienced Joint Construction went on to write papers that were significantly more likely to realize the target genre of a featured home article and use more different descriptive adjectives. A linguistic proficiency threshold was found for genre completion and suggested for descriptive quality: students at or above the expected level of the course benefited most from the treatment. There were no significant differences for length, descriptive quality, and complexity. Finally, the results showed significant variance among the classes in the treatment condition in descriptive quality and adjective use.

In this chapter, I analyze the qualitative data and begin to merge the quantitative results with the qualitative strand of the study. First, the phases of the Joint Constructions are considered to determine whether the structure proposed by Dreyfus et al. (2008) applies to these classes. Then, the teachers' scaffolding techniques and students' contributions during the collaborative writing portions of the Joint Construction are quantitized to depict the range of classroom dynamics that occurred. From this analysis, I propose a four-quadrant model of scaffolding in Joint Construction. Next, I present a taxonomy of Joint Construction events using prototype theory. Finally, these qualitative data and the quantitative data from Chapter 4 are merged with the quantitized evidence of contextual, grammatical, and lexical transfer

to trace the specific impact of Joint Construction on students' subsequent independent writing in classes that exhibited different patterns of scaffolding.

Phases of Joint Construction

Prior research into Joint Construction has found three broad phases[1] that occur both sequentially and recursively during the activity (Dreyfus et al., 2008): Bridging (in which the teacher guides the students through building schema, brainstorming ideas, and recapping the stages of genre), Text Negotiation (the actual writing of the text), and Review (involving re-reading, reflecting on, and editing the jointly written text). These phases are comparable to the cognitive stages of planning, translating, and reviewing stages in the process writing model (Flower & Hayes, 1981), except that they are necessarily externalized and socially constructed in collaborative writing.

The Joint Construction transcripts in this study reaffirm Drefyus et al.'s (2008) phases. All classes started with Bridging episodes, proceeded to Text Negotiation, and ended with a period of Review. As expected from previous research, the phases were also iterative, with periods of Bridging and Review interspersed within the Text Negotiation phase. However, the distinction in Dreyfus et al.'s taxonomy between the two sub-phases of Text Negotiation—namely, Create and Reflect—was dropped since the discussion moved so quickly and fluidly between writing, discussing, re-reading, and revising sentences that it was impossible to identify these phases independently. For example, in the following excerpt, the class is negotiating the last sentence of their article ("This brilliant house is ready to welcome a new owner!"):

1 T: So let's get a last sentence and that will be it.

2 S: The house is ready for a new owner.

3 S: Brilliant. So, you can put an adjective before house.

4 T: This brilliant house. Good enough. Anything else?

5 S: We should replace not a period but a [draws an exclamation mark in the air]

6 T: exclamation mark

7 S: yeah!

8 S: This house is ready to welcome a new owner.

9 T: You guys like that better? Ready for new owner, or ready to welcome a new owner? If someone has already been an owner, maybe it's better, I don't know. [types: "ready welcome a new owner"] Done.

10 S: *to* welcome

11 T: Done. (C304-C315)

Here, one student suggests a sentence (2), a classmate revises it by adding an adjective (3), another student wants to change the punctuation (5), yet another student proposes a different grammatical structure (8), the teacher reads both versions aloud (9), and appears to choose one himself, whereupon a student immediately catches his typing error (10). This pattern was typical: most sentences were constructed iteratively, with text creation and review blending together throughout the Text Negotiation phase.

Since it was clearly neither practical nor desirable to code every single utterance as Text: Create or Text: Review, as long as the text was moving forwards, a simple Text Negotiation phase was coded. However, when teachers re-read entire segments from the collaboratively written text, as they frequently did, then Review: Reflect was coded. Similarly, when they or the students moved back in the text beyond the sentence under consideration to revise or edit previously constructed text, then Review: Edit was appropriate. The final coding scheme is presented in Table 24.

Table 24 Phases of Joint Construction (adapted from Dreyfus et al., 2008)

Stage	Explanation	Example
Bridge: Recap Genre	Draw students' attention to the stages or elements of the genre, including references to the models	We're going to write an essay about the house. We're going to do it in four paragraphs.
Bridge: Build Field	Discuss the picture or floor plan of the house, rooms, or contents, individually, in groups, or as a class	Take two minutes. At our tables, think about how to continue. Then we'll hear your ideas.
Text Negotiation	Negotiate, write, and revise words, phrases, and sentences	How should we start this essay? This writing? This home description. What would be a good first sentence?
Review: Reflect	Re-read text that has already been finished, reflect on the genre or writing strategies (e.g., a paragraph or the whole text)	Don't worry that your sentence is not correct, that your sentence has crazy ideas, does not matter, all we want to make sure is that your sentence is on paper. Don't be afraid to just throw your ideas out.
Review: Edit	Make changes to previously written sections of text	What would you change or what would you add?

All the transcripts contained multiple episodes of each major phase (Bridge, Text Negotiation, Review), indicating that the collaborative writing mirrored the recursive writing process of expert writers (Flower & Hayes, 1981; Rijlaarsdam & van den Bergh, 2006). Teachers rarely called attention to this process, a strategy which might perhaps be usefully built into Joint Construction, but by organically choosing to re-read and edit text throughout the activity and not just after completing the draft, they offered a "cognitive apprenticeship" (Daiute & Dalton, 1993) of effective writing. In all but two classes, there were two or three episodes of revising the text in addition to a final read-through and edit. Teachers also frequently paused the text negotiation to discuss the house and possible features to describe. Such phases (Bridge: Build Field) occurred between three and 14 times after the initial brainstorming. All teachers recapped the genre structure at the start of the class, and some returned to the expected outline once or twice more while writing.

The variations in the phases may be due to pressures of time: in some classes, the initial enthusiasm to carefully craft each word and sentence gave way to the reality of finishing the text before the end of the period. In addition, large numbers of Bridge: Build Field phases could also indicate a greater focus on developing the content of the description than on the language of the text. For example, in Section GG, this phase occurred twice as often as in any other class, which is consistent with the particular dynamic of this Joint Construction, as will be seen below.

Dynamics of Joint Construction

Although they followed very similar phases, from watching the videos and reading the transcripts, it became clear that the Joint Constructions unfolded in qualitatively different ways. This line of analysis is important because different

patterns of interaction might be linked to students' outcomes: significant variance was found among the treatment sections on the measure of students' writing quality at posttest (Chapter 4). If the patterns of scaffolding and the dynamics of interaction in Joint Construction can be specified and compared, it may be possible to discern which teaching strategies are more effective during this activity.

The term *dynamics* is used here and in Research Question 2 by analogy with Storch's (2002) study, which identified four different dynamics, or categories, of pair collaborative writing. Furthermore, an analysis of dynamics emphasizes the contingent nature of the scaffolding provided throughout the Joint Construction activity (Gibbons, 2015): the goal is not to produce a list of techniques, but rather analyze the complex, shifting, and recursive ways in which scaffolding is used to guide students through interaction in the share experience of producing a novel text (Martin, 1999).

One way to operationalize the dynamics of Joint Construction is to analyze the types of scaffolding that teachers provide and the extent to which such scaffolding opens spaces for students to co-construct the text. It was initially hypothesized that Joint Construction would fall into Storch (2002)'s expert/novice quadrant, almost by definition, since the teacher would likely exploit opportunities from the interaction to negotiate and stretch students' genre and language awareness, contingently adapting the scaffold within the students' perceived ZPDs. There is evidence of this dynamic micro-scaffolding (Gibbons, 2015) throughout all the Joint Construction lessons, and teachers and students alike reported enjoying the "live" nature of the interaction.

In order to better understand the particular nature of scaffolding in these Joint Constructions, the teachers' moves and the students' responses were categorized, coded, and then quantitized. Language-related episodes (LREs) were also analyzed

and tallied. Taken together, these three aspects of the interaction reveal the variety of approaches that teachers and students can take to collaborative writing even within the expert/novice zone.

Teacher Scaffolding

The a priori categories of teacher scaffolding that were identified from the literature in Chapter 2 (Hammond & Gibbons, 2005), although helpful, needed to be modified since they were developed from observations of a broader range of activities in K-12 settings (Table 25). Supply and Extend moves were anticipated before the study from other research into and descriptions of Joint Construction (Dreyfus et al., 2008; Rose & Martin, 2012) as well as my own pilot (Caplan & Farling, 2016). Teachers have been frequently observed to contribute to the text in order to move it forwards (Supply) and probe students for greater specificity and/or complexity (Extend). Three new categories were also added in vivo: Reject (in which the teacher rejects a student's offer), Open (in which the teacher initiates an episode of text construction by asking broadly for a new idea, sentence, or stage in the genre), and Strategy (explicit discussion of a writing strategy or the writing process).

After reviewing Cue and Extend turns with the independent coder, I clarified that Extend is any move intended to expand on the phrase or sentence under construction, including asking students to provide their own ideas using a specific grammatical structure (usually an adjective or a relative clause), while a Cue is either a nomination of a particular student or an attempt to elicit a particular word or phrase known to the teacher, including repeating an error in order to elicit a recast (Lyster, 1998). Recasts were further coded using Lyster's terminology as explicit (accompanied by a metalinguistic explanation of the error or edit) or implicit (a

"declarative recast," in which the teacher reformulates the student's utterance without comment or question; see Lyster, 1998, p. 59). The complete list of codes with examples is presented in Table 25.

Table 25 Teacher Scaffolding During Joint Construction

Type of Scaffolding	Explanation	Example
Metacommentary (Meta)	Explicit discussion of the genre or grammar pattern/rule; also code an LRE if appropriate	"Then you can through?" Through's not a verb (LRE: word form)
Link to Prior Knowledge (Link)	Reference to previous models, genre stages, writing experiences, or knowledge of the field	Remember at the very end of our descriptions yesterday, what did we have? The very last sentence.
Supply Text (Supply)	Teacher supplies the next word, phrase, or sentence without student input	So, we come in from the entry doors, what do we see? *[types]* From the entry doors
Appropriate (Approp)	Teacher takes one or more student ideas or individual words (not formed into a sentence) and rewrites in a phrase, clause, or sentence	S: can I something for advertisement, like the house comes with usually garage or something but with a relaxing lifestyle. T: let's see, how can we work that into our sentence? To enjoy a relaxing lifestyle. Is that closer?
Recast-	Teacher takes a student's (or students') utterance and reforms it without explanation; also code an LRE	S: Through opposite side. T: On the opposite side of the house? (LRE: Preposition)
Recast+	Recast with metacommentary or explanation or attention drawn to form; also code an LRE	S: shopping central T: not central, you can say center or district or mall. (LRE: lexis)

Table 25 continued

Cued Elicitation (Cue)	Either directed at a specific student (including nominating) or conducted to elicit a specific response); may code an LRE if recasting a grammar error	T: Into what rooms? S: Kitchen. S: Living and dining area.
Extend	Teacher probes one or more students for additional details, more specific vocabulary, or greater linguistic complexity; may also code an LRE if the teacher asks for a specific part of speech	Let's use a different verb instead of enter. You can what? (LRE: lexis) How is this closet different from all the other closets? (no LRE)
Reject Reject+Cue Reject+Extend	Teacher rejects a student's contribution; typically followed immediately by a cue or extend move	S: It's small spa. T: If it's small do we want to talk about that? (Reject) T: oh come on he doesn't want a reasonable price! Let me help you with, will … (Reject+Cue)
Open	Open question	What would be a good first sentence?
Strategy	Explicit discussion of a writing strategy	T: let's read it. That's what I do when I write. I read it.

Note. Based on Hammond and Gibbons (2005).

Differences among teachers in their patterns of scaffolding can be observed by quantitizing the qualitative coding (Table 26). These results indicate the extent to which the text was supplied by the students and negotiated with the teacher, the degree of attention to language (discussed further under Language-Related Episodes, below), and the use of writing strategies or previously deconstructed model texts in the Joint Construction activity. Note that since some turns contained two or three distinct moves (e.g., Appropriate and Extend), they are coded twice, so the number of codes (n = 1316) exceeds the number of coded turns (n = 1091).

Table 26 Scaffolding Techniques by Section

Section	extend	cue	recast-	approp	supply	reject	meta	open	recast+	link	strategy	Total
C	24 (25%)	17 (18%)	9 (9%)	3 (3%)	7 (7%)	4 (4%)	10 (10%)	13 (14%)	3 (3%)	4 (4%)	2 (2%)	96
CC	19 (12%)	22 (13%)	18 (11%)	23 (14%)	25 (15%)	13 (8%)	15 (9%)	18 (11%)	1 (1%)	6 (4%)	3 (2%)	163
E	56 (29%)	25 (13%)	25 (13%)	23 (12%)	16 (8%)	17 (9%)	6 (3%)	13 (7%)	8 (4%)	4 (2%)	1 (1%)	194
EE	41 (27%)	16 (11%)	19 (13%)	23 (15%)	28 (18%)	10 (7%)	5 (3%)	10 (7%)	0	0	0	152
GG	53 (22%)	32 (13%)	29 (12%)	33 (14%)	32 (13%)	15 (6%)	20 (8%)	19 (8%)	3 (1%)	5 (2%)	0	241
H	72 (26%)	47 (17%)	29 (11%)	12 (4%)	10 (4%)	33 (12%)	34 (12%)	13 (5%)	18 (7%)	6 (2%)	0	274
HH	39 (20%)	32 (16%)	20 (10%)	25 (13%)	17 (9%)	20 (10%)	16 (8%)	14 (7%)	9 (5%)	4 (2%)	0	196
Total	304 (23%)	191 (15%)	149 (11%)	142 (11%)	135 (10%)	112 (9%)	106 (8%)	100 (8%)	42 (2%)	29 (2%)	6 (0%)	1316

Student Participation

As explained in Chapter 3, student participation codes were generated from the data since there was no suitable extant scheme. Previous research into Joint Construction considered how teachers and students position themselves as Knowers or Askers, primary or secondary (Dreyfus et al., 2008). The focus of the present study was, rather, to capture the dynamics of the classroom (the degree to which students were producing text more or less spontaneously) and students' attention to language and genre. Therefore, an original coding scheme was developed to categorize whether students were volunteering content and ideas, responding to specific elicitation cues, initiating language-related episodes (LREs), demonstrating uptake of new language, engaging in metadiscourse, or rejecting a teacher's or peer's suggestion (Table 27).

As with the teacher scaffolds, the student data can be quantitized to compare the ways in which students typically participated in the Joint Construction across the different class sections (Table 28). Only four utterances were coded for two consecutive moves. It should be noted here that some of the voices present in the transcripts and thus captured in these data are excluded from the quantitative analysis of students' writing for reasons outlined in Chapter 3.

Table 27 Student Participation in Scaffolding

Student Move	Explanation	Example
Offer	Student offers a suggestion, from a word to a whole clause that was subject to little or no constraint by the teacher's previous move; or a self-initiated contribution; or any contribution following a previous student move	T: What else do we need to know? We're coming up to the outside of the house. We come up the stairs. (Open) S: just 20 steps away from the sun deck (Offer)
Respond	Student replies to a cued elicitation from the teacher; the response is highly constrained	T: What word gives a reason? (Cue) S: Because. (Respond)
Initiate	Student either initiates an LRE with the teacher or another student, usually with an explicit question about language use	S: what is this mean, glass partition? (LRE: Lexical) S: You need a comma (LRE: Relative Clause)
Uptake	Student repeats a teacher's recast correctly	S: let T: let? lets S: lets the sunshine comes in
Reject	Student rejects a teacher or student's suggestion	S: no it's too long. If we put an adjective clause here, it's too long. It's too long sentence I think.
Metacommentary	Student provides a metalinguistic explanation or refers explicitly to the structure of the text or genre	S: Actually we need a sentence to connect the parking place and enjoying the sunshine.
Link	Student spontaneously refers to a model	S: I can find similar sentence from the article Model 1.

Table 28 Student Participation Across Sections

Section	Offer	Respond	Initiate LRE	Reject	Meta	Uptake	Link	Total
C	70 (62%)	13 (12%)	15 (13%)	6 (5%)	8 (7%)	0	1 (1%)	113
CC	139 (77%)	17 (9%)	6 (3%)	8 (4%)	7 (4%)	4 (2%)	0	181
E	125 (83%)	22 (15%)	3 (2%)	0	0	1 (1%)	0	151
EE	116 (83%)	16 (12%)	1 (1%)	3 (2%)	0	3 (2%)	0	139
GG	107 (69%)	32 (21%)	13 (8%)	1 (1%)	1 (1%)	0	0	154
H	172 (70%)	62 (25%)	8 (3%)	3 (1%)	0	0	0	245
HH	159 (82%)	26 (13%)	4 (2%)	3 (2%)	0	1 (1%)	0	193
Total	888 (76%)	188 (16%)	50 (4%)	24 (2%)	16 (1%)	9 (1%)	1 (0%)	1176

Note. Codes are explained in Table 27.

Language-Related Episodes (LREs)

LREs occurred with some Metacommentary, Extend, Cue, and all Recast moves by the teacher, including implicit recasts, as well as students' Initiate and certain Metacommentary turns (other Metacommentaries focused on the genre, purpose, or organization of the text). As predicted by previous research, the largest category of LREs (123, or 31%) was lexical and initiated by the teacher (see Swain & Lapkin, 2002). Among discussions of vocabulary and word form, there was considerable attention to adjectives, the lexical target of the unit (36 LREs in six out of seven[2] transcripts, or 9%). Relative clauses, the grammatical target, were also widely discussed (51 LREs, or 13%, across all sections). However, many other syntactic issues emerged, either explicitly—that is, with metalinguistic explanation or some overt attention to the target form—or implicitly as an unremarked recast (Table 29). For example:

S: And his responsibility changed

T: And his responsibilities have changed. (GG70-71; Recast-; LRE: verb tense)

S: Make them look bigger

T: Which makes both rooms feel larger. Now we have two adjective clauses, one is necessary and one is extra information. (GG311-312; Recast+; LRE: relative clause)

T: However shows something's changed. We don't start with but. But's a connecting word. (GG81; Meta; LRE: connector)

S: What is it? it's like rocks on the counter top (Initiate; LRE: lexis)

T: Granite (GG246-247)

The total number of LREs was 401, with a mean average of 57 per Joint Construction or a median of 59 (Table 30). Since the Joint Construction episodes varied in length, Table 30 also indicates the LREs normalized per 100 coded turns in the transcript as a rough comparison of the density of focus on form across the sections.

Table 29 Language-Related Episodes

LRE	Explanation	Overall incidence
Lexis	Lexical LRE, including metalinguistic discussion of word meaning/choice, recasting of word choice, and correction to word form (*circular* vs. *circle*); also spelling	123 (32%)
Relative Clause	Use and structure of relative clauses, including choice of relative pronoun (*which, that, who*), preposition (*in which*), and the punctuation of restrictive vs. nonrestrictive clauses (*the theater, which is enormous, …*)	51 (13%)
Clause	Any clause structure focus not coded elsewhere, including verb form (*sitting* vs. *sit*), use of modal verbs (*can lead* vs. *lead*), and missing subjects or verbs	43 (11%)
Article	Use of *a, an, the* with nouns	36 (9%)
Adjective	Explicit attention to or request for an adjective	36 (9%)
Preposition	Choice of preposition or missing preposition	33 (9%)
Connector	Conjunction (*and, because*) or conjunctive adverb (*however*)	17 (4%)
Verb tense	Tense and aspect (e.g., present simple, present perfect), including future expressed with *will*	14 (4%)
Sentence	Sentence division: fragments, run-ons, breaking a long sentence into two shorter ones	13 (3%)
Pronoun	Choice to use or not use a pronoun (*the house* vs. *it*) including pronominal determiners/possessive adjectives (*their, his*)	11 (3%)
S-V	Subject-verb agreement (*he lives*)	8 (2%)
Determiner	Determiner other than an article or possessive (typically *this, these*)	2 (1%)

Note. n = 387. LRE = Language-Related Episode

Table 30 Language-Related Episodes in Joint Constructions by Section

Section	LREs	LREs per 100 turns
C	43	20.6
CC	41	11.9
E	73	21.2
EE	40	13.7
GG	61	15.4
H	84	16.2
HH	59	15.2
Total	401	Mean average = 16.1 Median average = 15.4

Note. LRE = Language-Related Episode

Summary: Dynamics of Joint Construction

The overall distribution of the types of teacher scaffolding and student participation presented above demonstrates the extent to which all the texts were genuinely co-constructed and yet constantly guided by the teacher, who shaped the article around students' ideas, words, and phrases. Students used most of their turns offering text in response to moves by the teacher that gave them the floor, particularly opening and extending moves. Teachers encouraged students to develop their sentences with additional detail, often by eliciting adjectives or relative clauses and always keeping to the planned structure of the target genre. Attention was diverted from meaning to form somewhat frequently, approximately once in every seven turns and almost 60 times in the average class. About a third of these language-related episodes focused on word choice, which is consistent with other research into collaborative writing tasks (Swain & Lapkin, 2002; Wigglesworth & Storch, 2009). Nonetheless, attention was also paid to a wide range of grammar, stretching students' linguistic resources, practicing the target structure for the unit, and correcting level-

appropriate errors. These results confirm the potential of Joint Construction to promote language and writing development since the activity consistently operates in Storch's (2002) expert/novice orientation, which has been to shown to be beneficial in other types of collaborative writing but somewhat elusive among pairs of students (see Chapter 2).

Four Quadrants of Scaffolding

Although each teacher used a similar range of scaffolding techniques, different interactional patterns nonetheless existed, which can be seen by comparing the prominence of difference categories of scaffolding and student contributions. As with Storch's (2002) landmark study, two dimensions can be discerned: in this case, an axis of teacher control to student control, and one of explicit versus implicit attention to language and genre, or in other words, attention to form versus attention to content and meaning (Figure 4). However, unlike Storch's dyads, the classes cannot be classified according to the quadrant in which they primarily fell since they all moved around the entire dialogical space. Instead, the teacher and student moves can be grouped according to the balance between moves in the four quadrants.

The two axes can be conceptualized thus: the horizontal axis separates moves in which the students are able to direct the content of the text from those in which the teacher is directing or even producing the text. That is, on the left side of the graph, the students are engaged as co-authors of the collaborative text, while on the right, they are cast more as observers of the teacher's writing process. The vertical axis suggests two poles of orientation in a given move. Although all writing necessarily implicates linguistic form, many turns are primarily meaning-focused; that is, their purpose is to drive the text forwards and describe the house. On the other hand, as

Long and Robinson (1998) theorized, attention during the interaction periodically shifts from the communicative purpose of the activity (writing a featured house article) to the form of the text, be it the word choice, grammar, or genre structure. In this way, attention to form shifts from being *implicitly* embedded in text production to an *explicit* topic of discussion.

The moves are plotted along the axes of control and attention to form by considering their definitions and examples from the transcripts (Figure 4). An additional distinction is made here between Extend moves which are accompanied by LREs (Extend+) and those which are not (Extend-). On examining the data, it became clear that an Extend move with an LRE evinces explicit attention to form (e.g., "Now here you could put an adjective clause. How would you describe the family?" [E; Extend+; LRE: Relative Clause] or "Be more specific than *happy*" [GG; Extend+; LRE: Lexical]), while one without an LRE focuses on adding content with no particular attention to form (e.g., "Let's add a little more detail. How many years have they lived together in this house?" [E; Extend-]). Implicit solicitations for particular grammatical structures (e.g., "Which has…?" [H; Extend-]) are not coded with LREs because they fall into the category of student control without explicit focus on form.

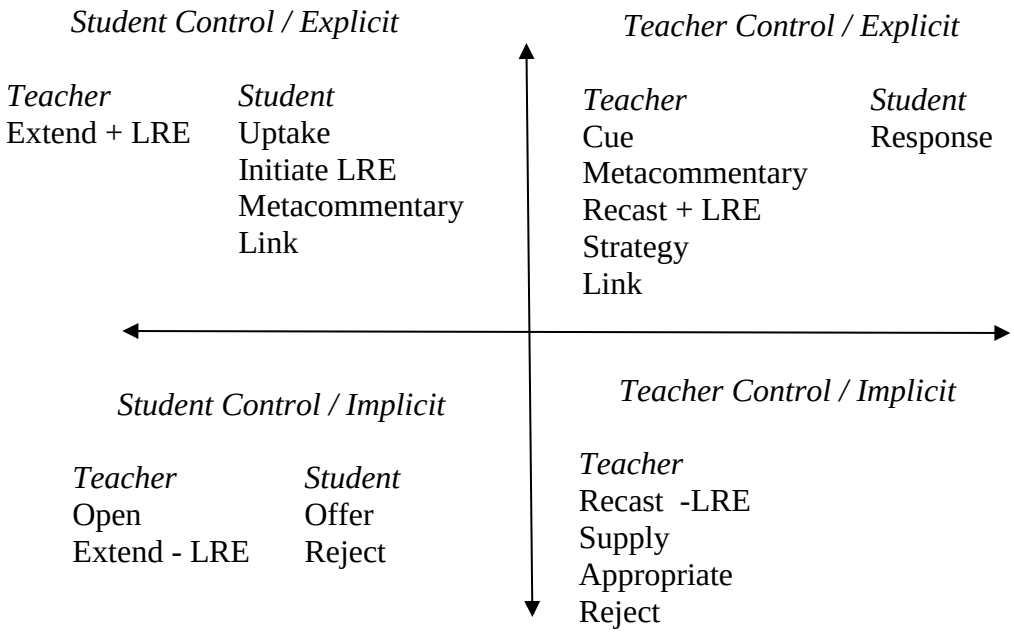


Figure 4 Quadrants of Scaffolding

Note: Please see Tables 25 and 27 for the definitions of the teacher scaffolding and student contribution categories, respectively. LRE = Language-Related Episode.

Student Control / Explicit Attention to Form

This quadrant accounted for 7% of all coded turns, over half of which were Extend+ moves. Although students did initiate LREs and engage in occasional metacommentary and links to the models, such moves were limited, which is consistent with the position ascribed to them in the expert/novice dynamic. It is not clear why only some students in certain classes were more likely to initiate the focus on form. The lack of uptake, when the student repeats a correction from a teacher's recast, does not necessarily indicate a lack of learning: the activity is designed to promote uptake in subsequent independent writing not necessarily in the immediate oral context, as will be discussed below. In addition, the collective nature of the Joint Construction tasks makes it less likely for an individual student to give an audible signal of uptake.

The signature teacher move of the Joint Constructions in this study is the Extend move, in which the teacher tries to engage the students in developing the text using their own ideas and linguistic resources. This form of scaffolding was inferred from previous research into Joint Construction (Dreyfus et al., 2008). However, it was used somewhat differently with this intermediate-level student population than with Dreyfus et al.'s advanced graduate students, who were able to contribute more substantial stretches of text. Many of the student contributions in the present study consisted of single words or phrases, from which the teacher elicited clauses and sentences using Extend moves, referring to a specific part of speech or grammatical structure in about a quarter of those cases.

For instance, in the following excerpt, the class is writing a focus sentence about the target buyer for the house; the Extend moves are labeled (plus or minus an LRE).

> 1 T: Now sometimes it's nice to come out and say who this house is great for. Let's mention here: this house ... let's finish the sentence. Remember how we talked about who would be interested? [points to the board]
>
> 2 S: big family
>
> 3 T: This house would be - what? let's come up with an adjective. [Extend+]
>
> 4 S: Ideal
>
> 5 T: Ideal, OK. For what? [Extend-]
>
> 6 S: Rich man
>
> 7 T: Let's not say rich, let's be specific. [Extend+]
>
> 8 S: Big family
>
> 9 T: A big family. Now here you could put an adjective clause. How would you describe the family? [Extend+]
>
> 10 S [not heard by T]: Which has rich
>
> 11 S [overlapping]: Who want to spend time at the beach.
>
> 12 T: Ideal for a big family who wants to spend time at the beach
>
> 13 S: and have quality life
>
> 14 T: and have quality life. [actually types “a quality life”] (E69-83)

The teacher has to supply the first part of the sentence (“this house would be”) but then extends the text by soliciting an adjective (3) and a category of buyer (5), which she rejects by asking for a more specific lexical item, another extension move with focus on form (7). Once a student has offered for the second time the idea of a big

family (8), the teacher recasts with the missing indefinite article and, rather than letting the text stand as a simple sentence ("This house would be ideal for a big family"), uses another Extend turn to elicit a relative (adjective) clause, naming the rhetorical function of the grammatical structure (9). It is worth noting that at least one student seems to recognize the teacher's intention of building a detailed sentence and spontaneously offers an additional extension (13).

As can be seen from this extract, which is typical of many more exchanges, teachers continuously modulated the scaffolding until students were able to contribute at the threshold of their linguistic and genre knowledge. These data show how teachers used the affordances of Joint Construction to meet the needs of students at the intermediate level, who are just developing the ability to use complex noun phrases and sentences.

The same phenomenon was observed by Dreyfus et al. (2008), but the teachers in this study went to greater lengths to avoid taking control of the text from students. For instance, in Section C, the teacher used the Supply move only seven times, fewer than half the median average of 15 turns. Instead, his students provided text and even self-corrected language errors:

1 T: OK, give us a sentence. [directs attention to the ideas on the board]

2 S: This two-floor house is located in sunshine beach or something. Sunny beach.

3 T: Do we want to say located in or located …?

4 Ss: Near

5 S: Which is far away from main roads.

6 T: OK, what do we think?

7 S: [unclear suggestion]

8 S: We have two “away froms.” We can use another word to describe it and not away from.

9 S: Maybe we can say two miles in the next sentence.

[several students speaking at once]

10 S: I think we just say near in the first, and then which is two miles from the main road.

11 T: OK, that's a good suggestion.

By withholding his own suggestions, the teacher allowed students space to negotiate both the form and content of this sentence, with one student even noticing an awkward repetition of the preposition “away from” (8). The teacher’s only intervention was to cue the correction of “located in” (3) to “located near” (4). Noticeably, students in this class section initiated 15 LREs, compared to a median average of six times. Arguably, here the students take turns to occupy the expert role, rather as Daiute and Dalton (1993) found in collaborative writing when students were equally matched. There is no other example of a Joint Construction in this corpus in which the teacher shared quite so much control with the students, so further research is needed to conclude satisfactorily that this hands-off approach contributes to the students’ degree of attention to form.

Also included in this quadrant are student utterances in response to Extend+ moves in which students provided their own content using the requested language feature (labeled here Offer+). The following excerpt is unusual in the extent of form-focused response and demonstrates the potential of the activity to generate meaningful negotiation of linguistic form:

T: Do we want to use any adjectives before kitchen or adjective clause after kitchen? [Extend+]

S: Which is big. [Offer+]

S: Which is big and modern. [Offer+]

S: We can say you will see the big kitchen and then describe. [Offer+]

T: We can say that, you will see the large and modern kitchen, do we want to describe it more? That's a way to add descriptive power to your sentence, add an adjective and put an adjective clause. So how about we try that. The modern kitchen which is what? [Extend+]

S:} Which you can cook nice food in. [Offer+]

S:} Which made from stone. [Offer+]

T: Which you can cook nice food in. (C264-271)

The exchange remains student controlled even as the teacher scaffolds the use of two target language forms in the context of the genre. Several students demonstrate that they can apply their grammatical knowledge to the task at hand, providing a good range of adjectives and relative clauses.

Student Control / Focus on Meaning

Half of all coded turns fell into this quadrant, where teachers were prompting and students were contributing text without an explicit focus on form. That is, the class's focus was on writing the descriptive text itself. Scaffolding in this orientation was provided by encouraging students to take ownership and authorship of the text through Open and Extend moves without naming a particular linguistic focus. From a functional perspective, all text negotiation necessarily implicates choices at all levels of linguistic form; however, in this quadrant, such attention was implicit as the class concentrated on content (that is, the ideational meaning of grammar).

In response to the teachers' prompts, students supplied words, phrases, or sometimes whole clauses and sentences using their own linguistic resources. At times,

they built on, modified, or rejected their peers' suggestions, all evidence of co-authorship. Some teachers were more directive with their solicitations, but they largely accepted students' contributions. It is clear from the videos that most of the students were engaged in the activity, which is supported by their opinion surveys (Chapter 4), although teachers often had to prompt quieter students or remind the class that everyone should be participating.

As an example of this student-centered, meaning-focused co-construction, in the following exchange, several students are building the final stage of the text.

1 T: Anything else? [Open] How do we finish based on the model? What's the last sentence in the fourth paragraph? [Link]

2 S: We are talking about how this is the best choice for you. [Offer]

3 S: If you're looking for a big house [Offer]

4 T: If you're looking for a big house

5 S: You can [Offer]

6 S: This is the best choice. [Offer]

7 T: This is the best choice for you. [Appropriate]

8 S: What are you waiting for? [Offer]

[laughter]

9 S: Call Omar at [offer]

10 T: What's your number, Omar? [laughter] We can put it if you like.

11 S: No. [Reject]

12 T: Actually it's a nice idea. Call Omar, but we won't put your real number. 302-222-3333. [Supply]

13S: That's my phone number.

14 T: Really?

15 S: No. [laughter] (CC372-391)

This exchange stays mostly in the student control/meaning-focused quadrant, although the teacher takes a little more control when he links to the model texts in the first turn and then appropriates a student's suggestion, turning "this is the best choice" (6) to "this is the best choice for you" (7). The students, meanwhile, are clearly focused on writing the text and enjoying the experience, offering text that builds on each other (e.g., Lines 2-3, 5-6, and 8-9). In this way, Joint Construction meets Schrage's (1994) definition of collaborative writing as a text no single author could have produced independently. Although they are not talking directly about language, the students are nonetheless producing accurate and complex texts through their interactions, which is one of the goals of this activity.

Teacher Control / No Explicit Focus on Form

In this quadrant, teachers took control of the text construction, as has already been shown, accounting for just over one fifth of moves (22%). The degree of control varied widely. In the next example, the teacher is nearing the end of the text where she directs the students quite explicitly toward a particular description of the second floor:

1 T: Anything else upstairs we need to know about?

2 S: Yes, laundry and laundry room.

3 T: Laundry room and

4 S: Bathroom

5 T: Which should we talk about first?

6 S: Laundry room.

7 T: Careful. Look at what we just talked about here. The master bedroom has a …

8 S}: Bathroom

9 S}: In addition to the other bathroom

10 T: We want to keep similar ideas together. So we probably want to switch the sentence about the master bathroom and say has a large walk-in closet and its own private bathroom. There is also another bathroom

11 S: At the same floor

12 T: Which the other bedrooms share. Now you can say in addition

13 S: To all this, they have a laundry room.

14 T: In addition, there is a laundry room. (GG372-385)

Here, the teacher essentially writes two sentences herself (10, 14), based on students' content suggestions, and also makes a change to the organization of the text, which she explains in a metacommentary (10). In sequences like these, the Joint Construction can turn into a modeling activity as the teacher engages the students as observing apprentices rather than as full writing partners.

At other times, teachers provided vocabulary or phrases that the students seemed to be reaching for by supplying words and phrases that were just beyond the students' knowledge. Such language provided at the point of need is theorized to be ripe for uptake since it exists at the students' language threshold (Swain, 1985). As will be seen below, some of these Supply moves appear to lead to uptake in at least some students' subsequent independent writing. For example, in this excerpt the student has skipped over the main verb entirely:

S: The spa space can five people.

T: The spa can - we have to think of a verb. Fit, we can do fit. Or contains.

S: Contains more than 5 people (EE163-165)

The verb *contain*, a somewhat advanced word for this level, is repeated by the student, which indicates immediate uptake, and then appears in two of the posttests from this class. Therefore, although Supply moves assert teachers' control over the text, they can still function as dynamic scaffolding, as Dreyfus et al. (2008) found, by providing opportunities for students to learn new language resources in a meaningful interactive context. Although it is impossible to trace the student in the transcript to the posttest, it seems that the uptake may have been shared by at least one more classmate, suggesting that even observing LREs like these may benefit some writers.

An alternative to supplying a word or phrase outright, used at about the same rate, is to appropriate students' language. The term appropriate is used without negative connotation by Hammond and Gibbons (2005) as a form of recasting in which the teacher helps students turn ideas and sentence fragments into fully formed clauses that are appropriate (hence the name) to the target genre. For example, Gibbons (2015) has shown how science teachers use this technique to teach students how to rephrase everyday language into scientific language. In the present study, such moves were coded when students offered single words rather than complete phrases and clauses, or produced non-idiomatic constructions. That is, the teacher took the students' raw material and shaped it into acceptable text. In the next example, the teacher is guiding the students in the description of the theater:

1 S: Speaker

2 T: How about if we say a great sound system. Do we just want to say people, friends, or family, who's going to enjoy?

3 S: Friends, friendly

4 T: Just friends can

5 S: Watch movie.

6 S: Play video game.

7 T: Can watch movies or play why don't we say giant video games because it's a projection wall. How about the size? Maybe we could say something about the size of the room?

8 S: Big, the size is big.

9 T: OK. In the biggest room in the house. (HH240-248)

The Appropriate moves are found at Lines 2 (*speaker* becomes *a great sound system*), 4 (*friends* is combined with the modal verb *can*, which then becomes an Extend move), 7 (the teacher combines two suggestions and again proposes an extension), and 9 (*the size is big* is transformed into *in the biggest room in the house*). Other Appropriate moves more simply stitched together multiple students' suggestions into a longer stretch of prose, modeling the text construction process:

T: Yeah, let's talk about location. So we could start with "this." Give me an adjective for this house.

S: Is located

T: Located is good, but give me an adjective.

S: Charming.

T: Ooh, good. Do you want to do charming?

S: Yes.

T: This charming house is located (EE 64-70)

A form of scaffolding not predicted by previous research was the Reject move. Although it requires some delicacy to reject a student's contribution without

discouraging further participation, this move is important because it provides the class with negative evidence about content and language choices that are not, in the teacher's opinion, correct or appropriate. This negative evidence is very difficult to develop in the study of models except by asking analysis questions; only one such question highlighting negative evidence was provided in the Deconstruction stage (Do the writers repeat the same adjectives in one article?) and none in the additional modeling provided to the control classes. Not surprisingly, teachers very often immediately followed a Reject move with a request for new text (a Cue, Extend, or less commonly, Open move) or, less frequently, with a recast, explanation, link to the models, or their own supplied text. That is, by rejecting a student's suggestion, the teacher created the space to discuss alternative formulations, point out features of the genre, or push for greater specificity or variety of expression. As with all the scaffolding in this quadrant, the primary focus is on producing a satisfactory description of the house, which is achieved through short or extended periods of teacher direction.

Teacher Control / Explicit Focus on Form

Just under a quarter of coded moves occupied this final quadrant, where the teacher was controlling the interaction in order to direct students' attention to the form of the language or genre of the collaborative text. The types of scaffolding in this category were also found in Hammond and Gibbons' (2005) study, with one additional type: explicit discussion of a writing strategy. Only one teacher discussed strategies more than once, although all teachers modeled strategies such as re-reading text and pausing during the transcription process to generate new ideas. The potential for Joint

Construction to serve as a model of the cognitive strategies for writing is not explored in this dissertation but would be a fruitful line for future research (see Chapter 6).

The most frequent interactional sequence in this quadrant is coded here as a teacher's Cue followed usually by one or more students' Responses, which are basically the first two steps in the well-documented Initiation-Response-Feedback instructional dialogue (Hammond & Gibbons, 2005). In these episodes, the teacher takes control of the interaction, albeit briefly, and attempts to elicit a specific word or error correction or nominates a particular student, either way constraining students' agency in the response. For example:

> T: In addition, there is a laundry room. [Recast-] Where's the laundry room, Hamad? [Cue]
>
> S: Between. [Response]
>
> T: Between? [Cue]
>
> S: The bedroom. [Response]
>
> T: Between two of the bedrooms. [Recast-] (GG385-289)

Here, the teacher has just recast another student's contribution about the laundry room and then prompts for more detail, nominating a particular student (all names are pseudonyms). Hamad is only able to offer the preposition *between*, so the teacher cues him again to finish the phrase, which he does but ungrammatically. The Cue move explicitly focuses on form because despite the lack of metacommentary, the student's attention is clearly drawn to the syntax of the sentence, in this case the need for and then the structure of the prepositional phrase. Furthermore, the possible responses are more constrained than in an Extend move: the teacher is aware from the floor plan that there is only one possible answer. Finally, she recasts "between the bedroom" as

"between two of the bedrooms" without metalinguistic explanation (that is, still high teacher control, but dropping the explicit focus on form). Cued elicitation was attested in Hammond and Gibbons (2005) and is a common questioning technique in ESL classes since uptake of the reformulated utterance seems to be facilitated by "pushed output" of the corrected form (Lyster, 1998; Swain, 1985).

Finally, there were around 100 instances of teachers engaging in metacommentary about the genre or, more often, language of the jointly written text. Many of the metacommentaries, like the LREs overall, were lexical in focus, with particular emphasis on avoiding repetition (e.g., "What I thought was I heard this house, this house, this house too many times. Same thing," CC) or explaining incorrect word choice (e.g., "I wouldn't say surround—if you say surround it means all the way around the house," E), but others explicitly discussed grammar (e.g., "what if we use an object of the preposition adjective clause, in which what?" CC). All teachers also used metacommentary to review the staging, purpose, and audience of the target genre (e.g., "What could you emphasize with the house? You do realize we're going to talk about the outside, then the first floor and the second floor so you don't have to say a whole lot in this paragraph," EE).

These moments occasionally and unexpectedly offered insights into the struggle some teachers were having to reconcile this genre-based pedagogy with the traditional essay mode of writing that usually dominates the curriculum.

> S: We can essay or just [?]
>
> T: Well we're writing four paragraphs it's not like a five-paragraph essay where you have
>
> S: Introduction's too long. I mean it will be
>
> T: Well, let's compare it to the models. (CC86-89)

The same teacher in the first session had struggled audibly to name the genre ("How should we start this essay? This writing? This home description. What would be a good first sentence?" C26). The teacher in Section EE repeatedly referred to the text as an "essay," although at least she did not try to use any of the usual paraphernalia of traditional essay writing (thesis statements, topic sentences, and so on). Although this confusion would be resolved with more experience with and perhaps commitment to genre-based writing pedagogy, it indicates the potential of Joint Construction to raise students' and teachers' awareness of the target genre and variation among genres (Johns, 2008). That is, the cognitive dissonance experienced when trying to call all writing an "essay" may lead to greater recognition that genre should be taken into account in designing assignments and teaching writing.

The excerpt from CC above also demonstrates the Link move, where teachers referred students back to the models studied the previous day in the Deconstruction stage of the Teaching/Learning Cycle. There was occasional tension here between using the models to guide original writing and relying too heavily on their language. There is a fine line between transferring learning, which will be discussed below, and leaning too heavily on models so that the scaffold becomes a crutch (Ortmeier-Hooper, 2013). A small number of students, for instance, wrote about a theater on the posttest, which was an unusual feature of the house in the Joint Construction but entirely absent from the floor plan of the house on the subsequent independent writing. The teacher in Section H touches on this tension at the end of her Joint Construction class:

> T: Is that how we want to end this? There's one more thing we have to do. Remember at the very end of our descriptions yesterday, what did we have? The very last sentence.

S: Have others to buy it.

S: The conclusion.

T: Yes, but what is the conclusion for this kind of writing?

S: [unclear] with the first paragraph.

T: OK but let's be more specific. We talked about this yesterday. What was the last sentence of reading 1 yesterday?

S: Tell you to buy the house.

T: Something about you buy the house.

S: This automatic

T: This automatic? This

S: Unique.

T: I like it. Give me another one unique and

S: Luxurious.

T: [laughter] What's another word instead of luxurious?

S: Fantastic.

S: Golden?

T: I like fantastic, let's call it fantastic. Home. Let's not say house, house, house.

S: [reads from the article] is ready for

T: Don't read from that! Is what?

S: Waiting for you.

T: Is that reading 2? You came up with your own words? Is waiting for you to what?

S: To buy.

T: To buy. Let's leave it at that. (H566-589)

The teacher successfully redirects the student who gives the pat answer that the text ends with a conclusion (a symptom of a traditional writing curriculum which treats all writing as expository) by focusing on the purpose of the last stage of this genre to appeal to the intended buyer. The students then co-construct a sentence with a string of descriptive adjectives that have positive connotations. Meanwhile, the teacher pushes her class to work around rather than repeat the language of the examples (e.g., *luxurious*).

Summary: Quadrants of Scaffolding

The proposed model of scaffolding in Joint Construction draws on existing research and theory into collaboration, teacher-student interaction, and second language acquisition to provide a nuanced view of the choices that teachers make and the ways that students respond while negotiating text. As the above extracts show, it is impossible to categorize any Joint Construction by its predominant orientation in the diagram proposed in Figure 4. The scaffolding provided and the contributions proffered are dynamic, moving fluidly between teacher and student control, and from meaning-focused episodes to focus on form and back again, often within a couple of turns.

Prototypical Joint Constructions

The quadrant model is thus effective for categorizing student and teacher moves. However, since all Joint Constructions exploited all four quadrants, it does not serve as a taxonomy of classroom dynamics, as Storch's (2012) heuristic does for dyadic collaborative writing. At the same time, it is clear from the transcripts that the patterns of interaction vary widely among the class sections. Therefore, it is instructive

to create prototypes of Joint Construction based on theoretically grounded, idealized patterns of scaffolding. In a prototype model of classification, membership of a category is determined by proximity to the key features that constitute the "summary representation," of prototype (Ross & Makin, 1999, p. 208). Therefore, in the spirit of the mixed-methods design, the Joint Construction lessons were classified qualitatively by examining the quantitized move data in order to identify instances of the activity that came closest to the prototypical orientations of Joint Construction that might be theorized.

In theory, then, a Joint Construction event might be fully balanced between the four quadrants of Figure 4. There would be equal contributions from students and teacher, with form and meaning in equilibrium, creating a prototype of participatory co-construction. It is also possible to envisage a whole-language approach to Joint Construction which pays scant explicit attention to form, focusing exclusively on completing the text in a meaningful way (meaning-focused construction). Conversely, the teacher and students could pay such heavy attention to form that the purpose and quality of the finished product fall by the wayside (form-focused construction). Two further prototypes are possible: think-aloud, in which the teacher essentially models her own writing process with little input from the students; and guided writing, its converse, in which the teacher provides as little direction as possible in order to let students construct the text collaboratively but independently.

No actual Joint Construction in the study is an exact fit for any prototype. However, based on the distribution of moves, a Joint Construction can be assigned to all but one of the prototypes, recognizing that these events may be more or less typical (Table 31). These four cases are considered below.

Table 31 Prototypes of Joint Construction

Prototype	Control	Explicitness	Example
Participatory co-construction	Largely balanced between teacher and students	Substantial attention to form alongside meaning	H
Think aloud	Mostly teacher controlled	Balance attention or more meaning over form	GG
Guided writing	Mostly student controlled	Balanced attention, or leaning towards meaning over form	C
Meaning-focused co-construction	Balanced or leaning towards the teacher	Little explicit attention to form and genre	EE
Form-focused co-construction	Balanced or leaning towards the teacher	Frequent explicit attention to form and genre	No clear example

Participatory Co-Construction: Section H

Section H came closest to achieving a balance among all four quadrants in Figure 4 and can thus be considered mostly typical of the participatory co-construction prototype. After combining all the coded teacher and student moves, this lesson results in an almost equal split between teacher control and student control (48% to 52%) and a fairly high number of turns that evinced explicit attention to form (35% versus the average for all sections of 28%). The teacher used Extend moves heavily but appropriated and supplied text only very rarely. However, she also more freely rejected inappropriate suggestions than most other teachers, often with a sense of humor that encouraged rather than stifled further participation. The resulting text was thoroughly a joint production in which students had ownership but which still bore

marks of the teacher's guidance, including attention to vocabulary and grammar (there were about an average number of LREs in the Joint Construction). At posttest, the average quality score, adjusted for pretest quality rating, was 3.23, approximately a quarter of a point above average, and all but one of the students wrote in the target genre (the anomalous paper is discussed in a footnote, below).

The following excerpt, in which the class is describing the second floor of the house, demonstrates the balance between the quadrants of scaffolding in Section H.

1 T: OK how about the second floor? What do we see on the second floor? [Open]

2 S: There is four bedrooms on the second floor. [Offer]

3 T: There is? [Cue; LRE: s-v agreement]

4 S: There are. [Response]

5 T: There are four bedrooms on the second floor.

6 S: One of them is on the left side and there is [Offer]

7 T: Which one is on the left? [Cue]

8 S: Master. [Respond]

9 T: The master bedroom is on the left and what can we say about the master bedroom and, maybe we'd say and [Appropriate/Extend]

10 S: It has a deck. [Offer]

11 T: Nice, it has a deck. What does the deck go to? [Extend]

12 S: Help you to imagine. [Offer]

13 S: Extend the scene. [Offer]

14 S: When sit on the deck, you can extend your sight. [Offer]

15 T: What do you mean by extend your sight? See far away? [Recast-; LRE: lexical]

16 S: On the horizon. [Offer]

17 T: OK, you can see the horizon. Has a deck with a view of the horizon. Is that what you're trying to say? With a deck that you can see the horizon? Give me some ideas, guys. A deck which you can sit on [Supply/Extend]

18 S: Where you can see [Reject/Offer]

19 T: Where you can see, I love that. How about earlier, one of you said you can see the sun? [Cue]

20 S: Sunset. [Response]

21 T: Sunset.

22 S: Can we say the master bedroom is in the left which has folding door system? [Offer]

23 T: You could say that but it sounds like the left has a folding door system not that the master bedroom has a folding door system. [Meta; LRE: relative clause] (H493-515)

Control in this exchange is shared between the teacher (using Cue, Supply, and Meta moves) and students (who not only respond to her cues but offer a substantial amount of text up to and including entire sentences). There are both implicit (15) and explicit LREs (3, 23) as well as spontaneous use of the target grammar (18). Attention is directed to both content and language, resulting in an effective description of the bedrooms. Here as throughout this lesson, the teacher draws on all the affordances of the Joint Construction task to highlight useful vocabulary and grammar, reinforce the genre structure, and co-construct a complete and detailed text.

Think Aloud: Section GG

Section GG was somewhat unusual as it was a very small class with five students, only three of whom gave consent to participate in the study. The three students with available data covered the range of language proficiency with one rated

below level, one on level, and one above level at pretest; although they all wrote posttests in the correct genre, their quality scores were low (2.0-2.25). It is not clear whether these factors or the teacher's own style led to the more directed mode of interaction in this Joint Construction, and of course the lesson is not a pure instance of the think-aloud prototype but simply the most typical out of this corpus.

The types of scaffolding that the teacher employed point towards the qualities which make this Joint Construction sound as though the students are helping the teacher write the text rather than co-constructing it. The data point to the teacher's relatively substantial use of moves that were teacher-controlled and meaning-focused alongside somewhat fewer moves in student-controlled sectors. A qualitative analysis confirms these patterns. In the following excerpt, sentences about the approach to the house are under negotiation.

> 1 T: So we need some sentences. And you can look at your articles from yesterday if you need to remember how they talked about the outside of the house.
>
> 2 S: Location.
>
> 3 T: I think we already said the location. Do we need to say more? Is it in a neighborhood close to the beach or directly on the beach?
>
> 4 Ss: Directly on the beach.
>
> 5 S: When you walk in
>
> 6 T: When you walk
>
> 7 S: Like with the beach behind you, how can you say that, when you coming back from the beach the first thing you see is stairs.
>
> 8 T: OK, so let's say it this way: The stairs that lead to the entry—OK, that's our adjective clause because what stairs?—the stairs that lead to the entry come up from the, come directly up from the beach? Is that what you want to say?

9 S: Yes, to this black and white house. Err, white wall, black trim house?

10 T: OK how about we try this. Is it a modern style or a traditional style? Look at the picture.

11 S: Yeah, it's modern.

12 T: To this modern white home, we can put black trim in a different sentence. Tell me again why we used white walls, Hassan?

13 S: To keep it cool.

14 T: The bright white walls (deletes "white" from the previous sentence without comment) keep the home cool from the sun, and do we like the black trim?

15 S: Yeah

16 T: Make a picture in your mind. how does that black make it look?

17 S: Maybe beautiful.

18 T: Be more specific.

19 S: It's like shiny. If you put anything near the white, it's going to give it more color, like the board.

20 T: OK, and black trim on the windows and doors stands out, that's called in contrast. (GG127-146)

Although the students are far more than passive observers, it is the teacher who is leading this construction, modeling for students how to develop a detailed description. While she certainly uses the students' ideas and contributions (5, 9, 13, 19), she is also driving towards her own vision of the text, using explicit cues (1, 3, 10, 12, 18) and both supplying (20) and deleting text (14). These are clearly all options afforded by the Joint Construction activity, and there is no lack of student participation; in fact, this section resulted in the median number of coded student turns. Students also took the opportunity to ask the teacher to provide vocabulary and reformulate their thoughts

(7, 19), which the teacher validates ("Is that what you want to say?"). Therefore, even though the class overall sounds more like a prototypical think-aloud than any other in this study, the teacher continued to draw on all four quadrants so that students were engaged and aware of the language and genre.

The resulting text was certainly more sophisticated than the students could have written without substantial help: it is by far the longest of the collaborative articles (653 words, almost twice the average length) and uses the most relative clauses (20) and clauses per T-unit (1.97), suggesting almost every sentence was either compound or complex. The text also contains higher than average numbers of adjective types and tokens. At posttest, students in the class had the lowest average quality scores of all the treatment sections (2.15 adjusted for pretest quality). This does not in itself mean that the guided writing style of Joint Construction is less effective than other orientations, especially given the very small sample size in this section, but it raises the question of whether the complexity of language and content that the teacher was striving for in the collaborative activity may have been beyond the students' threshold. However, all three students successfully produced the intended genre, suggesting that they did at least learn the text structure.

Guided Writing: Section C

On the opposite end of the spectrum, the teacher in Section C was almost unwilling to provide his own text, relying most heavily on students' contributions. The dominant forms of scaffolding in this class were opening and extending questions, with less appropriated or supplied text than average. The teacher largely accepted students' contributions but still pushed them to expand on their colleagues' suggestions. Perhaps as a result, students initiated considerably more LREs than in

other classes (15 versus a median of six) and engaged in half the total recorded instances of student metacommentary. The following extract demonstrates all these features as well as the teacher's strategic use of Cue moves to draw attention to linguistic form (Turns 6, 8):

> 1 S: I have another idea. There are many parking place for friends who come to visit.
>
> 2 T: What do you think?
>
> 3 S: Actually, I have already thought this sentence but I think I want to this in paragraph 3. Because in paragraph 3 we would like to talk about the details inside the house, so we can talk the place that we can invite the friends to visit here so when I talk about that I can put it in.
>
> 4 S: But it's outside.
>
> 5 S: I know but if we talk about it here and in paragraph 3 we talk about invite friends again. I think it just repeat.
>
> 6 T: So what does the class think? Should we put the parking place in paragraph 2 or 3. Who wants it in 2? 7 hands. 7 must be the majority, right? Paragraph 2. There are many parking place—parking place?
>
> 7 S: Places.
>
> 8 T: Parking places for friends who come to visit. Do we need a comma?
>
> 9 Ss: No.
>
> 10 T: No, not really. Because we don't care about the friends who don't come to visit, they don't need a parking place. The only people that need it are the friends that come to visit. (C142-152)

The teacher encourages the students to debate where to refer to the house's parking spaces, engaging in metacommentary about the structure of the text (3-5). He even lets the class adjudicate the dispute with a show of hands (6), intervening only to cue the plural form of *places* (6-7). He then initiates an LRE to check understanding of the

restrictive relative clause (8), following up with his own grammatical metacommentary (10).

The resulting text is imperfect but identifiably the students' work. It is the shortest collaborative text (241 words) but uses around the average number of relative clauses (11) and a good range of adjectives with little repetition (adjective type/token ratio of .88). Students in this class wrote descriptions at posttest that received adjusted average ratings of 3.35, amongst the highest of the treatment sections, and all students instantiated the target genre. It appears, therefore, that the lack of teacher control did not impede and may even have boosted students' learning.

Meaning-Focused Co-Construction: Section EE

In a prototypical meaning-focused co-construction, there would be little or no overt attention to the language of the text in order to build a fluent and comprehensive description of the house. Since this study was embedded in an intensive ESL class and contained clear linguistic targets, it would have been surprising to find a close instance of this prototype. However, Section EE approaches this feature set since most of the attention to language was implicit, with the only metalinguistic commentary provided very briefly during certain Extend+ moves; there were no explicit recasts or moves that were entirely metacommentary. Interestingly, this is also the only class that does not start with a recap of the genre stages, and the teacher makes almost no reference to the previous day's models, except for one comment in the initial Bridging phase about not mentioning the price of the house or negative information ("like taxes or hurricanes"). Instead, she integrates a recap of the text structure into the writing of the article ("I think we're done with the outside. We did the reason for selling with the last sentence telling what kind of buyer would be interested, then we did the outside, now

we're going to go to the first floor") and emphasizes the importance of building the text around a "controlling idea," in this case the idea that the house is suitable for a large family. All these decisions contribute to the meaning-focused nature of this Joint Construction.

The following extract demonstrates some of the features of this type of interaction. The class has just started writing about the second floor of the house.

1 T: Do we want to describe the master bedroom first? Or what can we say about the second floor.

2 S: [inaudible]

3 T: The second floor -- how can we finish this sentence?

4 S: Has three large rooms.

5 T: Let's go with the total number first.

6 S: Four bedrooms and a deck, a tiny deck.

7 T: Four bedrooms, one bathroom, and what?

8 S: A tiny deck.

9 S: Not tiny.

10 T: I think it's pretty large.

11 S: Compare with the big sun deck it's tiny.

12 T: A large deck. They have a laundry.

13 S: In the first bedroom you can see the view of mountain.

14 T: In bedroom one or two?

15 S: One. In the bathroom.

16 T: In the bathroom? Ah. In the master bedroom, let's say: The master bedroom has

17 S: maybe you will see dress, no [?] windows.

17 S: Full-scale.

18 T: In the full-scale master bedroom or bathroom?

19 S: Bathroom.

20 S: Let's do the bedroom.

21 T: And then we can go into the bathroom. The full-scale master bedroom has

22 S: Individual bathroom.

23 T: You can do that, an individual bathroom. What else does it have? Do you see how it looks over the deck? Right here it has windows. It says folding door system. Individual bathroom and folding doors that can enter the sundeck. OK now let's talk about the bathroom. What does the bathroom have? (EE233-256)

Although the teacher recasts and appropriates students' language (7, 16, 21), she does not interrupt the flow of the negotiation to comment specifically about vocabulary or grammar, instead letting the students build their description. The result is not always entirely idiomatic ("the full-scale master bedroom"), but it captures the students' ideas and is written within their Zone of Proximal (linguistic) Development. Control is shared with the students, who guide the direction of the text (20) and sometimes reject each other's (9) and the teacher's suggestions (13).

The jointly written text was somewhat less complex than average in terms of lexical density, clause complexity, and use of relative clauses. However, the text contains a greater than average number of adjectives. These results are consistent with a Joint Construction activity that prioritized descriptive detail over focus on form. At posttest, students' writing was rated above average with an adjusted mean score of 3.36. Two of the students somewhat misconstrued the genre and wrote articles in

which they tried to sell their own house—perhaps a reflection of the focus on content over structure—but the others all produced the correct genre.

Prototypes: Summary

The prototype analysis is useful because it creates a framework for further investigation into Joint Construction. There are insufficient data here to confidently associate prototypical lessons with the quantitative data, and there may be reasons for which teachers chose particular approaches that are not clear in the transcripts. However, there are suggestions of trends for future research to investigate: in classes that focus more explicitly on language, the resulting text seems to have greater complexity. Reinforcing the genre staging seems helpful at least for some students to remind them of the expected parameters of the genre. The balanced co-construction has the potential to be the most useful prototype since it theoretically combines the strengths of all the different types of scaffolding. The only approach which seems somewhat less successful is guided writing, but it is impossible to know whether a different orientation would have produced better results with another group of students. Likewise, the success of the most student-controlled interaction is certainly worth further investigation but might be in part a response to the behavior of those particular students.

Transfer from Joint Construction to Independent Writing

Thus far, the quantitative data discussed in Chapter 4 have focused on the students' written products after the collaborative writing activity, while the qualitative analyses in this chapter have investigated the dynamics of the task itself, a distinction that was observed in much of the extant literature (Chapter 2). The purpose of

analyzing both the process and outcomes of collaborative writing in this mixed-methods study is to trace uptake or transfer from the Joint Construction into students' subsequent independent writing. Some evidence has already been provided in Chapter 4: students in the treatment condition were significantly more likely to write texts that broadly met the expectations of the target genre than those who participated in the modeling-only control condition. Furthermore, one measure of lexical complexity was significantly affected by the intervention, even though most measures and the overall quality rating showed no significant benefit. However, the statistical analyses may miss aspects of learning from Joint Construction that other analyses of the posttest texts may reveal.

As described in Chapter 3, three types of transfer are targeted: content elements, vocabulary, and the grammar to which LREs attended during the collaborative writing. In this way, specific episodes from the Joint Construction can be traced into each individual student's writing. Table 32 provides a summary of the average level of transfer in each class section in terms of the number of elements and the proportion of possibly transferable elements from the respective Joint Construction. Both mean and median averages are provided since the class sizes are different, which makes mean averages more susceptible to outliers, although in the end, the two averages are very similar.

Each type of transfer is discussed and illustrated below using a stratified sample of posttest writing (Appendix R). To create this sample, three papers—one each with low, average, and high descriptive quality scores—were selected from students at each of the three levels of language proficiency (below, on, and above level), representing all the teachers and as many sections as possible. The stratified

sample responds in part to the inconclusive quantitative analysis of a possible interaction between language proficiency and condition. The selection is summarized in Table 33.

Table 32 Content and Language Element Transfer by Section

Section	Lexical elements			Content elements			LREs		
	Total	Mean *n* (%)	Median *n* (%)	Total	Mean *n* (%)	Median *n* (%)	Total	Mean *n* (%)	Median *n* (%)
C	24	5.7 (24%)	4.5 (19%)	25	16.8 (67%)	17 (68%)	9	4.3 (48%)	4.5 (50%)
CC	28	2.1 (8%)	2 (7%)	26	9.8 (38%)	9 (35%)	11	1.4 (13%)	1 (9%)
E	45	9.7 (22%)	10 (22%)	28	17.0 (61%)	17 (61%)	10	2.9 (29%)	3 (30%)
EE	54	8.6 (16%)	7 (13%)	27	14.1 (52%)	14 (52%)	12	1.3 (11%)	1 (8%)
G	33	4.0 (12%)	4 (12%)	29	11.3 (39%)	11 (38%)	NA [a]	NA [a]	NA [a]
GG	50	3.3 (7%)	4 (8%)	36	11.7 (33%)	11 (31%)	9	1.0 (11%)	1 (11%)
H	37	5.2 (14%)	5 (14%)	19	10.8 (57%)	11 (58%)	18	5.1 (28%)	5 (28%)
HH	41	7.4 (18%)	7 (17%)	25	11.9 (48%)	12 (48%)	11	3.4 (31%)	3 (27%)
Mean (all)	39	5.8 (15%)		26.9	12.8 (50%)		11.4	2.9 (24%)	
Median (all)	39		5 (13%)	26.5		14 (53%)	11		2.5 (23%)

Note. Total lexical items are word families in the jointly written texts outside the top 1,000 word families of English (Cobb, 2015). Total content elements and LREs are those identified in the Joint Construction transcript and text for each section. Averages are for student texts in each section. [a] Data are not available for LREs in Section G.

Table 33 Stratified Sample of Treatment Posttest Writing

				Transferred Elements		
Student	Language	Quality	Genre	Content	Lexical	LRE
CC10	Below	Low (1.5)	Description	2 (8%)	0	0
HH12	Below	Mid (2.75)	Target	13 (52%)	12 (29%)	3 (27%)
C8	Below	High (3.75)	Target	17 (68%)	5 (21%)	4 (44%)
G5	On	Low (1.5)	Target	8 (28%)	2 (6%)	NA
E6	On	Mid (3.0)	Self-sale	13 (46%)	10 (22%)	4 (40%)
H2	On	High (4.25)	Target	12 (63%)	7 (19%)	1 (6%)
C3	Above	Low (2.5)	Target	17 (68%)	11 (46%)	5 (56%)
E2	Above	Mid (3.25)	Target	16 (57%)	10 (22%)	4 (40%)
EE2	Above	High (4.75)	Target	18 (67%)	10 (19%)	2 (17%)

Notes. Language is rated as above, on, or below the expected level. Descriptive quality is on a scale of 1-5. Genre is categorized as Target (the target genre of a featured house article), Self-sale (a featured house article about the student's own house), or Description (a pure description). Content, Lexical, and LRE (Language-Related Episodes) are measures of transfer (see Table 32). The complete student texts are reproduced in Appendix R.

Content Transfer

The models studied in the Deconstruction lesson proposed relatively simple staging (i.e., typical organization) for the featured house genre, based on actual articles found in the local newspaper. However, the ideational unit analysis conducted in order to detect transfer of content elements resulted in a more sophisticated description of the usual and possible moves in the texts that classes co-constructed. Table 34 presents both the anticipated structure and the actual moves within each stage of the genre.

As seen in Table 32, on average, students included about half of the ideational units from the joint writing in their posttest writing. These ranged from elements that were largely self-evident, such as describing the master bedroom, to less obvious and more idiosyncratic ideas, such as describing the exterior color of the house, the kitchen appliances, or the rationale for adding a guest bathroom. In the stratified sample, it is striking that lower-rated papers typically used fewer content elements from the Joint Construction, and that students whose linguistic proficiency was on or below level scored higher on the quality rating when they used more content elements. This is not a causal link, but it suggests a relationship between the degree of ideational transfer and posttest quality. The three above-level students in the sample all used large proportions of the content elements from their Joint Construction, which lends support to the threshold hypothesis, namely that these students were able to focus more on the content and structure of the text because their written grammar was already somewhat more developed. On the other hand, some students with lower-proficiency seemed unable to benefit as much from the collaborative task.

Table 34 Genre Analysis of the Featured House Article

Expected stage	Actual moves
Story about the owners	Owner - name, job, story
	(History of the house)
	(Location + benefits; how owner used the house)
	Reason for leaving (+ comment about selling)
Focus or main idea of the article	Focus attractions of house (+ target buyer as main idea)
Description of the outside of the house	(Parking)[a]
	Location / surrounding / neighborhood
	Outside features and activities
	Approach to the house
	Description of outside: e.g., view, color, first sight of house
Description of the first floor / living areas	Entrance to house
	Orientation inside house
	Rooms with details, reasons, descriptions; sometimes starting with key feature/first thing you see
	Activities; reader imagined in the house View from first floor
	Transition to second floor

Table 34 continued

Description of the upstairs / sleeping areas	(Overview of second floor) Master bedroom and features Other bedrooms and features or uses View from second floor Other spaces (and functions) (Reminder of focus or intended buyer and lifestyle in the house; link back to introduction) Reinforcement of benefits of the house
Invitation for a new owner	Encourage buyer to consider house or take action (e.g., contact details)

Notes: Parentheses indicate an optional move, found in some texts but not the majority. [a] Comments about parking were especially flexible, appearing in several different positions.

This pattern can be seen by comparing posttests CC10 and E6. Both texts miss the target genre, although E6 is closer to the typical staging. CC10 is purely a description and bears few of the content elements negotiated in the Joint Construction. This can be seen by identifying the Themes of each clause, where Theme in SFL refers to the first part of the clause, usually up to the main verb. Themes indicate what the clause is about, and the progression of Themes provides clues to the development of the text. The Themes in the first clauses of CC10 are:

> These house / they [the bedrooms] / two master bedrooms and 4 normal bedrooms / in the first floor, the dining room / the garage / and there's (a bathroom) / the living room

This is essentially a list of rooms with little description of each, which helps explain why the text is ineffective. By contrast, the sentences in the third paragraph of E6 guide the reader through the house:

> Come in the house / on your right side / turn left to living room / people / next is dining room / looking to your lift [left]

This paragraph draws on many of the content elements from the comparable passage in the Joint Construction: entering the house, the first thing the viewer sees, directions as for a guided tour ("when you walk in the kitchen"), the size of the TV screen (5-square meters in the joint text, but 3-square meters here), and a light fixture. The light fixture is repeated almost exactly from the collaborative text, but in the student's text, it is foregrounded as the most striking feature of the first floor. In addition, a content element from the second floor of the joint text (activities for guests) is employed to describe the first floor ("people can invite friends to movie time on Friday's evening"). It can be seen how this writer adapted elements from the Joint Construction for her own writing, which CC10 was unable to do.

On the other hand, texts could follow the stage structure but still be rated as underdeveloped, such as C3. The writer's language proficiency is evident: she correctly uses noun, relative, and adverb clauses; passive voice; and a range of tenses, some of which were negotiated in the Joint Construction. However, the description rarely extends beyond the size of the rooms, so while many elements of the house are named, only some are developed.

Other writers exploited the affordances of the genre to produce creative and detailed articles. Posttest H2 was written by a student who started the session at the expected level of proficiency. The writer seems to have taken some of the advice in the Joint Construction to heart. For instance, the teacher rejected a student suggestion that used a general noun as the agent of a clause ("*people* who live in this house"), commenting:

> Remember you're supposed to be talking to the people who might buy this house, so you've got things in here like you will enter, you will walk, so who is going to rest or relax?

Perhaps as a result, from an interpersonal analysis, the writer uses a large number of second-person references, and also implicates the reader using other choices in the mood system such as interrogatives ("it sounds exciting, right?"), imperatives ("let's pay more attention," "help yourself"), colloquialisms ("Okay …"), and other signals of interactivity ("Right, it's a library!"). However, some choices are less effective, such as the use of the first-person pronoun ("Today I want to describe a house which has two floors") or adjuncts of politeness in imperatives ("please go upstairs"), which were not used in the models or Joint Construction. It is much less evident to deduce from the models and collaborative text what is not common or possible in the genre

unless such negative evidence is explicitly highlighted in the interactions, as discussed above.

A strength of H2 is the writer's support for key elements of the house, the need for which was emphasized by the teacher: For instance, when constructing a sentence about the glass partition between the living and dining rooms, the teacher pressed the students to give a reason for this special architectural feature ("There is a glass partition between the dining and living rooms that lets the sun shine in to illuminate but divides the spaces"). In this student's posttest, he supports many aspects of the house with reasons or unusual functions (emphasis added):

> The monitor of the television is fixed on the five different walls. In other words, <u>you can feel like yourself living in a fiction world</u>. […] A bathroom is near the living room <u>so if you want to take a shower, that is a convinent path</u>. If you are hungry, don't worry about that, that the kitchen stores everything you want which adapts to this season. There is an advanced machine <u>which can cook almost all of the western meals automatically. After cooking, it will pass cooked food into dining room directly</u>.

Overall, the data suggest that most students, with the possible exception of those with the lowest language proficiency can benefit from Joint Construction by incorporating ideational elements from the collaboratively written text in their independent writing. The act of co-constructing the text reinforces the genre stages and opens up discussion about what does (and, sometimes, does not) belong in the text. The most successful writers go far beyond rote repetition of these elements by exploiting the underlying functions, such as construing genre-appropriate interpersonal and thematic meanings and supporting ideas with reasons and details.

Lexical Transfer

The qualitative analysis has already shown that teachers paid substantial attention to lexis during their Joint Constructions, eliciting words from students or providing and explaining new words. It might therefore be expected that the posttests would show evidence of vocabulary uptake. Vocabulary acquisition can occur both through focused instruction and incidentally (Nation, 2001). Therefore, the entire jointly written text was used as the basis for transferable lexis and not just the words discussed in LREs. However, this measure of lexical transfer does not take into account vocabulary already known to some or all of the students and thus cannot be interpreted unambiguously as a measure of learning. Although the first 1,000 word families of English were excluded, around two thirds of the words that transferred are found in just the next thousand word families (calculated using Cobb, 2015), including words presumed familiar such as *guest, university, screen, meat,* and *welcome*.[4] However, that still leaves some less frequent vocabulary in the texts, such as *architect, column, unique, ample, stove,* and *Jacuzzi*. Even if some of the words that co-occur in the collaborative and independent writing were not new to the students, one of the goals of vocabulary instruction in ESL is to activate receptive vocabulary so that students use greater lexical diversity in their writing and speaking (Nation, 2001). Therefore, it seems likely that at least some of the words that appear in the posttests after being used in the Joint Construction represent uptake of new words or activation of dormant vocabulary.

In the stratified sample, students with higher language proficiency used more of the transferred words, which may be imputed in part to their prior knowledge. Generally, the students with lower quality scores transferred fewer words, but it is striking that the lower-proficiency and on-level students who did use the vocabulary

from the Joint Construction were rated somewhat higher than the others. For example, student HH12 used seven words from the collaborative task in his posttest, including four in the following paragraph (misspellings, capitalization errors, and incorrect word forms are reproduced here but were ignored for this analysis):

> On the upstair Floor, This luxiory house has three spacious Bedrooms and a enormous Master Bedroom which are possess private Bathrooms, and every bedroom have enough space for closet to hang out the clothes or put some personal stuff.

Student E6, an on-level writer who earned the average rating of 3, used ten words: *modern, chat, stairs, meter, convenient, sofa, ocean, pink, screen,* and *spin*. Noticeably, these words enabled her to write more detailed descriptions, along the lines of the collaborative model, for example: "people can drink tea and chat with their friends," "there is a modern table that can enough for 12 person," and "in bathroom, every[th]ing is pink because I think it can make bathroom brighter than other colors."

It is sometimes possible to connect the vocabulary with LREs that occurred during the Joint Construction. For example, the teacher in Section EE supplied the adjective *elegant* to describe the living room, which one student then used to describe the dining room at posttest. She also proposed the word *majestic* for the view, which appeared in three posttests, including this sentence which also employed another negotiated adjective, *tremendous*: "It is a very large and magnificent house, which has a tremendous wooden door" (EE1). Although the present analysis does not trace the source of knowledge from the Joint Construction to the posttest (since I could not match voices on the videos to writing samples), it is striking how often words that one student proposed find their way into multiple students' posttests. For example:

> T: Actually, what about "the view of the sunset is …" what would you put?

S: Magical.

T: Magical from the—you said spa?

S: Yes, spa. (EE93-96)

The word *magical* then appears in three posttests, showing that it was not only the student who suggested the word using it in writing. This is evidence that the negotiation of form in the collaborative writing task occurs within the students' ZPD, where shared expertise is either activating existing vocabulary schema or promoting learning.

While causal claims cannot be made due to the lack of a pretest vocabulary measure, further support for this hypothesis can be found in the creativity with which negotiated vocabulary was used in the independent writing. For instance, posttest EE2, which is included in the stratified sample as an example of very highly rated writing from an above-level student, incorporates ten words from the Joint Construction. Whereas *magical* was originally used for the view from the spa, this student writes:

> Therefore, you can play everything with your wife in this magical bathtub.

Other examples include *fantastic*, which was suggested by a student during Joint Construction to describe the bedrooms but is used at posttest to introduce the house. Conversely, *charming* is a student contribution to the introduction of the house in the Joint Construction but appears in the student's writing at the end of the article ("This charming house is available …"). Other interesting vocabulary transfer in this text includes *professional* ("there is a proffesional servant to take care of that garden") and *handmade* (a tea table in both the collaborative and independent texts, but creatively expanded by the student: "the handmade tea table is made by a chinese who is dead 300 hundred years ago"). As with the content elements, it is clear that students like

this are not merely reproducing the class text but internalizing both content and language from the interaction, which they subsequently use for their own purposes.

Transfer from Language-Related Episodes

There are so many factors that affect students' use of grammar in their independent writing, chief among them prior knowledge, that it is impossible to make confident claims about uptake between the Joint Construction and independent writing, especially when conducting research in real-world contexts where many variables cannot be controlled. Students may have used any given grammar form spontaneously in their posttests with or without the collaborative writing lesson. Conversely, much of the error correction negotiated in the Joint Construction is impossible to trace into students' writing in this research design because the absence of an error (e.g., the correct use of plural inflections or the omission of an unnecessary article) cannot be reliably coded. However, when a grammatical structure that was produced in an LRE bears a striking resemblance to a sentence in a student's subsequent writing, one hypothesis is that uptake has occurred.

In Tables 32 and 35, LREs involving relative clauses[3] are omitted as they are captured in other measures (Table 19). Relative clauses were highlighted in all the Joint Constructions, taught explicitly alongside the instructional unit, and were used in all but eight students' posttests. As was seen in Chapter 4, although students in both conditions showed dramatic improvement in their ability to use relative clauses—at pretest, almost half of the students did not attempt this complex structure at all—students in the treatment sections did not use more than those in the control condition, suggesting that both modeling and Joint Construction, along with explicit instruction, helped students understand when and how to use relative clauses.

Therefore, although Joint Construction cannot be said to have made a unique contribution in terms of relative clause use, it is still interesting to analyze the progress that students made by comparing posttest writing to the LREs. Section C is a useful example since it was the class identified above as closest to the guided writing prototype, in which the teacher tried to draw language out of the students to a greater degree than most classes. There were ten LREs involving relative clauses, with an unusual mixture of teacher and student initiation. For example, to start the article, a student proposes the sentence: "Mr. Wilson which is a famous artist bought this house two years ago." A few turns later, a classmate corrects the choice of relative pronoun (*who* not *which*), and another student suggests adding commas to the clause, which leads to a discussion about whether the clause is restrictive or nonrestrictive. It is a student who finally resolves the LRE correctly. Eventually, the resulting sentence is:

> Mister Wilson, who is a famous artist, bought this house in Miami two years ago.

Student C8, who was considered below-level in language proficiency at pretest, started his independent posttest thus:

> Mr. Colson, who is a famous agent work for Sheild, bought the house near the Sunny beach in LA two years ago.

The similarity in sentence structure is striking, but the content is clearly original (the owner turns out to be the leader of a ring of superheroes, who sometimes visit the house). The writer has learned or remembered to use *who* and insert commas to make the clause nonrestrictive, although he misses the second relative clause ("*who* work[s] for Shield") and makes errors in punctuation later in the article. This is typical of the intermediate level when students are acquiring complex grammar at the threshold of

their ability. Mastery of relative clauses would not be expected in less than two weeks of instruction and practice.

Therefore, it is even more impressive that the same student, C8, had not attempted any relative clauses at pretest, preferring to write simple sentences with little of the cohesion which would be improved by relative clauses:

> Fistly, I want to write about Man Owner Manulle. He is a good guy. He is a boss of a bar in Main St. We alway call him rich man. However, he is good at Communicate with us, we talk about history, sports, everything. That really helpful for improve my ability of English. […]
>
> Secondly, the woman owner Iris. She is good at cooking. She always cooking some food for us. I really like it. […]

At posttest, the same student attempts seven relative clauses, four of which are considered correct and one half right (see Appendix P for the coding scheme). All the relative clauses are used to add supporting descriptive detail, which reinforces the claim that the genre-based pedagogy as a whole presents students with meaningful contexts in which to practice their developing language skills.

After the exclusions discussed above and in Chapter 3, only a small number of LREs remain that are considered evidence of additional transfer; their grammatical targets are summarized in Table 35. For example, in the superhero text, C8, the writer used four language elements that were the target of LREs: *so* as a conjunction, punctuating compound sentences with a comma, the transitive use of *enter* (rather than *enter into*), and an exclamation point to indicate enthusiasm at the end of the text. In addition, the student attempted to use the phrase *away from*, the focus of an LRE in the Joint Construction, but did so incorrectly ("the house only far away from Hollywood two miles"), showing perhaps partial uptake of a new structure.

As predicted by the theoretical ZPD, students appear to have internalized language that was at or just above their linguistic threshold, so for example, the grammar elements that are putatively transferred by the on-level student E6 are somewhat more complex than those seen from the lower-proficiency C8. In posttest E6, the writer uses the correct preposition with the verb *sit* ("sit *on* white and black soft sofa"); the demonstrative pronoun *this* in lieu of an article ("this pretty house"); the structure *something is good to do something* ("this is also a good choice to invest [in]"); and two nonfinite (gerund) clauses (once correctly, "going upstair[s]," and once as a sentence fragment: "walking through three meters stair to come to house's door"). These nonfinite clauses are especially noteworthy since the writer employs them as in the collaborative text as transition moves between stages of the description. Here is the associated LRE from the Joint Construction:

> T: We could say something about going up the staircase the first thing you'd see would be the master bedroom.
>
> S: Entering the second floor
>
> T: Good, I like the gerund there. Entering the second floor (E265-267)

In fact, four of the seven students in this class used nonfinite clauses in their posttests, showing that it was not only the student who originally proposed the text who subsequently used the structure. As with ideational and lexical transfer, there are signs that the negotiation led to internalization of language and original, albeit sometimes flawed, utterances.

Table 35 Language Elements in the Joint Constructions

Language Element	Examples
Adverb	Conveniently
Article or determiner	Another vs. the other, this
Clause structure	When +-*ing*, enough for someone to do something, let someone do something, ready for/to
Connector or conjunction	So, however, because, when, then
Idiomatic expression or formulaic phrase	A great deal, in his fifties, on the left side, it's worth mentioning
Modal verb	You can see, you can enter
Morphology	Green*ish*-blue
Noun phrase	A 100-inch screen
Passive voice	Are separated by
Possessive	Their, the house's
Preposition	Beyond the kitchen, in a line, go through a door, on the opposite side of
Pronoun	It (to substitute for house), them (to substitute for names)
Punctuation	Commas, hyphens, exclamation point
Quantifier	A lot of
Sentence structure	Using part of the house as subject, fronting time (adverb) clause
Tense	Future

Transfer Analysis: Summary

The results of this analysis support the hypothesis that transfer does indeed occur between Joint Construction and subsequent independent writing. While other explanations, including prior knowledge, cannot be ruled out, there is consistent evidence that substantial amounts of content, vocabulary, and grammar from the collaborative writing occur in students' writing, although individual differences clearly exist in the type and number of elements transferred. The reasons for these differences may relate to students' language proficiency, with students who are already stretched linguistically struggling to retain so much new information. They may also reflect the degree of attention paid during the Joint Construction. Although the level of participation is not always evident in the videos (the whole class cannot be seen in the frame often) and is not a measure in this study, comments by teachers make it clear that in some classes, only a portion of the class was contributing to the joint text. It remains to be seen whether different outcomes are achieved by students who participate actively in the collaborative writing, those who passively but attentively observe, and those who do not pay attention (Rijlaarsdam, Braaksma, Couzijn, Janssen, & Raedts, 2008).[5]

Summary of Qualitative Results

The qualitative analysis of the structure, dynamics, and foci of Joint Construction reveals some of the mechanisms by which the quantitative differences between the treatment and control groups may have occurred as well as benefits too subtle to be detected by the statistical measures. Teachers engaged in complex and shifting patterns of scaffolding, with attention frequently drawn to linguistic form. They made the process of writing a featured house article visible and negotiated each

stage with the students. They insisted on using a range of descriptive adjectives, avoiding repetition, and supporting observations with details. Transfer can be traced in terms of ideational content, genre knowledge, and linguistic form.

This analysis of the transcripts also points to systematic differences among Joint Constructions, which were discovered quantitatively and explained qualitatively. Further research is needed to make more confident recommendations to teachers, but there is some evidence that a balanced, co-participatory approach has the greatest potential to both open a dialogic space for text negotiation and provide explicit, timely instruction in genre, language, and writing strategies.

ENDNOTES

[1] For clarity, *phase* is used to describe the purpose of a segment of transcript, while stage used for the function of each rhetorically distinct segment of the written genre. This differs from the use of phase in more recent work in SFL (Macnaught et al., 2013). Phases in SFL research are capitalized by convention.

[2] The eighth transcript, Section G, was not coded since it consists of the teacher's retrospective recorded immediately after the class due to a technical fault on the camera.

[3] In the recordings, the teachers use the metalinguistic term *adjective clause* for *relative clause*, in line with their grammar textbook.

[4] The 2,000 figure is important because a long-standing principle in ESL instruction has been the importance of learning the 2,000 word families in the General Service List, or GSL (West, 1953), which typically accounts for 80-85% of the words in texts across many registers including academic writing (Coxhead, 2000). The GSL is somewhat outdated, so the version used for this analysis (Cobb, 2015) is derived from a combination of the British National Corpus and the massive Corpus on Contemporary American English (Davies, 2016). ELI students aiming at university study in the United States would ideally be familiar with at least the first 2,000 word families before starting English for Academic Purposes classes soon after Level IV.

[5] A further issue is resistance to the writing task. The most puzzling posttest in the corpus is H3, a "hiding game" between four friends in which the owner of the house is "the 'Tom' to catch 'Jerrys.'" A narrative ensues, following the characters around the house as Kathy hides in an unlocked sports car and Robbie finds a "trash box" in the garage. Ken, meanwhile, is caught while admiring the "greatful lake view" from an upstairs bedroom. Kathy, too, is discovered, but Robbie wins the game ("Robbie is a talent"). The student was present in class for the Deconstruction and Joint Construction classes. The teacher later reported that he had told her he just did not want to write in the assigned genre. Interestingly, raters—who were told not to consider genre—consistently scored this paper highly (4.5) because it does in fact provide a detailed and cohesive description of the house. This degree of "genre innovation" (Tardy, 2016) is unusual in ESL students, and may indicate a playfulness of language or a somewhat cynical realization that the task was a pretext for descriptive writing and not especially high-stakes in itself.

Chapter 6

CONCLUSIONS

The purpose of this mixed-methods, quasi-experimental study was to investigate the unique contribution of whole-class, teacher-led collaborative writing (Joint Construction) to intermediate-level adult ESL students' independent writing in the context of genre-based pedagogy. The research questions are:

1. Is students' descriptive writing different in genre completion, descriptive quality, complexity, and/or length after participating in Joint Construction within the Teaching/Learning Cycle compared to genre-based instruction comprising Deconstruction of models alone?
2. What are the dynamics of the scaffolding that occurs during Joint Construction?
3. What elements of the Joint Construction and the collaboratively written text are taken up in students' subsequent independent writing?

The previous chapters have presented and discussed results for the quantitative and qualitative strands and merged the results to discuss the impact of Joint Construction on students' independent writing. This chapter summarizes the key findings in response to the three research questions, discusses limitations with the study, and suggests implications for pedagogy and research.

Research Question 1

Students in the treatment condition were significantly more likely to instantiate the target genre than those in the control condition ($p < .001$). They also used a

significantly broader range of descriptive adjective types ($p < .05$), and the difference in lexical variety, as measured by Mean Length of Textual Density (MLTD), approached significance ($p = .08$). No other quantitative measures (descriptive quality, length, or grammatical complexity) reached the level of statistical significance. There was evidence, however, that some of the effects, if present, were too small to be detected, and observed power often fell below the predicted .80 level (e.g., .417 for MLTD).

The results are somewhat consistent with previous research into the TLC. For example, both Chandrasegaran (2012) and Yasuda (2011, 2015) reported benefits of genre-based pedagogy for increasing genre awareness; the present study extends that result because it uses a controlled quasi-experimental study to pinpoint the Joint Construction stage as making a unique contribution to students' genre acquisition. The effects on lexical diversity are supported by qualitative research into the TLC, which has shown that students adopt more scientific or specific word choices following genre instruction (e.g., de Oliveira & Lan, 2014). Grammatical complexity, particularly the use of relative clauses, increased from pre- to posttest, but there was no difference between the Joint Construction and control conditions. Yasuda (2015) also noted increases in targeted grammatical features from pre- to posttest, although the cause for those changes cannot be determined as her study lacked a control or random assignment. A number of other studies have observed increased complexity in students' writing after instruction in the TLC (Achugar & Carpenter, 2014; Brisk & De Rosa, 2014; Ho, 2009; Mahboob et al., 2011). In this study, the pre- to posttest increases were not attributable to the Joint Construction stage, and although there was no business-as-usual control, they add to a growing body of non-experimental

literature which supports the use of the TLC to expand L2 writers' linguistic resources. Larger samples and longitudinal studies are needed to determine whether Joint Construction makes an additional, unique contribution to students' grammatical complexity.

Overall, it can be said that, for these intermediate-level adult students writing in an IEP context and in one descriptive genre, participating in Joint Construction benefited one important aspect of quality, namely the ability to independently write a text with the elements expected of the genre. Even though both conditions attempted to reinforce the genre stages, models alone were insufficient for about a third of the control students. The difference is especially striking among students judged to be at the expected linguistic proficiency for the class: almost all of those students in the treatment condition instantiated the target genre compared to two-thirds of the control students.

The qualitative data offer a theoretically sound explanation for this advantage. Compared to reading an extra model, Joint Construction is a highly dynamic activity which elicits and pushes students' language and genre knowledge, providing "guidance through interaction in the context of shared experience" (Martin, 2009, p. 15). Students at or above the level of the class were ready to stretch their linguistic threshold as the negotiations occurred within their putative ZPD. This is supported by SLA research which posits that language learning occurs when, among other factors, the input is "comprehensible," that is a little above the student's level, but not too far (see Pica, 1994 for a review). This dissertation also provides empirical support for theoretical claims about the contribution of Joint Construction to genre learning (e.g., Rose & Martin, 2012). Models, while useful, are finished products. Students can be

guided to analyze them interactively, but this appears to be less effective (in some respects and with these students) than the live joint construction of a good-quality text.

Research Question 2

The second research question explores the dynamics of the Joint Construction lessons themselves. Prior studies into this stage in the Teaching/Learning Cycle have rarely included more than one instance of the task or have used different lessons that are not comparable or in which the researcher was the classroom teacher (de Oliveira & Lan, 2014; Dreyfus & Macnaught, 2013; Dreyfus et al., 2008; Humphrey & Macnaught, 2011). This is the first study to investigate Joint Construction using a robust quasi-experimental method in which multiple teachers conducted the collaborative writing task with their students using the same materials, independently of the researcher.

Transcript analyses revealed both commonalities and differences among the teachers' implementation of Joint Construction. Broadly, they followed the anticipated phases of Bridging, Text Negotiation, and Review (Dreyfus et al., 2008). However, they exploited the affordance of recursiveness to different degrees. Within the Text Negotiation phases, teachers employed a similar range of scaffolding techniques, but used them to different extents, resulting in—or perhaps partly from—different patterns of student participation. It is theorized that the contingent scaffolding provided during Joint Construction can be plotted in quadrants formed by two axes, inspired by Storch (2002): teacher-student control and explicit-implicit focus on form. By examining the distribution of moves among these quadrants, five possible prototype Joint Constructions were inferred, four of which could be identified from the data.

Due to limitations of the sample (the size of some classes and the number of sections available), it was not clear whether one or more prototypes were more effective than the others in terms of student outcomes. The quantitative results suggest that class-level effects may be operating, at least for some measures. However, I speculate that those Joint Constructions which gave equal or greater attention to student contributions over teacher control and explicit focus on form over content have the greatest potential. It is these lessons that best fulfill the characteristics of scaffolding (Wood et al., 1976): teachers enlist students' interest, break the task into manageable stages, provide support so that students can write at their linguistic threshold, make critical features of the genre salient, provide text when needed to reduce frustration, and model effective solutions to the task of writing in the target genre.

While the classroom dynamic can, as predicted, be most readily classified as expert/novice (Storch, 2002), some of the teachers created conditions in which students provided "collective scaffolding" (Donato, 1994) for one another. All teachers attempted to use the students' ideas and language, albeit to different extents. This allows the kind of shifting expertise reported in other studies of collaborative writing (e.g., Daiute & Dalton, 1993) but with less risk of the interaction devolving into one of Storch's non-collaborative orientations, which have fewer positive impacts on writers (Dale 1994a, b; Watanabe & Swain, 2007). Even when students volunteered less text, teachers continued to elicit, recast, and appropriate their words to complete the task.

Perhaps the most interesting answer to this research question, though, is that Joint Construction facilitates and even encourages a wide range of pedagogical

interactions within the same lesson. There are opportunities for think-aloud modeling, guided writing, metalinguistic asides, cued elicitation, traditional initiation-response-evaluation sequences, "languaging" (Swain, 2006), vocabulary building, and cognitive strategy instruction. Even with a minimal amount of training—one workshop, one practice activity in class, and one individual debrief with me—all teachers were able to exploit the full range of scaffolding techniques, and students responded in kind by contributing text and discussing the language and genre. There was less resistance from teachers than has previously been reported with SFL interventions (Brisk & Zisselberger, 2010; Daniello, 2014; Walsh, 2008), perhaps because the unit was designed to fit easily into the regular curriculum or because SFL metalanguage was gently introduced and only at the level of rhetorical structure not grammatical terminology. The full impact of the interactions may not become evident in a single round of the TLC, but these results suggest that Joint Construction is a valuable and readily accessible tool for writing teachers.

Research Question 3

The final question concerns what students specifically learned from participating in Joint Construction. No comparative claim is made here between the treatment and control conditions; instead, the focus is on whether the scaffolding and negotiation that occurred can be traced into students' subsequent writing. Three areas of transfer were considered: ideational elements, lexical items, and grammatical structures.

The process of writing the collaborative text required teachers and students to focus in great detail on the staging and content of the featured house article. Consequently, treatment classes consistently negotiated a more nuanced structure for

the genre than was presented in the modeling materials. This may help explain why these students were more likely to instantiate the target genre than those in the control classes. On average, about half the ideational elements which were discussed appeared in students' posttests. This finding affirms previous research that detected a transfer effect for content and task completion from collaborative writing to subsequent independent writing (e.g., Daiute, 1986; O'Donnell et al., 1986; Shehadeh, 2011). Although the present study did not find an overall effect on quality as Bacha (2010) and Shehadeh (2011) did, it was also designed more rigorously with a strong control condition and random assignment of sections.

Close reading of a stratified sample of writing suggests that students with lower linguistic proficiency may have struggled to adopt many of the content elements, but that the more they used, the more effective their texts were. Meanwhile, higher proficiency students not only transferred but also actively appropriated aspects of the jointly constructed text, sometimes producing detailed and even creative descriptions. Quantitative comparisons of genre usage between low- mid-, and high-proficiency students support this analysis. Taken together, these results suggest that additional support may be needed to help weaker students understand how to connect the collaborative writing experience to their own writing; meanwhile, students at least at the expected level of language proficiency appear to be in a strong position to benefit from Joint Construction.

One of the teachers expressed her concern to me by email after the study that students were relying too heavily on the jointly written text, perhaps even attempting to memorize it in order to perform successfully on the following day's graded in-class writing task. Qualitative analysis of the posttests suggests that a small number of

students did indeed draw more on the class text than the independent writing prompt warranted, incorporating features of the beach house that are hard to reconcile with the house used for the posttest. Some teachers raised this issue explicitly in their Joint Constructions, reminding students to use language from the models to inspire their writing without copying directly. The overwhelming evidence, though, is that ideational elements from the Joint Construction were used for the students' own purposes in their individual writing. For instance, students incorporated the ideas in different rooms and modified the language to fit their needs and proficiency. More importantly, the textual analysis identified instances of students transferring functions from the collaborative writing. For instance, when teachers emphasized the importance of providing reasons for special features of the house, some students were able to apply this writing strategy to the features of a different house. Further research is needed to understand why some students exploited this affordance while others did not, and whether the same finding would be true in higher stakes academic genres. The potential, however, is encouraging.

The results for linguistic transfer from the qualitative analysis mirror and support the quantitative results: there was greater lexical than grammatical uptake. The lack of measurable impact on grammar is not surprising given the duration of the intervention and the level of the students. Collaborative writing has also not been found to impact the complexity of student writing in other research (Fernández Dobao, 2014; Wigglesworth & Storch, 2012). Expanding clausal resources is a complex cognitive task, which is unlikely to occur in just a few days. However, there is compelling evidence in these data that teachers found opportunities to discuss a wide range of grammar during the Joint Construction and that students in both conditions

were able to apply the target grammar structure of the unit—relative clauses—to their independent writing in abundance, especially by comparison to their pretests.

In contrast, vocabulary from the Joint Construction appeared frequently in students' posttest writing. At least one other study detected an effect for collaborative writing on vocabulary but not grammatical range or accuracy (Shehadeh, 2011). It is impossible to know how many of these words were newly learned, activated from receptive knowledge, or already known to each student. However, measuring language learning was not the purpose of this study. What is clear is that students in the treatment classes incorporated a range of vocabulary from the Joint Construction, particularly descriptive adjectives, which may help explain the near-significant difference in lexical diversity between the treatment and control conditions and the significant benefit for adjective use. Here, too, is an advantage of the mixed-methods analytical strategy since the quantitative results by themselves are less compelling without the qualitative evidence that shows the extent to which descriptive vocabulary was a focus of Joint Construction and the specific words that emerged in students' writing following (if not necessarily due to) negotiation among teachers and students in the collaborative writing activity.

Ultimately, this study suggests that learning did occur for these students in terms of genre knowledge and the ability to write detailed house descriptions using a range of appropriate language resources. Quantitative data do not strongly support the hypothesis that students learned more from the TLC when it included Joint Construction than from Deconstruction (modeling) alone. However, by mixing the quantitative with the qualitative strands of data, it can be seen that Joint Construction

has both theoretical and practical advantages that may not have been apparent from comparing average performance across a somewhat heterogeneous student sample.

Limitations

Two aspects of the research design give rise to important limitations in the claims that can be made about the results: the classroom environment and the choice of mixed methods. In terms of the use of intact classrooms, the major limitation with the design is the nesting effect, since students within any particular classroom are affected by their teacher and are thus not truly independent. Significant differences among sections were found for posttest quality in the treatment condition (but not in the control), which may be partially attributable to the different styles of Joint Construction that teachers conducted, as discussed in Chapter 5. The mixed-methods approach somewhat counters the nesting effect in treatment sections, since the qualitative analysis of the transcripts provides a framework for understanding different outcomes. Other class and homework activities as well as classroom dynamics and teacher effectiveness may cause variance among sections, but since this study took place at the start of the session and teachers mostly followed the prescribed lesson plans, the impact of any deviations is likely to have been minimal.

As a quasi-experimental study with random assignment at the level of class section, the design is weaker than a full experimental design. However, random assignment at the participant level is not possible in the real-world setting of the ELI (and indeed most similar educational settings), where students are placed in classes according to their level by the program administration using a number of criteria that are incompatible with random assignment. Analyses of the students' demographics and their pretest writing revealed no statistically significant differences between the

groups. Other differences may still exist, and so conclusions from this study may not generalize to different contexts.

An unanticipated internal validity threat emerged from the possibility of contamination between the treatment and control classes. The actual intervention is a well-contained activity, and teachers followed the lesson plans so that the pretest, intervention, and posttest took place on the same days. Therefore, the chance of interactions between students from different sections affecting the outcomes was extremely slim, and no other collaborative writing was conducted during the study period. However, since fewer sections of Level IV were available in Session I than originally estimated, the study was repeated in the following eight-week session in order to achieve adequate power. The teachers remained in their assigned conditions, and no control teachers spontaneously introduced Joint Construction to the house unit to the best of my knowledge based on the fidelity checks. However, at least nine students from Session I repeated the level and were placed in treatment (n = 6) and control (n = 3) classes (there may be other repeating students who did not give consent in one or both sessions). Although their writing was excluded from analysis in the second session, they would have participated in the Joint Construction and all the class discussions throughout the unit, which may have slightly influenced the class as a whole. Overall, any impacts on other students are likely to have been small at most.

It also worth noting that some students had taken Level IV before Session I, where it is possible that they were exposed to a form of Joint Construction (some teachers reported having used similar activities in the past). The actual number was very small: 11 in the treatment and eight in the control sections. There is no theoretical reason to believe that prior experience with the task would greatly affect students'

performance in either the control or treatment conditions. While it is true that these students had already studied descriptive writing at this level, the threat to internal validity is small. First, these students repeated the level because they did not reach the course learning outcomes in the previous session, so they did not have an advantage in terms of proficiency or writing ability. Second, teachers did not have access to this unit and the featured house assignment before the study. Therefore, it is highly unlikely that any participants had prior instruction in this specific genre.

One of the challenges with assessing both this threat and the effectiveness of Joint Construction emerged while analyzing the videos: it was not possible for both practical and ethical reasons under the terms of the consent agreement (Appendix A) to match students' voices to their writing. Therefore, I cannot confidently determine which students contributed the most, which were silent, and whether participation in the classroom activity impacted subsequent writing performance. It was likewise not always possible to determine whether particular lexical or grammatical elements that were suggested by one student were taken up by others, although as discussed in Chapter 5, sometimes multiple students used a word or structure suggested by a classmate.

The most serious logistical limitation was the duration of the investigation. A three-day instructional sequence with single episodes of Deconstruction, Joint Construction, and Independent Construction was unlikely to produce a measurable improvement in many aspects of students' writing. The same concern has been raised in other research into collaborative writing (e.g., O'Donnell et al., 1987). Ideally, in the TLC, teachers are expected to continue with each stage until mastery is observed before moving on, so that students do not write independently until they are fully

prepared (Rose & Martin, 2012; Rothery, 1996). The arrows in the cycle (Figure 1) are double-headed to show that teachers may need to return to model analysis after collaborative writing if students need more practice. The same principle of flexible timing in each stage of teaching also applies in cognitive writing strategy instruction pedagogies (Harris & Graham, 1996). While students would probably benefit from multiple iterations of Deconstruction and Joint Construction, this would be unfeasible in the teaching context. Like most intensive English programs, ELI classes have a wide range of curricular objectives that teachers are expected to address in eight weeks. In addition, the longer the study, the greater the variation between classrooms due to teacher and student effects, making a well-controlled experiment virtually impossible. According to Onwuegbuzie and Johnson (2006), mixed-method research should "search for workable solutions through the practice of research" (p. 54), which will be of relevance to practitioners in their own local contexts. Therefore, the pace of this study was highly realistic in the context of the ELI and similar programs even though it is less than optimal for either research or pedagogy.

At a methodological level, there are threats to validity inherent in the choice of the mixed-methods paradigm. While the incommensurability argument—that qualitative and quantitative paradigms are so fundamentally different that any comingling of designs is necessarily invalid—has been largely discredited (Creswell & Plano Clark, 2011; R. B. Johnson & Onwuegbuzie, 2004), the mixing of methods at all levels from design through data collection to analysis and interpretation presents a wider range of challenges than monomethod research. Since validity and reliability are contested terms between qualitative and quantitative researchers, Onwuegbuzie and Johnson (2006) propose the alternate nomenclature of "legitimation" (p. 55) and

identify nine potential threats that are specific to mixed-methods research. The presence of these threats to legitimation weaken the "meta-inferences" that can be drawn from the integration of multiple data strands. Four types of legitimation are particularly relevant to this study.

"Sample integration legitimation" (Onwuegbuzie & Johnson, 2006, p. 56) warns researchers about the risk of generalizing from a smaller qualitative sample of data to the larger quantitative sample from which it is drawn and then to wider populations. This was mitigated in the present study by analyzing the entire body of qualitative data (transcripts and student writing) for some measures, while selectively sampling posttests according to quantitative findings. Furthermore, prototype theory was used to identify Joint Construction events for further analysis with the purpose of developing a theoretical framework for future research, rather than generalizing to other instances of the activity.

"Weakness minimization legitimation" (Onwuegbuzie & Johnson, 2006, p. 58) refers to the ability of mixed-methods research to balance the limitations of one type of analysis with the benefits of another. This was a factor since the current study was underpowered to detect statistically significant differences with small effect sizes, and it is likely that many of the differences would have been small for the reasons discussed above. However, the qualitative analysis compensated to some extent by showing evidence of uptake and transfer from the Joint Construction; not only did students benefit in ways that were not always evident in the quantitative measures, but they also appeared to respond differently based on their initial language proficiency, which raises important questions for further research. Conversely, one of weaknesses with much of the qualitative, process-focused research into CW has been its inability

to show whether the experience of participating in the collaborative activity leads to measurable gains in writing and/or language development. By merging a qualitative analysis of the Joint Construction videos with a mixed-method analysis of student writing, it was possible to make new, albeit qualified, meta-inferences about the activity, namely that it particularly benefits students' genre knowledge and aspects of lexical diversity.

"Conversion legitimation" (Onwuegbuzie & Johnson, 2006, p. 58) encompasses questions about reliability, especially when quantitizing qualitative data. Reliability was discussed for all measures in Chapter 3, aspects of which limit the quality of the inferences that can be drawn from this study. Interrater reliability for the descriptive quality measure was hard to attain and weaker than desirable. Coding of the genre completion, pretest quality, teacher scaffolds, student contributions, and LREs was verified by asking independent raters to code 20% samples. While agreement was high, the possibility of researcher bias or error cannot be fully eliminated. Genre completion requires little more than identifying the elements of the genre, and thus this measure is considered reliable. The categories of scaffolding and student contribution were not analyzed statistically, but rather discussed qualitatively using two theoretically-grounded frameworks. The transfer measures were not verified by a second rater, but since they were only conducted on the treatment condition and were checklists with little scope for interpretation, there is minimal possibility of researcher bias. The mixing of methods further legitimates the conversion by allowing the quantitative analyses, the transcripts, and the evidence of transfer to be merged, confirming results that would otherwise have limited individual reliability.

Finally, "paradigmatic mixing legitimation" (Onwuegbuzie & Johnson, 2006, p. 59) raises the interesting question of the effect of combining methodologies, epistemologies, and ontologies that are very different and even competing. There are important differences in the approaches which are integrated in this study. For instance, scholars working in the SFL genre tradition view language as a property of the discourse community and not the individual (Schleppegrell, 2004). Therefore, the focus of their analysis is on the ways students utilize linguistic resources to realize genres in texts, and the methods tend to be qualitative with an emphasis on case studies rather than group averages. As Rose and Martin (2012) stress, the Sydney School's goal has always been to increase equality of access to schooling. Hence, scholars in this tradition do not typically engage in studies that involve control groups on ethical and practical grounds. However, as discussed in Chapter 2, this makes generalization highly problematic and may partially explain the reluctance of North American scholars, practitioners, and materials writers to embrace pedagogies like the Teaching/Learning Cycle.

On the other hand, many SLA and cognitively-oriented literacy researchers see writing not (only) as the manifestation of genre knowledge and control of communal linguistic resources, but rather as evidence of cognitive activity and the individual's language development. Since differences between students' performance are viewed as a consequence of individual differences that are subject to change through effective interventions, it is logical to conduct experimental and quasi-experimental studies, preferably with large numbers of participants. This is one of the tenets of the cognitive approach with which sociocultural scholars take issue: the assumption of "aggregatism," which holds that mean averages of groups—the underlying principle of

statistical analysis—are meaningful (Atkinson, 2011, p. 5). Consequently, individual case analyses hold less weight in cognitive approaches to literacy and second-language writing. Quantitative studies, however, can also be criticized for treating decontextualizing writing and missing connections between the interactive dynamics of the classroom and students' written texts.

Thus, an ontological difference in the understanding of the relationship between writing and the individual gives rise to epistemological differences in the types of evidence that are accepted as demonstrations of the effectiveness of teaching techniques, causing researchers to adopt different methodologies. This mixed-method design, therefore, raises the possibility of conflict between ways of analyzing and interpreting students' writing, especially in the use of aggregates alongside analyses of individual instances of Joint Construction and student writing, with the risk that the quantitative analyses will be viewed as largely nonsignificant by some, and the qualitative analyses insufficiently in depth for by others.

Perhaps, though, this tension can result in a dialogue, even a dialectic, between two powerful approaches to teaching and researching writing. Joint Construction and its cognitive strategy counterpart, after all, are remarkably similar activities embedded in pedagogies that emerged for much the same reason: to close the performance gap that is created when writing is taught in an expressivist, non-interventionist approach. Unlike "invisible pedagogies" (cf. Rose and Martin, 2012, p. 318) which make tacit assumptions that students already possess and control the resources they need to produce "the language of schooling" (Schleppegrell, 2004), explicit, teacher-guided writing instruction helps students develop the tools they need for success. Writing is both a cognitive task in which the individual must marshal strategic, generic, and

linguistic knowledge to solve a problem and also a social act of communication in a cultural context. This is never more evident than in whole-class collaborative writing, where thinking is made visible and interaction generates text. This study was conducted with an attitude of "paradigmatic pluralism" and "methodological eclecticism," two of the "core" characteristics of mixed-methods research (Teddlie & Tashakkori, 2012, p. 775) in an attempt to satisfy different scholarly traditions. Martin (2014) has complained that much of the research conducted in other schools of genre theory is unconvincing to educational linguists because it does not present actual student texts, a criticism that is sometimes appropriate for quantitative, experimental studies in literacy. Meanwhile, literacy scholars may reasonably be frustrated by the lack of experimental, comparative, and quantitative data showing the purported effectiveness of the Sydney School's genre-based writing pedagogy. Therefore, it is hoped that this study, which presents and analyzes both student texts and statistical measurements, presents a convincing and legitimated case for the role of Joint Construction in particular, and genre-based instruction more broadly, in the ESL writing classroom.

Implications for Research

The mixed-methods design of this study was successful in that it offers insights into both the process and the product of collaborative writing, which are rarely considered together. This has allowed me to suggest reasons for quantitative results, detect patterns in the qualitative data, and explore the research questions from multiple angles, even when the statistical tests were not significant. Epistemologically, this design recognizes that writing is both the product of individual cognition and thus amenable to the tools of quantitative paradigms, and also the outcome of socially

embedded interactions which must be analyzed in order to understand the trajectory of students' writing and language development.

There are a number of directions which future mixed-method research into collaborative writing could take. A similar methodology could be used to compare pair and whole-class collaborative writing. This may reveal differences in the scaffolding patterns used among peers compared to those provided by the teacher. It is possible that both types of collaboration have equal impact on students' subsequent independent writing, but if differences are detected, then there would be important implications for pedagogy. In addition, the qualitative strand would detect whether the two activities affect different aspects of students' writing and language use.

The four quadrants of scaffolding and the associated prototypes of Joint Construction warrant further research. More examples of Joint Construction with different student populations would confirm, refute, or extend this proposed framework. Since it is not yet known whether some prototypes lead to better student learning outcomes than others, experimental research might be conducted, in which teachers deliberately manipulate their scaffolding in order to approximate different prototypes. This may allow tentative connections to be drawn between the types of scaffolding and the strength of the intervention.

Two data sets were collected but not analyzed in this dissertation, teacher and student attitudes. More information is needed, including student interviews and retrospective verbal protocols in order to confirm teachers' intentions and students' cognitive processes during the Joint Construction and subsequent writing. Such data might confirm the evidence of transfer inferred in this study.

Finally, this dissertation contributes to research in second language literacy by proposing several new analytic tools: the quadrants of scaffolding along the axes of control and attention to form; genre completion as a quantitized measure of quality; and techniques for tracing ideational, lexical, and grammatical transfer from collaborative writing to independent writing. In doing so, I have demonstrated that quantitative and mixed-methods research designs are viable and useful within an SFL framework, which has been hitherto lacking in the literature. My analysis further confirms and extends previous qualitative research into Joint Construction by combining existing phase analyses with taxonomies of scaffolding as well a new classification of student contributions to the joint writing.

Implications for Pedagogy

This study supports the use of Joint Construction as part of the Teaching/Learning Cycle. The collaborative writing activity is at least as good as, and in some important aspects, superior to modeling alone in developing students' descriptive writing skills at this level. Even with relatively little training, all teachers were able to lead classes that successfully produced the target genre and generated large amounts of scaffolding and wide-ranging discussions around writing and language use.

Not incidentally, I have also provided further support for the adoption of genre-based writing curricula and the TLC in particular. There is evidence in this study that students learn to write at least somewhat effective descriptions through genre analysis even in the context of a traditional mode-based L2 writing curriculum. Furthermore, students in the treatment condition were significantly more likely to instantiate the target genre. If this result applies to other genres and contexts, then

Joint Construction as part of the broader TLC can be used to minimize genre confusion in higher-stakes tasks. The interactions that occur strongly suggest that Joint Construction is an engaging and productive use of class time that draws students' attention to a wide range of language resources and writing techniques.

The four quadrants of scaffolding serve as a useful heuristic for teaching. There is theoretical and some limited empirical evidence to suggest that a balance among the quadrants is desirable. That is, students should be encouraged to take ownership of the text, yet teachers should also shape the text in order to realize the genre and explore its exigencies and affordances. As in any writing task, the meaning of the text is paramount, but both teachers and students can create opportunities to focus on form, both explicitly and implicitly. While not all the vocabulary and language that are negotiated will be taken up immediately, language acquisition is a long-term process, and there is good reason to believe that such episodes of languaging eventually trigger and consolidate learning.

An area in which Joint Construction could be fruitfully developed is cognitive strategy instruction. By making the writing process visible and collaborative, the task is an ideal space to model and reinforce self-regulated writing strategies. For example, one teacher frequently verbalized and explained his decision to stop and re-read the text in order to decide whether to add more to the paragraph or move on to the next. Teachers could choose one or two strategies to incorporate in the Joint Construction and then ask students to monitor their use of the strategy in subsequent independent writing. As with the suggestions for research, above, here would be an opportunity to draw on both the cognitive (strategy instruction) and sociocultural (genre) approaches to writing instruction, with potential benefits for teaching.

Conclusion

Joint Construction is a complex but exciting classroom activity. The present study is a preliminary attempt to explore the potential of whole-class collaborative writing for language learners. The results support the inclusion of Joint Construction as part of the Teaching-Learning Cycle because of the range of theoretically valuable scaffolding and languaging that occur and the demonstrated benefits to specific aspects of students' posttest writing. One of the teachers ended her lesson clearly pleased with the result: "There, we created a house article." Joint Construction offers a valuable sense of accomplishments as students recognize what they can with help today so that they can write a little better independently tomorrow.

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Appendix A

INSTITUTIONAL REVIEW BOARD APPROVAL

DATE: August 4, 2015

TO: Nigel Caplan

FROM: University of Delaware IRB

STUDY TITLE: [701687-1] The Contributions of Joint Construction to Intermediate-Level ESL

Students' Independent Writing: A Mixed-Methods Analysis

SUBMISSION TYPE: New Project

ACTION: APPROVED

APPROVAL DATE: August 4, 2015

EXPIRATION DATE: August 3, 2016

REVIEW TYPE: Expedited Review

REVIEW CATEGORY: Expedited review category # (7)

Thank you for your submission of New Project materials for this research study. The University of Delaware IRB has APPROVED your submission. This approval is based on an appropriate risk/benefit ratio and a study design wherein the risks have been minimized. All research must be conducted in accordance with this approved submission.

This submission has received Expedited Review based on the applicable federal regulation.

Please remember that informed consent is a process beginning with a description of the study and insurance of participant understanding followed by a signed consent form. Informed consent must continue throughout the study via a dialogue between the researcher and research participant. Federal regulations require each participant receive a copy of the signed consent document.

Please note that any revision to previously approved materials must be approved by this office prior to initiation. Please use the appropriate revision forms for this procedure.

All SERIOUS and UNEXPECTED adverse events must be reported to this office. Please use the appropriate adverse event forms for this procedure. All sponsor reporting requirements should also be followed.

Please report all NON-COMPLIANCE issues or COMPLAINTS regarding this study to this office.

Please note that all research records must be retained for a minimum of three years.

Based on the risks, this project requires Continuing Review by this office on an annual basis. Please use the appropriate renewal forms for this procedure.

Appendix B

TEACHER LETTER OF CONSENT

INFORMED CONSENT TO PARTICIPATE IN RESEARCH

Title: The Contributions of Joint Construction to Intermediate-Level ESL Students' Independent Writing: A Mixed-Methods Study
Principal Investigator: Nigel Caplan, Assistant Professor, UD English Language Institute.

Dear Colleague:

During this session, I am conducting my doctoral dissertation research on the effectiveness of a type of collaborative writing (called Joint Construction) in Level IV RW classes. The purpose of this letter is to invite you to participate by obtaining your informed consent as a participant in the research.

Your participation in the project includes the following activities: implementation of a unit of instruction in your level IV RW course in Session I-2015; participation in the data collection activities described below; and (optionally) participation in a subsequent interview to discuss the unit.

If you agree, I will invite all students in your section of RW IV to participate in the study and collect data from those who provide informed consent. You will need to help me in obtaining some of this data. The following types of data will be collected: Students will write diagnostic essays. After the unit of study, students will write a second paper in the target genre (a description of a house). Both papers will be written in class under test conditions. Please assign at least a small grade for the second essay. The second form of data will be the video-recordings. All teachers will record the first two days of instruction during the unit. Teachers in the treatment condition will also record a practice Joint Construction activity. Finally, I will ask for information on student attendance in class during the unit of study (students who miss any part of the research will be excluded from data analysis). In addition, students will receive an online survey to complete regarding their experience of the unit; your assistance would be appreciated in distributing the survey.

After the unit has been completed, I may invite you to participate in an interview to discuss the unit. Interviews will be audio-recorded and transcribed for analysis.

Your participation in all stages of this research study is completely voluntary. You do not have to take part in this research study and, should you change your mind, you can withdraw from the study at any time without loss or penalty of any kind. Even if you participate, you can refuse to answer particular questions at any time without penalty.

This research study does not put you at risk. Participation in the study does not require you to participate in activities different from those that occur normally in courses, except for the follow-up interview. You may benefit from participating in the study through professional development and implementation of the unit. In addition, you will be making a contribution to the field.

All information that I collect will be kept confidential. Only I will watch and transcribe the videos. Anonymized data will be seen only by myself, my dissertation committee, and other research project staff, all of whom will have completed the appropriate ethics training. Information will be kept in a locked file cabinet and on hard drives with identification codes rather than student and faculty names. Information stored on the computer will be encrypted. I will retain the identifiable records from this study for three years from the end of the project and then destroy them. If you withdraw from the study, I will destroy all information that I have collected about you at that time. Findings from this study will be used in my dissertation and might result in scholarly publications and conference presentations. Neither you nor your students will be identified by name or by other personal data in any oral or written report of the study. Reports of the study may make reference to your individual comments and your instructional activities. However, neither your name nor information that could identify you will be used.

The classroom and interview videos from the research will be used only for transcription and will not be shown to audiences.

If you would like more information or have any questions regarding the study, please contact me or my doctoral advisor, Dr. Charles MacArthur, Professor, School of Education (macarthu@udel.edu). If you have any questions or concerns about your rights as a research participant, you may contact the University of Delaware Institutional Review Board at hsrb-research@udel.edu or (302) 831-2137.

I hope you will participate in this study. To indicate your willingness to participate in this research study, please check the appropriate boxes below, initial both pages of this letter, sign and date the form, and return this entire letter to me. If you choose to participate in the study you will keep the extra copy of this letter for your records.

Thank you,

Nigel Caplan

Assistant Professor, English Language Institute
nacaplan@udel.edu Tel: 831-7419

Your signature on this form means that: 1) you are at least 18 years old; 2) you have read and understand the information given in this form; 3) you have asked any questions you have about the research and the questions have been answered to your satisfaction; and 4) you accept the terms in the form and volunteer to participate in the study. You will be given a copy of this form to keep.

Printed Name of Participant Signature of Participant
Date

Person Obtaining Consent (print) Person Obtaining Consent (sign)
Date

❑ I would like a copy of any published results of the study. (Please provide your email address: _____)

Appendix C

STUDENT LETTER OF CONSENT

Title of Project: The Contributions of Joint Construction to Intermediate-Level ESL Students' Independent Writing: A Pilot Study
Principal Investigator(s): Nigel Caplan, Assistant Professor, UD English Language Institute.
You are being invited to participate in a research study. This consent form tells you about the study including its purpose, what you will be asked to do if you decide to take part, and the risks and benefits of being in the study. Please read the information below and ask any questions you may have before you decide whether or not you agree to participate.

WHAT IS THE PURPOSE OF THIS STUDY?
The purpose of this study is to better understand techniques for teaching ESL writing. This research is part of a doctoral dissertation. You will be one of approximately 40 participants in this study. You are being asked to participate because you are now in a level IV reading/writing class. You will participate in the regular classroom instruction and activities, but I am requesting your permission to collect and analyze your classwork as part of the research.

WHAT WILL YOU BE ASKED TO DO?
As part of this study you will be asked to follow a unit of writing instruction to learn how to do a type of descriptive writing. This is a regular part of the level IV RW curriculum. The study will take place during the next two weeks of this session with your regular teacher. You will write a diagnostic essay. Then, you will learn about descriptive writing, take part in one of two different writing activities, and then write another description under test conditions for a grade. Some of your classes may be video-recorded. Your teacher will give me a copy of your writing and the video recording at the end of the unit. I will not be in the classroom, and I will not use your data until final grades are submitted at the end of this session.

WHAT ARE THE POSSIBLE RISKS AND DISCOMFORTS?
I do not expect you to experience any risks or discomforts as a result of participation in this research. If you do not want to participate, you can sit behind the video camera, and I will not include your comments or writing in the research. I will not see your grades from this or any other assignment.

WHAT ARE THE POTENTIAL BENEFITS?
You may benefit from this research because the materials designed for this study should help you learn how to write good descriptions. This is a learning outcome of

the level IV RW course. The knowledge that we learn from this research may also improve our understanding of the teaching of ESL writing.

HOW WILL CONFIDENTIALITY BE MAINTAINED? WHO MAY KNOW THAT YOU PARTICIPATED IN THIS RESEARCH?

Your information will be confidential. This means that I will know your name, but I will not share it with anyone. I will use a pseudonym (a fake name) for the transcripts and all writing you do. I will keep a separate list with your real names in an encrypted computer file. Your writing will be stored in locked filing cabinets, and the videos will be saved as encrypted computer files. I will keep all records for 3 years after the end of the study. I will then destroy all records with your name, including your handwritten texts and the videos. I will only use the video to transcribe (write out) the discussion. No-one else will see the video.

I will make every effort to keep all research records that identify you confidential. The findings of this research may be presented or published. If this happens, no information that gives your name or any identifying information will be shared. I may report statistics and direct quotes from your video-recordings and writing.

The confidentiality of your records will be protected to the extent permitted by law. Your research records may be viewed by the University of Delaware Institutional Review Board, which is a committee formally designated to approve, monitor, and review biomedical and behavioral research involving humans. Records relating to this research will be kept for at least three years after the research study has been completed.

WILL THERE BE ANY COSTS TO YOU FOR PARTICIPATING IN THIS RESEARCH?

No.

WILL YOU RECEIVE ANY COMPENSATION FOR PARTICIPATION?

No.

DO YOU HAVE TO TAKE PART IN THIS STUDY?

No. Taking part in this research study is entirely voluntary. You do not have to participate in this research. If you choose to take part, you have the right to stop at any time. If you decide not to participate or if you decide to stop taking part in the research at a later date, there will be no penalty or loss of benefits to which you are otherwise entitled. Your decision to stop participation, or not to participate, will not influence current or future relationships with the University of Delaware or the English Language Institute.

As a student, if you decide not to take part in this research, your choice will have no effect on your academic status or your grade in this class or any other class at the ELI or the University of Delaware. However, you must still complete all the lessons and assignments, which are a regular part of this level IV RW course. If at any time you to decide not to participate in this research study, please inform your teacher or contact the researcher at nacaplan@udel.edu.

If you are absent for any part of the research study, your data will not be used.

WHO SHOULD YOU CALL IF YOU HAVE QUESTIONS OR CONCERNS?
If you have any questions about this study, please contact the Principal Investigator, Nigel Caplan at nacaplan@udel.edu or 831-7419. You may also contact my doctoral advisor, Professor Charles Macarthur at macarthu@udel.edu.
If you have any questions or concerns about your rights as a research participant, you may contact the University of Delaware Institutional Review Board at hsrb-research@udel.edu or (302) 831-2137.

Your signature on this form means that: 1) you are at least 18 years old; 2) you have read and understand the information given in this form; 3) you have asked any questions you have about the research and the questions have been answered to your satisfaction; and 4) you accept the terms in the form and volunteer to participate in the study. You will be given a copy of this form to keep.

Printed Name of Participant Signature of Participant
Date

Person Obtaining Consent Person Obtaining Consent
Date

(PRINTED NAME) (SIGNATURE)

Appendix D

INSTRUCTIONAL UNIT

Level IV Reading/Writing

Student Information

Please answer all the questions.

1. Family (last) Name: _____
2. First Name: _____
3. UD ID number: _____
4. Which country are you from? _____
5. What is your first/home language? _____
6. What is your date of birth? _____ (month) ____ (day) _____ (year)
7. What is your gender? Male / Female
8. What is your highest level of education?
    - I have not finished high school
    - I have finished high school
    - I have started an undergraduate (bachelor's) degree in my home country
    - I have finished my undergraduate degree
    - I have finished a graduate (master's or doctoral) degree

9. How many years have you studied English? _____

10. Is this your first session at the ELI? Yes / No

11. Have you taken Level IV Reading/Writing before this session? Yes / No

    a. If yes: how many times (do not include this session)? _____

    b. Did you take Level IV in session I? Yes /No

    c. If yes: who was your teacher? _____

Diagnostic Writing Task

This task will help your teacher understand your level of writing and grammar at the start of the session. It is not a test, and you will not get a grade. Please write as much as possible to show your writing ability.

You have one hour.

Please write in pen on the lined paper provided. Write your name on every piece of paper.

Do not use dictionaries, cell phones, or any other resources.

Describe your room, house, homestay, or apartment here or in your home country, and say why you like it.

Descriptive Writing: Featured Home Article
Analyze the Models

Local newspapers like Delaware's *News Journal* often have articles about houses or apartments that are for sale. These *featured home* articles describe the home in detail. Why do you think people read featured home articles?

Read these two featured home articles and then complete the tasks.

Article 1: Quiet home in a prime location

When Jay Wheeler moved to Newark, Delaware as a young English professor in 1973, he couldn't find the house that he wanted, so he decided to build it. Away from the main roads, he found a hidden location that was still close to the university. During the next four decades, Wheeler and his wife, Sandra, lived in the house on Sunset Road with their two children, who now live in Seattle. The Wheelers both retired last year and are moving to be closer to their grandchildren, so they are finally selling their family home. This charming, peaceful house is ideal for a couple or young family who would like to live in the town but think they are in the country.

The house is on a quiet, tree-lined street just a few blocks from the train station. A large yard with colorful flowers and tidy bushes greets visitors. The path that leads to the front door is made of old gray stones that add to the quaint[1] atmosphere of this rural setting. A small, red birdhouse welcomes feathered visitors, and an old wooden swing invites children to stay and play. A one-car garage with a weathered door is on the right side of the house, and there is just enough space for another car in the narrow driveway.

Inside, the one-story, cream-colored house has hardwood floors and large, bright windows. The front door opens into the cozy living room, which has an original fireplace that is perfect for cold winter evenings. Further down the hallway you find the kitchen with its original 1970s orange countertops. Through the kitchen is the

small dining room, which has a door to the wooden deck. The deck is one of the most striking features of the house because it overlooks the Wheelers' wildflower garden in the back. When you are sitting on the deck enjoying the view, it is easy to forget that you are only minutes away from the noise of downtown Newark.

There are three medium-size bedrooms on the left side of the house. The master bedroom has thick blue carpet and a bathroom with matching blue tiles. The bedroom which used to belong to the two children is smaller, but the hardwood floors are beautiful. There is also a tiny guest room with another stunning view of the garden, which is perfect for outdoor parties in the summer. This delightful house is ready for new owners to make it their home!

(Photo credit: www.thisoldhouse.com)

Article 2: Unique home with a view

Silvia Bell bought her first home in 2007 and expected to live in it for a long time. However, her life took an unexpected turn this year when her marketing firm asked her to open a new office in Chicago. Reluctantly[2], she is selling the unusual but luxurious four-bedroom house that she shares with her husband, who is a stay-at-home dad for their three young girls.

Bell's house backs up to historic Rockwood Park in Wilmington. A tall stone wall hides it from the road, and six mature oak trees at the end of the driveway create a feeling of privacy. From the front, this is clearly not a cookie-cutter[3] two-story house. The oversized yellow wooden door sits inside shining white columns, and multicolored bricks cover the front walls. The original house was built in 1953, but previous owners added a garage on the side that can easily fit two cars and a lot of children's toys. Children will also enjoy the playset in the spacious back yard, which slopes gently down to the fence that separates the property from the park.

The floor plan of the house is unique and includes a library and a three-season room. The library has floor-to-ceiling bookshelves and an antique[4] light fixture that hangs over the center of the room. The three-season room is much more modern. It is a porch with huge windows, and it is heated, so it remains comfortable for most of the year. The first floor also has a spacious family room, a kitchen with all modern

appliances, and a guest bathroom. The house is perfect for entertaining a lot of friends thanks to its airy dining room and comfortable flow.

Upstairs, Bell proudly shows off the enormous master bedroom, which looks out towards the park. From this room, you can walk out onto the wooden deck and enjoy the view while you sip your morning coffee. There is another smaller bedroom that also faces the back of the house and two more bedrooms at the front. All the rooms have new carpets and fresh paint, so they are ready for their next owner! In fact, the person who buys this house can move in and start enjoying this unique, exceptional property right away.

(Photo from and text inspired by: http://www.delawareonline.com/story/life/home-garden/2014/11/26/delaware-spaces-colonial-character-backs-rockwood-park/19552517/)

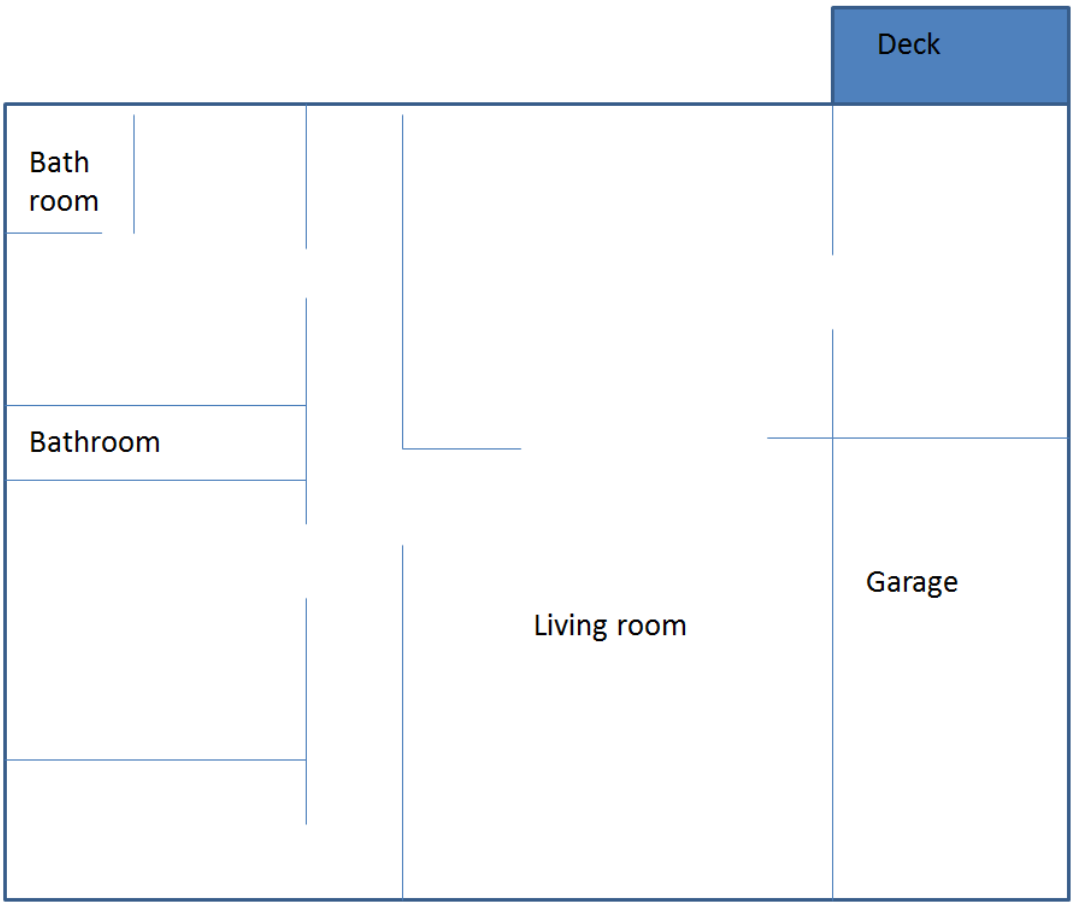
Questions for Discussion

A. Discuss with a partner. Which house has these features, House 1 in Newark, House 2 in Wilmington, or both?

1.	A very large master bedroom	1/ 2 / Both
2.	A one-car garage	1/ 2 / Both
3.	Good space for having visitors	1/ 2 / Both
4.	A total of 4 bedrooms	1/ 2 / Both
5.	A library	1/ 2 / Both
6.	Orange kitchen countertops	1/ 2 / Both
7.	A heated porch	1/ 2 / Both
8.	A blue bathroom	1/ 2 / Both

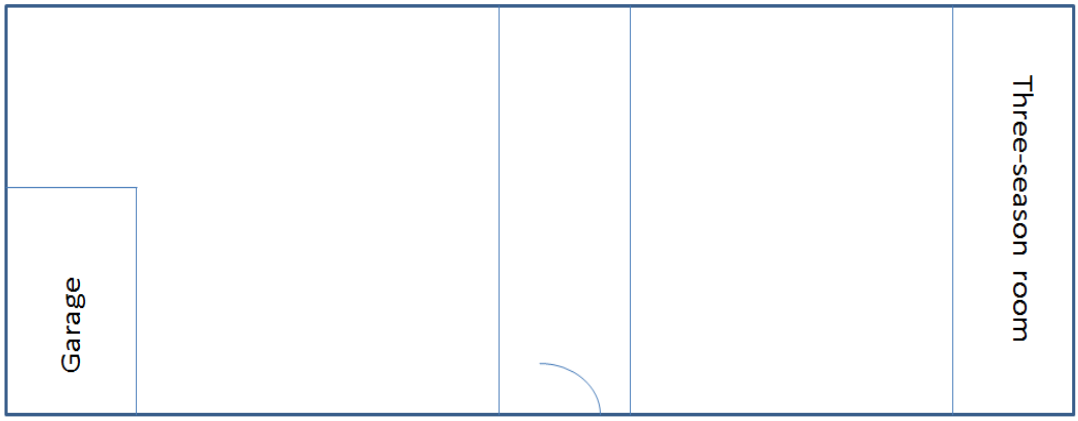
B. Work with a partner. Complete the floor plans of the houses in the articles!

Article 1 (Newark): Label the empty rooms using information from the text.

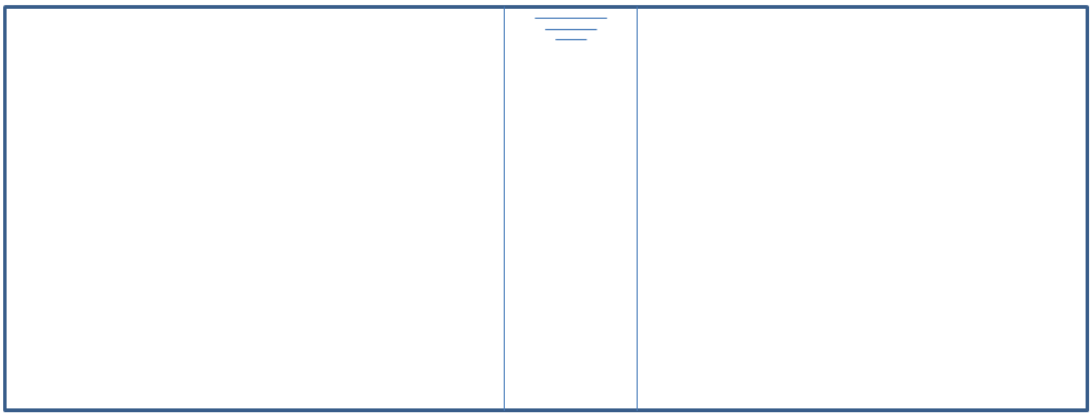

Deck
Bath
room
Bathroom
Garage
Living room

Article 2 (Wilmington): Divide the floor plan into rooms and label them using information from the article. You can put the rooms anywhere, but they must be on the correct floor!

First Floor



Second Floor



C. What information is in each paragraph of the featured home articles?

Paragraph	Article 1 (Newark)	Article 2 (Wilmington)
1		
2		
3		
4		

D. Read the first paragraph of each article again.

1. How is the first paragraph different from the rest of the article? Look at the content and the grammar.

2. Can you find the focus, or main idea, of the article in this paragraph?

E. Read the last sentence of each article again. What is the purpose of this sentence?

F. Work with partner or a group of 3. One partner highlights all the adjectives in Article 1. The other partner(s) highlight(s) all the adjectives in Article 2. Then, discuss these questions and take notes.

1. What types of nouns do the adjectives describe?

2. Do the writers ever use more than one adjective in a noun phrase? Why?

3. Do the writers repeat the same adjectives in one article?

4. Do the adjectives generally have positive, negative, or neutral meanings?

G. Work in a small group. Each student chooses one paragraph and highlights all the adjective clauses. Discuss these questions and take notes.

1. How do the writers use adjective clauses? What nouns do the adjective clauses describe?

2. Why do the writers use commas around some of their adjective clauses?

H. Discuss these questions with your group.

1. Are the descriptions of the houses clear and detailed? Is there any other information you want to know?
2. Why do you think newspapers print these articles?

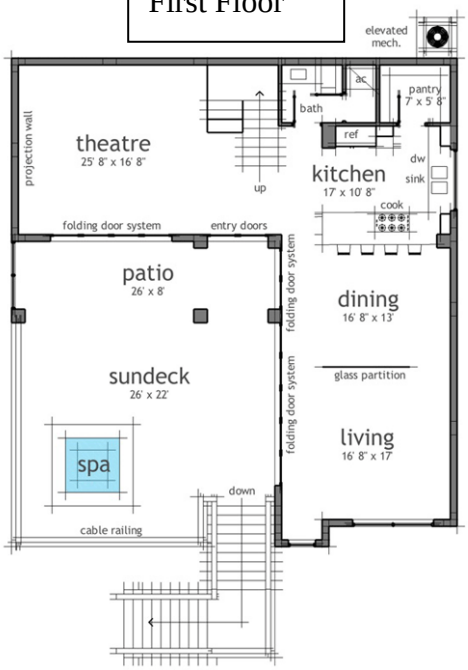
3. Why do you think people read these articles?
4. Which house would you prefer to buy? Why?

Descriptive Writing Unit
Beach House Joint Construction

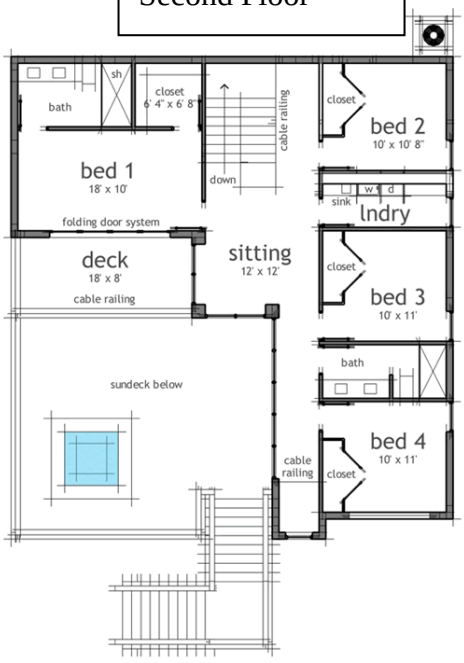
Look at the picture and floor plan of a beach house. Work as a class to write a featured home article about it, like the ones you read yesterday. You can add features that do not appear in the pictures.
Before you write, discuss these questions with a partner or small group: **Who might live in a house like this? Where do you think the house is located? What do you like about the house? What do you not like?**

(Image credits: http://www.monsterhouseplans.com)

First Floor



Second Floor



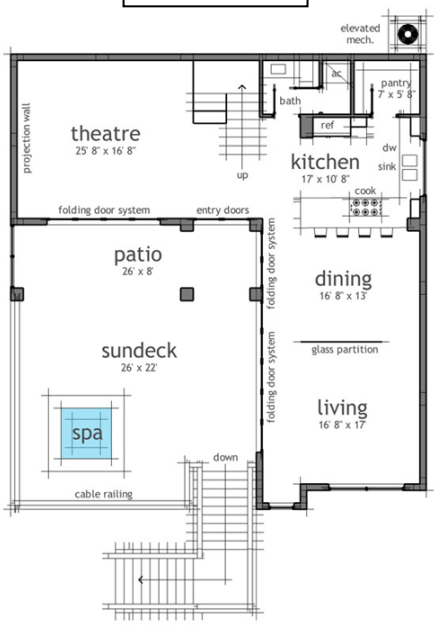
Descriptive Writing Unit
Beach House Featured Article (Control Condition)

Read the featured article on the next page about the house in the picture. The floor plans are below. Then, please answer the questions which follow.

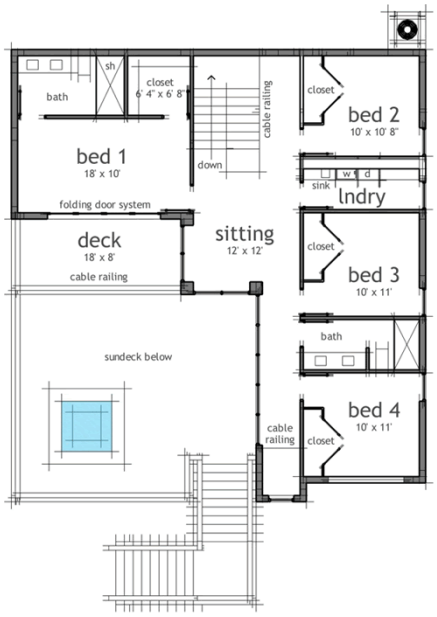
Before you read, discuss these questions with a partner or small group: **Who might live in a house like this? Where do you think the house is located? What do you like about the house? What do you not like?**

(Image credits: http://www.monsterhouseplans.com)

First Floor



Second Floor



A House Fit for a Movie Star

Rod and Lucy Clark always dreamed of owning a house by the beach. When they were growing up, their families always spent a week at the coast. In fact, they met as college students while they were both selling ice cream as a summer job in Bethany Beach, Delaware. Much later, in 2000, the Clarks' dream came true when they designed and built their very own beach house in nearby Rehoboth Beach. Although the beach will always be a special place for them, they are now selling the house because Rod, who is a successful TV producer, is going to start a new chapter of his career in Hollywood. If you share the dream of a life in the movies, this could be the beach house for you!

The house is located at the edge of the beach and sits on legs that raise it safely above the flood level. As you approach the house, its bright blue walls and distinctive[1] modern design stand out. A set of wooden stairs lead up to the sundeck, which features an inviting hot tub[2], just like in the movies. From there, you can look into the lower floor of the house through the glass walls, which slide open to create an enormous party space. There is more glass inside: a unique glass divider separates the spacious living room from the elegant[3] dining room. Through the kitchen is the biggest surprise in the house, a movie theater with a full-size screen and professional projector. Here, Rod shows guests his latest episodes and relaxes in the evenings watching classic movie musicals.

Upstairs, you can see Lucy's influence more. The four compact bedrooms surround an informal sitting area, which has soft chairs and natural lighting from the skylights in the ceiling. The only room that faces the ocean is the master bedroom, which has a deck that offers a picture-perfect view of sunrises over the Atlantic shore. The other bedrooms could accommodate a large family or friends who are visiting for the week. This unusual house in a perfect location is just waiting for a new owner to record beautiful memories at Delaware's most popular beach.

A. Write answers to these questions and then discuss them with your partner:

1. Why did Rod and Lucy Clark want to own a house at the beach?

2. Did they buy the house from another owner? How do you know?

3. Why are they leaving the house?

4. Why is the house raised above the street level?

5. How do you go in to the house?

6. What unusual room does the house have, and why?

7. How are the first and second floors different in style?

8. Do the three guest bedrooms face the ocean? How do you know?

9. Would you want to own this house? Why, or why not?

10. Do you have a dream location for a house? Where is it, and why?

B. Are the following statements about the house true (T) or false (F)? If they are false, write a correction.

1. T / F Rod and Lucy met while their families were on vacation at the beach.

2. T / F Rod is a successful TV actor.

3. T / F The house is probably very different from other houses on the same street.

4. T / F There is a swimming pool under the house.

5. T / F Rod had more influence over the design of the first floor than Lucy.

6. T / F The sitting room on the second floor does not need electric lights.

7. T / F There is one large bedroom and three smaller ones.

8. T / F You can see the sun set over the ocean in the evening from the master bedroom.

C. Match the information with the correct paragraph. Check your answers with a partner.

Information	**Paragraph**
Description of the upstairs	
Story about the owners	
Invitation for a new owner	
Description of the first floor of the house	
Description of the outside of the house	
Focus, or main idea of the article	

D. Analyze the grammar.

1. Underline all the adjective clauses in the article.
2. Label them **I** for identifying (no commas) or **NI** for non-identifying (with commas).
3. Circle all the adjective clause pronouns (*who, that, which*).
4. Draw an arrow from the adjective clause pronoun to the noun which it describes.
5. If you can use a different adjective clause pronoun for any clause, write it above *(what, that, which, whom,* or nothing).

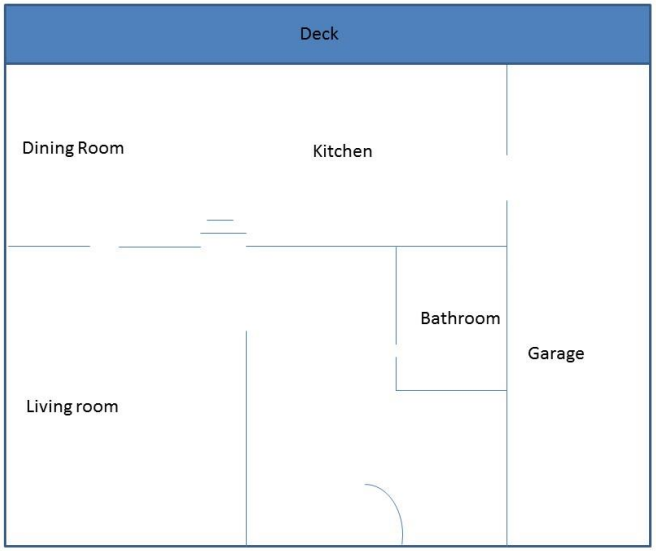
[1] Distinctive: different and easily noticed

[2] Hot tub: a heated bath that several people can sit in and relax

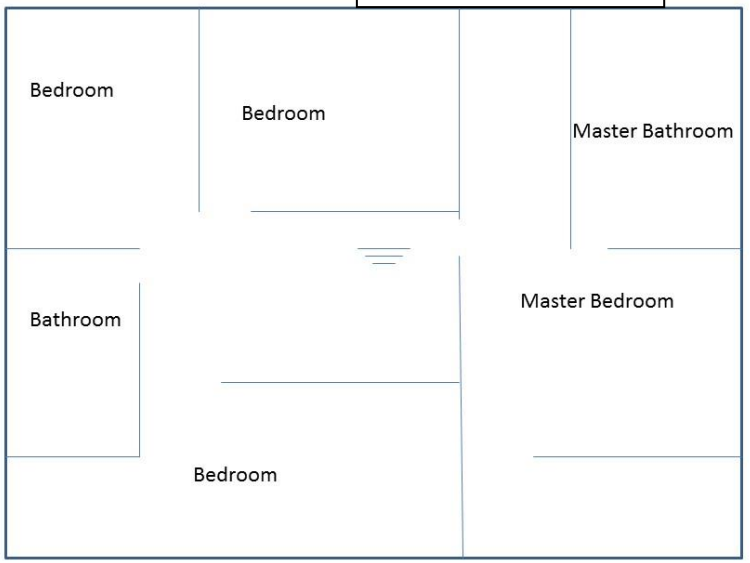
[3] Elegant: attractive and well designed

Descriptive Writing Task. Look at the photo and floor plan of another house. Write a featured home article about it. You can add any details or extra information you like. You do not need to describe every room. You have one hour. Do not ask your teacher any questions. Do not use a dictionary or any other resources. You will get a grade.
(http://www.jintudesigns.o)

First Floor



Second Floor



Appendix E

LESSON PLANS

Treatment Class Lesson Plans (Morning Sections)

Please check each line that you complete. Please note on the right any diversions, problems, omissions, or additions. This information will not be shared with your supervisors: it will be used to establish the fidelity of implementation of the study materials. Thanks!

Name: **Section IV / ___**

Check	**Week 1 Tuesday**	Comments
	Review syllabus	
	Ice-breakers, etc.	
	Start RW textbook	
	Week 1 Wednesday	
	Review consent forms. Use the video if you like! [15 minutes]	
	Diagnostic writing task (one hour). Please stress the biographical information on the cover sheet.	Please copy the students' writing and send to Nigel (mailbox, internal mail, or scan and email).
	Start grammar (30 mins, relative clauses), GB Unit 21 (reading pp. 136-137, comprehension check p. 137, noticing activity p. 137, start presentation pp. 137-138 if time) [15-20 mins]	
	Week 1 Thursday	
	Reading (25-40 mins)	
	Continue with grammar (45-60mins?)– finish identifying clauses through p. 141; do non-identifying clauses pp. 141-144 (skip "whose") – finish Unit 21	

	TREATMENT CLASSES: Joint construction paragraph (review paragraph structure) – what are some ways that we get the news. (20 mins)	**VIDEO THIS ACTIVITY and review with Nigel. Please also email me the jointly written text.**
	Week 1 Friday	
	Review MC reading 1 and do exercises which follow (your choice to balance homework and classwork). Optionally, do pre-reading for Reading 2 and assign for homework.	
	Start GB Unit 22 p. 150ff, identifying object relative clauses (reading, presentation, and exercises)	
	Week 2 Monday	
	Students moving up from Level III after the retest: consent form and diagnostic writing	**If done at home, please mark on their cover sheet.**
	Finish GB Unit 22	
	Work on MC Reading 2 to finish the lesson	
	Week 2 Tuesday	**VIDEO THE WHOLE CLASS** **And keep the camera!**
	Pre-reading discussion [5 minutes] Read the two featured home articles [15 minutes]	
	Discuss exercise A with partner [3-5 minutes]	
	Review answers to exercise A [2 minutes]	
	Work in pairs to complete exercise B; monitor and provide feedback [15 minutes] – don't spend too long!	
	Complete exercise C individually [7 minutes]	
	Review answers to exercise C [3 minutes]	

	Complete exercises D and E individually [5 minutes]	
	Review answers to exercises D and E [5 minutes]	
	Complete exercise F in pairs (or a group of 3). [15 minutes]	
	Review answers to exercise F [10 minutes]	
	Discuss exercises G and H in small groups (this is also grammar review of relative clauses) [10 minutes]	
	Review answers to exercises G and H [10 minutes]	
	Week 2 Wednesday	**VIDEO THE WHOLE CLASS (then return the camera to Nigel)**
	Look at the picture and floor plan and discuss the questions with a partner or small group. [5-10 minutes]	
	Explain that you are going to write an article about this beach house together. Review discussion questions as a class and keep notes on the board about the owner, likes, and dislikes. [10 minutes]	
	Review with the class the stages of a good featured house article (refer to yesterday's materials if necessary) [5 minutes]	
	Jointly construct the article: use a Word document projected on the screen/smartboard. Elicit words, phrases, and sentences from students as far as possible. Discuss grammar issues as they arise. Point out where they can usefully add adjective clauses. [1 hour] Please try to complete the article in the class period. **Email the finished text to the students, and please copy me**	

	Leave yourself about 20 minutes to start a review of verb tenses (Azar, as time allows)	
	Week 2 Thursday	
	Please start the class with the independent writing task – one hour, no dictionaries or access to materials from this unit. Copy and send the writing to Nigel.	
	This concludes the study – the rest of Thursday's class does not need to be noted here. Thank you!	
	Continue with verb tenses; start (reading book); relative clause test on Friday	
	Friday: Relative clause test; continue with MC	

Treatment Class Lesson Plans (Afternoon Sections)

Please check each line that you complete. Please note on the right any diversions, problems, omissions, or additions. This information will not be shared with your supervisors: it will be used to establish the fidelity of implementation of the study materials. Thanks!

Name: **Section IV / ___**

Check	**Week 1 Tuesday**	Comments
	Review syllabus	
	Ice-breakers, etc. t	
	Start grammar (relative clauses) [30 minutes]	
	Reading book (TBD)	
	Week 1 Wednesday	
	Review consent forms (use the video if you like, 15 mins)	
	Diagnostic writing task (one hour)	After class, please copy the students' writing and send to Nigel (mailbox, internal mail, or scan and email).
	Reading	
	Continue with grammar [50 minutes]	
	Week 1 Thursday	
	Reading	
	Grammar	
	Joint construction paragraph (review paragraph structure) – what are some ways that we get the news. (20 mins)	**VIDEO THIS ACTIVITY and review with Nigel. Please email me the jointly written text.**
	Week 2 Monday	
	Students moving up from Level III after the retest: consent form and diagnostic writing	**If done at home, please mark on their cover sheet.**
	Grammar	

	Reading	
	Week 2 Tuesday	**VIDEO THE WHOLE CLASS** **And keep the camera!**
	Pre-reading discussion [5 minutes] Read the two featured home articles [15 minutes]	
	Discuss exercise A with partner [3-5 minutes]	
	Review answers to exercise A [2 minutes]	
	Work in pairs to complete exercise B; monitor and provide feedback [15 minutes] – don't spend too long!	
	Complete exercise C individually [7 minutes]	
	Review answers to exercise C [3 minutes]	
	Complete exercises D and E individually [5 minutes]	
	Review answers to exercises D and E [5 minutes]	
	Complete exercise F in pairs (or a group of 3). [15 minutes]	
	Review answers to exercise F [10 minutes]	
	Discuss exercises G and H in small groups (this is also grammar review of relative clauses) [10 minutes]	
	Review answers to exercises G and H [10 minutes]	
	Work on Reading book [30 minutes]	

	Week 2 Wednesday	**VIDEO THE WHOLE CLASS (then return the camera to Nigel)**
	Look at the picture and floor plan and discuss the questions with a partner or small group. [5-10	

	minutes]	
	Explain that you are going to write an article about this beach house together. Review discussion questions as a class and keep notes on the board about the owner, likes, and dislikes. [10 minutes]	
	Review with the class the stages of a good featured house article (refer to yesterday's materials if necessary) [5 minutes]	
	Jointly construct the article: use a Word document projected on the screen/smartboard. Elicit words, phrases, and sentences from students as far as possible. Discuss grammar issues as they arise. Point out where they can usefully add adjective clauses. [1 hour] Please try to complete the article in the class period. **Email the finished text to the students, and please copy me**	
	Start review of verb tenses (Azar, as time allows) [50 minutes]	
	Week 2 Thursday	
	Please start the class with the independent writing task – one hour, no dictionaries or access to materials from this unit.	Copy and send the writing to Nigel.
	This concludes the study – the rest of Thursday's class does not need to be noted here. Thank you! (continue with relative clause test)	

Control Class Lesson Plans (Morning Sections)

Please check each line that you complete. Please note on the right any diversions, problems, omissions, or additions. This information will not be shared with your supervisors: it will be used to establish the fidelity of implementation of the study materials. Thanks!

Name: **Section IV / __**

Check	**Week 1 Tuesday**	Comments
	Review syllabus	
	Review consent forms	
	Diagnostic writing task (one hour): *immediately* after class, please copy the students' writing and send to Nigel (mailbox, internal mail, or scan and email). These will be available on the Level IV Dropbox for you to use if students change sections.	
	Ice-breakers, etc. to fill the lesson.	
	Week 1 Wednesday	
	MC: Understanding vocabulary in context pp. 8-11 (30 mins) Reading 1: Connecting to the topic p. 12 (discussion, 5 mins)	
	Review paragraph structure together. Then ask students to choose one of the three questions, and write a paragraph – 20 mins	
	Start grammar (relative clauses), GB Unit 21 (reading pp. 136-137, comprehension check p. 137, noticing activity p. 137, start presentation pp. 137-138 if time) [15-20 mins]	
	Week 1 Thursday	
	MC: Previewing & Predicting p. 12; Reading 1 p. 13ff (start in class to model the while-you-read boxes); assign the rest for homework	

	Continue with grammar – finish identifying clauses through p. 141; do non-identifying clauses pp. 141-144 (skip "whose") – finish Unit 21	
	Week 1 Friday	
	Review MC reading 1 and do exercises which follow (your choice to balance homework and classwork). Optionally, do pre-reading for Reading 2 and assign for homework.	
	Start GB Unit 22 p. 150ff, identifying object relative clauses (reading, presentation, and exercises)	
	Week 2 Monday	
	Students moving up from Level III after the retest: consent form and diagnostic writing	
	Finish GB Unit 22	
	Work on MC Reading 2 to finish the lesson	
	Week 2 Tuesday	**VIDEO THE WHOLE CLASS** **And keep the camera!**
	Pre-reading discussion [5 minutes] Read the two featured home articles [15 minutes]	
	Discuss exercise A with partner [3-5 minutes]	
	Review answers to exercise A [2 minutes]	
	Work in pairs to complete exercise B; monitor and provide feedback [15 minutes] – don't spend too long!	
	Complete exercise C individually [7 minutes]	
	Review answers to exercise C [3 minutes]	
	Complete exercises D and E individually [5 minutes]	

	Review answers to exercises D and E [5 minutes]	
	Complete exercise F in pairs (or a group of 3). [15 minutes]	
	Review answers to exercise F [10 minutes]	
	Discuss exercises G and H in small groups (this is also grammar review of relative clauses) [10 minutes]	
	Review answers to exercises G and H [10 minutes]	
	Week 2 Wednesday	**VIDEO THE WHOLE CLASS (then return the camera to Nigel)**
	Look at the picture and floor plan and discuss the questions with a partner or small group. [5-10 minutes] (The next sequence of activities up to the end of the handout should last about an hour)	
	Read the featured home article. [5-10 minutes]	
	Ask students to write answers to exercise A individually [15 minutes]	
	Students discuss answers to exercise A in pairs. [5-10 minutes]	
	Review answers to exercise A as a class. [5-10 minutes]	
	Ask students to complete exercise B individually [10 minutes]	
	Students discuss answers to exercise B in pairs. [3 minutes]	
	Review answers to exercise B as a class. [3 minutes]	
	Ask students to complete exercise C individually [3]	
	Students discuss answers to exercise C with a	

	partner [3]	
	Review answers to exercise C as a class [3]	
	Students do exercise D individually [10 minutes]	
	Students review exercise D with a partner (if time allows)	
	Review answers to exercise D with the class [10 minutes]	
	Leave yourself about 20 minutes to start a review of verb tenses (GB p. 204-209, as time allows)	
	Week 2 Thursday	
	Please start the class with the independent writing task – one hour, no dictionaries or access to materials from this unit. Copy and send the writing to Nigel.	
	This concludes the study – the rest of Thursday's class does not need to be noted here. Thank you! Continue with verb tenses; start MC: Finding Main Ideas p. 27; relative clause test on Friday	
	Friday: Relative clause test; continue with MC	

Treatment Class Lesson Plans (Afternoon Sections)

Please check each line that you complete. Please note on the right any diversions, problems, omissions, or additions. This information will not be shared with your supervisors: it will be used to establish the fidelity of implementation of the study materials. Thanks!

Name: **Section IV / ___**

Check	**Week 1 Tuesday**	Comments
	Review syllabus	
	Review consent forms	
	Diagnostic writing task (one hour): *immediately* after class, please copy the students' writing and send to Nigel (mailbox, internal mail, or scan and email). These will be available on the Level IV Dropbox for you to use if students change sections.	
	Ice-breakers, etc. to fill the lesson.	
	Start grammar (relative clauses), GB Unit 21 (reading pp. 136-137, comprehension check p. 137, noticing activity p. 137, start presentation pp. 137-138 if time) [30 minutes]	
	Week 1 Wednesday	
	MC: Understanding vocabulary in context pp. 8-11 (30 mins) Reading 1: Connecting to the topic p. 12 (discussion, 5 mins)	
	Review paragraph structure together. Then ask students to choose one of the three questions, and write a paragraph – 20 mins	
	PM classes: Continue with grammar – finish identifying clauses through p. 141; do non-identifying clauses pp. 141-144 (skip "whose") – finish Unit 21 [50 minutes]	

	Week 1 Thursday	
	MC: Previewing & Predicting p. 12; Reading 1 p. 13ff (start in class to model the while-you-read boxes); assign the rest for homework	
	Start Unit 22 p. 150ff, identifying object relative clauses (reading, presentation, and exercises) Can also do more of Reading 1 or the vocab exercises which follow.	
	Week 2 Monday	
	Students moving up from Level III after the retest: consent form and diagnostic writing	
	Finish GB Unit 22	
	Review MC Reading 1 Optionally, do pre-reading for Reading 2 and assign for homework. Finish GB Unit 22	
	Week 2 Tuesday	**VIDEO THE WHOLE CLASS** **And keep the camera!**
	Pre-reading discussion [5 minutes] Read the two featured home articles [15 minutes]	
	Discuss exercise A with partner [3-5 minutes]	
	Review answers to exercise A [2 minutes]	
	Work in pairs to complete exercise B; monitor and provide feedback [15 minutes] – don't spend too long!	
	Complete exercise C individually [7 minutes]	
	Review answers to exercise C [3 minutes]	
	Complete exercises D and E individually [5 minutes]	

	Review answers to exercises D and E [5 minutes]	
	Complete exercise F in pairs (or a group of 3). [15 minutes]	
	Review answers to exercise F [10 minutes]	
	Discuss exercises G and H in small groups (this is also grammar review of relative clauses) [10 minutes]	
	Review answers to exercises G and H [10 minutes]	
	Work on MC Reading 2 [30 minutes]	
	Week 2 Wednesday (CONTROL)	**VIDEO THE WHOLE CLASS (then return the camera to Nigel)**
	Look at the picture and floor plan and discuss the questions with a partner or small group. [5-10 minutes] (The next sequence of activities up to the end of the handout should last about an hour)	
	Read the featured home article. [5-10 minutes]	
	Ask students to write answers to exercise A individually [15 minutes]	
	Students discuss answers to exercise A in pairs. [5-10 minutes]	
	Review answers to exercise A as a class. [5-10 minutes]	
	Ask students to complete exercise B individually [10 minutes]	
	Students discuss answers to exercise B in pairs. [3 minutes]	
	Review answers to exercise B as a class. [3 minutes]	
	Ask students to complete exercise C individually [3]	
	Students discuss answers to exercise C with a partner [3]	

	Review answers to exercise C as a class [3]	
	Students do exercise D individually [10 minutes]	
	Students review exercise D with a partner (if time allows)	
	Review answers to exercise D with the class [10 minutes]	
	Start review of verb tenses (GB p. 204-209, 218-221, as time allows) [50 minutes]	
	Week 2 Thursday	
	Please start the class with the independent writing task – one hour, no dictionaries or access to materials from this unit. Copy and send the writing to Nigel.	
	This concludes the study – the rest of Thursday's class does not need to be noted here. Thank you! (continue with relative clause test)	

Appendix F

STUDENT SURVEY

Do you agree with these sentences?

5 = strongly agree; 4 = agree; 3 = neither agree nor disagree; 2 = disagree; 1= strongly disagree

1. I know what to write in a featured house article.

2. I know how to organize a featured house article.

3. I know how to use relative clauses in a featured house article.

4. I know how to write different kinds of descriptions.

5. My writing has improved since the start of the session.

6. I am happy with the article that I wrote in class on Thursday.

7. I enjoyed the featured house unit this week.

8. I found the featured house unit useful.

TREATMENT: 9. I enjoyed the whole-class writing activity on Wednesday.

TREATMENT: 10. I found the whole-class writing activity useful for my own writing.

TREATMENT: 11. I would like to do more whole-class writing this session.

TREATMENT: Please write answers to these questions:

12. What did your class discuss in the whole-class writing activity on Wednesday?

13. Did you learn anything from the whole-class writing that you used in your own writing?

ALL: 14 Is there anything else you'd like to tell me about the featured house unit?

Appendix G

TEACHER INTERVIEW PROTOCOL

1. Did you enjoy teaching the featured house unit? (Follow-ups: Do you feel the students mastered the genre? Was this different from other materials you have used to teach descriptive writing? What assignments do you usually give for descriptive writing?)

2. How do you feel about the Joint Construction task you did with your class? (Follow-ups: have you done this kind of activity before? how was it different to other activities you use to teach writing? would you do it again?)

3. What did you talk about during the Joint Construction? (Follow-ups to probe balance of attention to content, genre, and language; any other observations or problems from the video)

4. How did you help students write the collaborative text? (Probe types of scaffolding)

5. Do you feel the students' writing improved after the unit? (Follow-up: do you think the Joint Construction task played a role in any improvement?)

6. How would you improve the materials and/or the Joint Construction task?

7. Is there anything else you'd like to tell me about the unit you taught for this study?

Appendix H

GENRE COMPLETION RUBRIC

Note: The codes numbers are *categories*. No scale is implied.

1 – Target: The text is clearly a featured house article: it describes a home for sale as if for a newspaper article. The writer may intrude as the realtor, but there is a clear attempt to describe someone else's house that is for sale.

2 – Self-sale: an article in which the writer is selling his/her own house or family home. These pieces may feel like a personal sales pitch with substantial use of first-person pronouns and personal commentary (such as likes and dislikes). However, other than that, they have the basic structure and elements of the target genre.

3 – Description: these papers are purely descriptions of a house, usually (but not always) the writer's own house, childhood home, or dream home. Texts which just describe why someone bought their house and why they like it are also coded here. There is no reference to the house being for sale at the present time.

4 – Something else: the writer has produced an entirely different genre, such as an explanation (why I like this kind of house) or narrative (e.g., a story about a visit to someone's house).

Appendix I

GENRE COMPLETIONANCHOR PAPERS

1 = Target Genre

Tom and Mary first met each other in 2004. They felt in love with each other really quickly. Both of them wanted to live close to sea, so they designed and built a really beautiful house in Coconut Beach by themselves. Two months ago, Tom got a new job in Canifornia. They had to sell this beautiful house and move to Canifornia. This house is really good for those people who want to live in a big a comfortable house that near sea.

There is a huge garage which can park more than two cars on the first floor. People can enter the house through the garage and will get to the kitchen. Although the kitchen is not really big, it contains everything in it. The kitchen also connects to the dining hall. On the back of the dining hall and the kitchen, there is a deck which has wonderful view of the sea. Sometimes, people can enjoy the view after they have dinner in the dining hall. On the other side of the dining hall, there is a living room which can let people sit with their family or friends. This can also be an interesting activity after dinner. There is a bathroom for guess on the first floors.

Upstairs, there are three middle size bedrooms and a huge master room. Three of the bedrooms have good views of the sea. The best thing for this both is that Tom used glass instead of brick to build the back of the house. People can look at the sea through those glass. All of the three middle size bedrooms are on the left side of the second floors. There is a really big bathroom in the middle of those middle size bedrooms. On the right side of the second floors, there is a huge master bedroom with a big master bathroom. Both bedroom and bathroom have views of the sea. When people take shower in the master bathroom, they can still look at the sea. Because the house has a total of four bedrooms, it can also be a place that can invite friends to have a vacation during weekend. The house is selling right now. This house should be an wonderful place for those people who want to live near the sea.

1 – Target genre

As you can see this house is a very big villa locate for away business city, it is very quiet place you can relax on there. And this villa owner is an old couple. When their younge they live in New York and meeting each other in New York then they married move out the business city New York. They choose a quiet place to build their house. A few year, they have childs, all family live together until their childs growing up and move out this quiet town to work.

First of all, this house have two floors but there are totally different fountion. The first floor have four roomes includ a dining room, kitchen a living room, garage and a bathroom. And the kitchen is near the dining room it is more convience for people when they finish cook. There are also have a big living room you can watch TV at here, chat with your family or play some games.

The second floor have six rooms and two master rooms. all the rooms are very clear and comfortable. The old couple live in the master room, because the master room can look outside very good, and the old women like sit down close the window chair to enjoy her afternoon tea and view outside. The other bedrooms is live their son and daughters. Also, the other bedrooms also can saw the garden glass and flowers.

The big villa is locate vallge, so basid the big house have a big garden. And around the garden have lots of big gree tree. In summer the family alway like sit under the tree to drink some coffee and read books. In the garden have lots of different kind of flowers and fruit such as apple, pair. They can eat own garden fruits and vegetables is more health and safe.

I think the home will like a warm harbor, when you hurt and said you can come back here. And this house will like warm harbor, you come here enjor the colorful garden, brath fresh air, relax you self and forget everything you didn't want remember.

2- Self-sale

It's been long time since we cam to United States. Almost 15 years ago when my father brought us with him from Saudi Arabia because he had a job in Saudi embassy which is in United States. However, my dad got retired now and he said it's time to go back, but before that we have to do important things. Most important things is selling our home. It's in Orlando City, which is in Florida State. Also it's near from UCF university, which is the university I graduated from it.

Moreover, the house looks amazing from outside with wooden roof and green park. It is so perfect for a person who lik to relax on the afternoon or even at night.

When you get in the door you can see the bathroom on your right and the living room on your left. The living room has comfortable place to seat of study because it has library and fireplate, which is keep the house warm at the winter. Also, first floor has dining room, kitchen and garage.

When you be in the seond flor, it has three bedrooms and one more is master bedroom which has privte bathroom and beautiful balacony. Finally there is one more batroom that three bedrooms are sharing togther.

I really hope if there is any idea that I can live in this house again, so I am glad for the person who is going buy it my unique home.

2 – Self sale

My beautiful and comfortable house buit in 5 year ago. The house near the University and the century park. The house have the best location in the city. When I live this city, I can not find the good house for my family, so I spent much money bought the place and built the house, but I have a huge business investment this year and I don't have enough money. So I want to sell the big house.

The house have the best location in the city. If you live the house, you are walking to University only need 5 minites and you are walking to century Park about 10 minites. The University is the best University in this city. Many students want to live to homestay. If you feel lonely, you can let some students live this house. If you Like sports, you can go to the University's gym which has swimming pool, tennis place, basketfall place, dancing place and many useful to healthy machines.

The comfortable big house have two floors. when you are walking to the beautiful house, you can see a beautiful fish pool which has some trees, mountains, water and some beautiful stones. These fishes of fish pool are swimming every day and they are not stop, that it is symbol we are free life, so many visitors very love that. The fish pool's left that it is living room which has big glass window, so the living room very bright and you can see the yard's trees and flowers through the big glass window. The Dining room and kitchen next to the Living room. The first floor have a deck where is out of the dining room and kitchen. In Summer, my friends, family members with me often eat BBQ on the deck. We can eat dilious food and watch the natural view. The luxcurse house have a big garage that is very useful, because you not only stoping four car but also washing these car. The big garage have the most popular machine for

washing cars. The second floor have three bedrooms, one Bathroom and a big Master bedroom. The master bedroom have invidual master bathroom. The second floor very quiet, if you don't like nosiy, the second floor is best choose for sleeping.

That's all the information to the house. if you like it. You can call me and wishes you have a beautiful life.

3 – Description only

Descripe the Home

There are alot of things that is perfect in the home. On the first floor which are dining room, kitchen, living room, bathroom, and grage. On the second floor which are three bedrooms, master bedroom, master bathroom, and bathroom. I think the home who has all of these things is the rich people.

The first floor which has a perfect things. The living room is next to the dining room who has a door. A kitchen which is a cross from dining room. Also the fire place is a movement. The garage is on the right side of the home. I think the home is interesting because all of the room are there.

The second floor who is important to the own of the home because the master bedroom on the second floor on the right side. The bedroom which is on the left side a cross from the bathroom. in my opinion the second floor is movement.

In fact, the home is nicely. The first floor which is of the home. It has a lot of things. The living room is next to the dining room. Also the kichen whch is across from dining room. The second flor which is important to the own of the home because the master bedroom on the second floor. The bedroom which is on the left side across from the bathroom.

3- **Description** only

Mr Smith, who is a famous enterpreneur, wanted to buy a house for him and his wife to live and enjoy their next lives. Therefore, he wanted to have a great environment to live in. He paid attention to this building, which is located in Delaware and far away from the main street. He is very glad that he finds a wonderful home for him and his wife.

The house has a quiet environment around it. A little forest is behind the house and it serves as a natural place for the Smiths to do some exercises and have a relaxing rest. Of course, it is a great choice for them to invite their friends to have a tea party there.

In front of the door, there are two small flover beds on the two side. The beautiful flowers look like geniuses which is infront of the door and welcome visitors who want to visit the Smiths. The big garage which is this couples' special idea. It occupies half space of this house's first floor and the Smiths never worried about their visitors have no place to park their cars. Of course, the woonden gate of this garage also makes this house look more classical and beautiful.

Get on a few stairs in front of the door, you can get into this house. The first room you get must is this large living room. It shows everyone how hospitable the Smiths are. Visitors can enjoy some snacks which are always on the table of this living room; and visitors also can have a freely chat with each other. Of course, visitors also can enjoy the great view which outside the house through the big windows which on the left wall. Go through across the dining room, you can be the kitchen which is in the back of the house. Watch through the window which is on the back of wall, there is a long deck in front of the forest. Mis Smith can enjoy the great view while she cooks delicious foods in the kitchen.

Go up the stairs, there is divided as two parts. On the right side, there is a master bedroom which is owned by the Smiths, The big space and soft bed can make them have a good sleep, and classical styles of of this room is also can make them feel relax. On the left side of stairs, there are three bedrooms for visitors and their friends. This is also the Smiths' idea. People who wake up from these three rooms, they all can see the forest through the windows at first and Smiths believe this will put their visitors in a good mood to face the whole day. This is a perfect home for the Smiths and they believe that if they live in this house forever, they will feel everything is enjoyable forever.

4 – Something else

Last week I went to Tom's house. He invited me to his birthday party. It was very amazing. The house which is pretty large and beautiful impressive me. The house which is clean and new have two floors. The deck is brandly new. It is very luxary. In the first floor, there is a giant living room. There are two televisions in the living room. When I crossed the living room, I saw the Dining room. Kitchen and Dining room which is a big area are together. The bathroom is near the kitchen. I think it's a big area, too. In the bathroom, there is a mirror. And the automatic toilet is near the mirrow. The garage is near the kitchen, too. I think it's very luxury because it's very well. When I walked back the living room, I saw a very soft sofa. The sofa which I saw was made by leather. It's very comfortable. By the way, the droplight is very beautiful. I think it was made by crystal. And the rug is pretty soft, I feel too comfortable to walk. Then I went to the second floor.

In the second floor, there are five bedrooms. The masser bedroom belongs to Tom. It is very clean and beautiful. There are four computer screens in his bedroom due to the reason that he watch the stock market diagram everyday. He is good at it. Even in the bathroom, there hase a television. The bedroom which is near master bedroom is Eric's bedroom. Eric is Tom's son. He is only eight years old. In this bedroom, I saw lots of toys. The bedroom which is near the Eric's room is Eva's room. Eva is Tom's daughter. She is only five years old. In this room, I saw lots of dolls. I guess this room's theme color is pink due to the reason that everything in this room is pink. The last bedroom is Kate's bedroom. Kate is Tom's mom. She is 60 years old. Her room have a little bit mess, but I think it's luxary and comfortable, too. I walked around for four minutes, and then I go outside.

The garden is very beautiful due to the reason that there are lots of flowers. When I finished the visit, Tom invited me and his friends ate BBQ at the garden's grass. Then I drunk a lot. My friend Jack drive me to the home. Compare to Tom's house. My house is poor. I love his house.

Appendix J

PRETEST QUALITY RUBRIC

The **prompt** for this task was: “Describe your room, house, homestay, or apartment here or in your home country, and say why you like it.”

The **purpose** of this task is to clearly describe a home, room, apartment, or homestay* to a reader who is not familiar with it so that the reader can clearly imagine the place. (* Some students interpreted the prompt incorrectly and described their *homestay family, hometown, or home country*; these can still be rated for the quality of the description.)

A good description **contains** a substantial number of interesting and relevant key characteristics or features of the place, each supported by one or more details (e.g., descriptive words, components, sensory details, or uses). For example, a feature of a house might be the kitchen; supporting details could be its size, design, layout, lighting, or appliances, or a function (“large kitchen for family meals” or “a place where guests can chat while you cook”).

Good descriptive writing is logically and smoothly **organized** around a central principle. The organizational pattern will depend on the text but may be spatial (e.g., inside/outside, first floor/second floor, guided tour from the entrance), functional (e.g., arranged by the activities that occur in the place), or sensory (e.g., sights then sounds). Whatever strategy is used, the organization is clear to the reader, the text has overall coherence (that is, the ideas are all relevant), and the writing has cohesion (the ideas and sentences are appropriately connected).

In terms of **language use**, a good description employs a wide range of vivid vocabulary (e.g., adjectives and adverbs) with little repetition. Present simple tense is mainly used for the description, but other tenses (past simple, present perfect) may be used for context. Most verbs are linking verbs, but the writer avoids using only *be* and *have* (e.g., the hallway *leads to* the kitchen; the desk *sits* in front of the window). Complex grammar such as subordinate (adverb) clauses and relative (adjective) clauses allow the writer to provide supporting details and develop the description. Errors in word choice, sentence structure, syntax, and punctuation may occur but do not distract from the overall effect of the description. (Please note that spelling has been corrected where possible.)

The rubric for evaluating descriptive writing incorporates all of the criteria above. However, your task in scoring the writing is to evaluate the **overall quality of the description**. Therefore, please try to balance all the factors when choosing a score. Language use (grammatical errors or problems with vocabulary) have an impact on the overall effectiveness of a description but should not be the primary focus of your score.

Please try to use only whole numbers. If you are absolutely sure that you cannot rate a paper between two scores, you may use a half number.

Thank you for your time and patience!

Score	Meaning	Explanation
0	Minimal response	The paper may mention a place but does not provide a description of it.
1	Undeveloped	Overall, the description is not effective. The paper attempts to describes a place but contains only a very few characteristics and almost no details about them. The description lacks an overall organization strategy and/or is a list of unconnected sentences. The writer has used a very limited range of vocabulary and sentence structures and no complex grammar (e.g., adjective and adverb clauses).
2	Minimally developed	Overall, the description is minimally effective. The paper describes a place so that the reader can identify it. The description includes several characteristics or features. However, the characteristics are very rarely supported by relevant details. There is a lack of overall organizational strategy; although there may be some attempts at cohesion, the description is mostly a list of loosely connected sentences. The writer has used a very limited range of descriptive vocabulary and sentence structures, possibly with considerable repetition of descriptive language, and little or no complex grammar.
3	Partially developed	Overall, the description is somewhat effective despite areas of weakness. The paper describes a place somewhat clearly, including a number of characteristics or features, almost all of which are supported by at least one detail. The details are mostly, but not always, relevant. The paper has an identifiable strategy for organizing the description, although there may still be inconsistencies in the overall coherence and sentence-to-sentence cohesion. The writer has used a somewhat limited range of descriptive vocabulary (e.g., mostly high-frequency adjectives), with some repetition and has attempted some complex grammar.
4	Developed	Overall, the description is mostly effective. The paper describes a place so that the reader can visualize it with only occasional areas of confusion. The description includes many key characteristics which are almost all supported by details. There is an identifiable strategy for organization, used mostly consistently and effectively, although cohesion may be lacking in some places. The writer has used a range of descriptive language, including some lower frequency words, probably with some repetition. Complex grammar is attempted where appropriate and is sometimes accurate.
5	Well developed	Overall, the description is effective, and even very effective at times. The paper clearly describes a place so that the reader can visualize it. The description includes a substantial number of key characteristics, all of which are supported by one or more interesting and relevant details. There is an evident and effective strategy for organization. The writing is coherent and mostly cohesive. The writer has used a broad range of descriptive vocabulary perhaps with occasional repetition and employs complex grammar appropriately at times.

Appendix K

PRETEST ANCHOR PAPERS

Anchor paper C, rating 1

The most houses in Saudi Arabia are big. My house is really beautiful and big. It consists of 3 floors.

The first floor is consists of big living room, Guests room, council and kitchen.

The second floor is consists of 5 room, 5 bathrooms. the third floor is consists of extra rooms.

So the houses is my home are big and the first floor is for guesthouses, and the second for sleep.

Anchor paper B, rating 2

Every one has to live in the house or apartment that means they can sleep and stay their. Now I live in the USA, so I have to live with homestay because I want to improve my English skills. My homestay from China and she has four students all of them girls, so they always speak chinese which means I cant improve my skills. I have to live with their for one years because my homestay's house near to the campus and my class. Sometimes I feel comfortable with their and sometimes I feel angry because they don't speak English. My room is too small, warm and has three windows. There is one bed, table and mirror. I learned a lot of things form my homestay and this is my first time I live with homestay.

In conclusion, everyone has mind and he can see which bitter [better] house or apartment to live in.

Anchor Paper F – Rating 3

The life in the Studio Green apartments

When I decided to study at ELI, the University told me differents options of housing. They told me about homestay, apartments and hotels. After seeing the options, I decided to take an apartment for two people at the Studio Green.

When I arrived, my first impression was that studio green was a very big campus. It has a lot of amenities like a gym and a laundry. It is located far of the university's campus but there is a shuttle that you can take to come to ELI and it's free!

I liked so much studio green because it is clean and it's an area very calm and there is a market close to it.

After walking four minutes from the main office, there is the building F, my building! It has three floors with three apartments in each floor.

My apartment is in the 1st floor. It's so big. It has two bedrooms, a living room, a kitchen, and dining room and a bath room.

In the living room I have a refrigerator, a micro-ondes [microwave], a bake and a large table.

In my bedroom, I have a big bed, a little table next to the bed, a big map, a table with a chair to study and a big area to keep my clothes and my shoes.

All the house is white and there is the air-condition in all the rooms, it's perfect for the summer. So, there is always a good temperature in the apartment.

But in the other hand, there are two problems with this apartment. The first, it's that it's so expensive and the second one, it's that if I want to have internet, I have to buy a special fil [cable] or a router if i want to have wifi.

In the moment, I'm living alone but normally there is other person who has to arrive to live with me. So, I'm waiting to meet my roommate and I hope that we can have a very good relation.

I think that Studio Green it's a good option for my experience in the United States. I hope to have a very nice experience.

Anchor paper D – rating 3

All of the people have something that thy like about the place where they live, and sometimes they think that's the best place to live. For me, My best place is my house, which is in my country, which is in Libya, because I live with my family, near from my friends, my room is big, and the location is perfect.

First of all, I like my house which is on my country because I live with my family and near from my friends. Basically live close with people who you love is the best. In my country I live with my family and that help my a lot, so I don't need to take care of the house, because my father brings the

things that the house need and my mother clean the house. Also, I don't care about money because I don't use a lot of money, so if I need something like money I call my father to gives me. Furthermore, live near from my friends is something great because we spend the daily life together and always we play soccer together, so the best thing for my house I don't feel bored in it.

Second, the location is fantastic. The location for the house is very good because it's in Tripoly, which is the capital of Libya, so it's very good place to hang out with friends, have fun and good for hang out with the family too. In addition, it's close from the beach, so it's beautiful place on the summer and me and my friends always spend the summer on the beach I like the view and the water is perfect.

In conclusion, my house, which is in my country, is the best place to live for me because it's with my family, live close from my friends and the location is very good. Also, everyone has place he likes to live in maybe alone or with family, but in my opinion live with family is a good way to live.

Anchor paper E– rating 4

The bedroom which in my home country - china is my favorite room. Though it is a small room, which just includes one bed, one desk and one wardrobe, it also includes my memory. This room is a quiet, special space for me, I can enjoy doing every thing in it.

When you visit my bedroom, you can found this room is divided to two parts of space in two sides. A big bed which occupy half of this room. It looks soft and comfortable. It can makes you have a thought that everyone can have a good sleep on this bed. When I study tired, it always can help me have a good relax. Desk, which is opposite the bed on another side. Before I came to the United states, I always studied on this

desk. This wooden desk always supported me, when I was tired to study. Wardrobe is next to the desk. It has the same color - brown as my desk. It makes them look like a whole body. Mom always will prepare clean and comfortable clothes into it and I can find them easily.

This is my room, a small, but quiet and comfortable room. Half of my life is spent in this room. I believe it is my favorite space.

Anchor paper F - rating 5

I live in the home stay, which is located on the 24# Aronimink Rd. It takes me five minutes to go to Main Street by car. My home stay owner comes from South of America, they are very kind guys. There are seven people who live in the house. We are a sweet family.

The house has two floors that provide enough space for living, so it is a typical house in America. The house is surrounded by a lot of trees. When the Summer comes that is really cool! We have a big parking ground near the door which provides at least four locations for parking. When I get close to my house, it give me a sense of happiness.

Entering the house, the first thing reflect in your eyes is the beautiful sitting room. There are three large, comfortable sofas and a big table. As you can tell, it is a big setting room. However, if you want to have a party, you can move the table and sofas, and it provides enough space to have a party with all your friends. Next room is near the sitting room and that is kitchen. It's an important part for our house because my homestay owner works as a cook and a manager in a restaurant, so he is always cooking interesting and delicious foods for us. Behind the kitchen room is a door which leads to the garden, which is the biggest one compared with our neighbors. We have had so many times party in this garden. It gives me a lot of nice memory.

To be honest, I have never been to the second floor, because that's the bedroom of my homestay owner. But I can guess that's a really beautiful room because he has a good sense of style. However, I can introduce about my bedroom on the first floor. There are three windows in my bedroom. They provide enough sunshine, even sometimes too much! That's really healthy. Near the windows is my desk. I always enjoy the views and do my homework in the same time, but the view sometimes make me forget to study. There is also a small bed. That's the only disadvantage in my room because I'm a big guy, but I don’t complain because I really like my little bedroom.

I spend a lot of time with the people in my homestay because I like the atmosphere. It makes me comfortable and helps me adapt to life in the United States. If you ever visit my homestay, even one time, I promise you won't regret.

Appendix L

POSTTEST QUALITY RATING RUBRIC

The **purpose** of this task was to write a featured home newspaper/magazine article (please see attached prompt) which would describe a house in enough detail to make it attractive to potential buyers.

A good article **contains** a main idea or focus and a substantial number of interesting and relevant key characteristics or features of the house, each supported by one or more details (e.g., descriptive words, components, sensory details, or uses). For example, the main idea might be that the house is good for entertaining; a feature of a house might be the kitchen; supporting details could be its size, design, layout, lighting, or appliances, or a function ("large kitchen for family meals" or "a place where guests can chat while you cook"). Well-developed house descriptions include some background about the house and/or its owners and their motivation for selling. The reader can imagine living in the house after reading successful articles.

Good descriptive writing is logically and smoothly **organized** around a central principle. The organizational pattern is usually spatial (e.g., inside/outside, first floor/second floor, guided tour from the entrance) but may also be functional (e.g., arranged by the activities that occur in the place) or sensory (e.g., sights then sounds). Whatever strategy is used, the organization is clear and logical to the reader, the text has overall coherence (that is, the ideas are all relevant), and the writing has cohesion (the ideas and sentences are appropriately and smoothly connected).

In terms of **language use**, a good description employs a wide range of vivid vocabulary (e.g., adjectives and adverbs) with little repetition. Present simple tense is mainly used for the description, but other tenses (past simple, present perfect) may be used for background information. The writer avoids using only *be* and *have* by using a wider range of linking and action verbs (e.g., the hallway *leads to* the kitchen; you can *find* a large bathroom). Complex grammar such as subordinate (adverb) clauses and relative (adjective) clauses allow the writer to provide supporting details, develop the description, and write in an engaging, sophisticated style. Errors in word choice, grammar, and punctuation may occur but do not distract from the overall effect of the description. (Please note that spelling has been corrected as far as possible.)

The rubric incorporates all of the criteria above. However, your task in scoring the writing is to evaluate the **overall quality of the article**. Therefore, please try to balance all the factors when choosing a score. Grammar and vocabulary have an impact on the overall effectiveness of a description but should not be the primary focus of your score.

Please try to use only whole numbers. If you are absolutely sure that you cannot rate a paper between two scores, you may use a half number.

Thank you for your time and patience!

Score	Meaning	Explanation
0	Minimal response	The paper may mention the house but does not describe it.
1	Undeveloped	Overall, the article is not effective. The paper attempts to describes a place but contains only a very few characteristics and almost no details about them. The description lacks an overall organization strategy and/or is a list of unconnected sentences. The writer has used a very limited range of vocabulary and sentence structures and no complex grammar (e.g., adjective and adverb clauses). Errors in basic language use disrupt reading.
2	Minimally developed	Overall, the article is minimally effective. The paper attempts to describe the house but does not have a focus or main idea. Although the article does include several characteristics or features, they are very rarely supported by relevant details. There is a lack of overall organizational strategy; although there may be some attempts at cohesion, the description is mostly a list of unconnected or illogically connected sentences. The writer has used a very limited range of descriptive vocabulary and sentence structures, possibly with considerable repetition of descriptive language, and little or no (accurate) complex grammar.
3	Partially developed	Overall, the article is somewhat effective with some areas of weakness. The paper describes the house somewhat clearly, including a number of characteristics or features, almost all of which are supported by at least one detail. The details are mostly, but not always, relevant. The paper has either a main idea/focus or an identifiable strategy for organizing the description, although there may still be inconsistencies in the overall coherence and sentence-to-sentence cohesion. Background information about the house and/or owners may or may not be provided. The writer has used a somewhat limited range of descriptive vocabulary (e.g., mostly high-frequency adjectives), with some repetition and has attempted some complex grammar.
4	Developed	Overall, the description is mostly effective. The paper describes the house with only occasional areas of confusion. The description includes many key characteristics which are almost all supported by details. There is a main idea or focus which connects some, but not all, of the description. There is an identifiable strategy for organization, used mostly consistently and effectively, although cohesion may be lacking in some places. One of the following is used but not developed in the paper: the history or importance of the place; an anecdote about the owners; or the owners' reason for selling. The writer has used a range of descriptive language, including some lower frequency words, probably with some repetition. Complex grammar is attempted where appropriate, and is sometimes although not always accurate.
5	Well developed	Overall, the description is effective, and even very effective at times. The paper clearly describes a place so that the reader can visualize it. The description includes a substantial number of key characteristics, all of which are supported by one or more interesting and relevant detail. There is a main idea or focus and an evident and effective strategy for organization. The writing is coherent and mostly cohesive. One of the following is used effectively: the history or importance of the place; an anecdote about the owners; or the owners' reason for selling. The

		writer has used a broad range of descriptive vocabulary perhaps with some repetition and employs complex grammar appropriately at times.

Appendix M

POSTTEST ANCHOR PAPERS

Note: Spelling has been corrected where possible. Ambiguous words have been left verbatim.

Anchor paper C, rating 1

I bought this house for my wife on the future. because it has many feature or advantages like location, that is near the South College in Newark.
Outside the house has park which is afront of the swim pool. Also the house has garage that you can park your car in it.

In side the house, it has two floors which make you comfortable. On the first floor, it has deck, dining room, kitchen, living room, bathroom, and garage. On the second floor it has three bedrooms which is around the bathroom. Also on the right side the house has two master bathrooms on the second floor.

Other hand this house is so big, I will get four wives maybe on the future if I will be rich man :). The kitchen in the house is common with dining room, which are infront of the bathroom and living room. Also garage on the first floor. the second floor this house has many rooms are enough for my wives on the future all of them are huge. on the right you can see two master rooms and the left you can see three bedrooms but there share with one bathroom. you can buy this house who want make a big family or who like do party every day. Call this number 302-388-1888.

Anchor paper, D rating 2

Ammar and Hana will get married next year and they need a house which will live. So, they decided to buy a house like what they want. At the first, they want a big house to live all their life so, It can be hard to design their house. they saw a great design house in the internet.

Outside of the house, there is small park and a big garage to enough two cars. Also, it has a small pool beside the park. There are many trees around the house.

Inside, there is a huge living room on the left which fit for many people almost 20 people so, if they have a big party, they can tell a lot of their friends. Also, there is a middle dining room beside the living room. When you eat in the dining room, you will enjoy because it has a big window to smell a fresh air. There is a modern kitchen beside dining room. It just has a normal stove. There is a small bath which guest.

Upstairs, they saw four bedrooms one of them has own bathroom. There is a small laundry between the bedrooms. Another thing, there is a large yard to collect something. Last thing, There is a big bathroom which uses their children in the future. They like it so much so, they decided to buy this house to live there all their life.

Anchor Paper B: rating of 3

Abdulrazaq and Sara they have an amazing house which can live there with three children. This house made from wood. It is very unique. This house built in 1993. Also, there are a nice neighborhood. The good thing for this house is very near from downtown. Some material from different countries.

Outside this house, there are an amazing trees, palms, and grass. There are two amazing floors which made from wood. There is a unique garage. It is made from Tennessee. Also, you can put inside the garage above three cars. It is worth mention, there a big deck with nice view. There are a big box you can put your stuff as, flowers, special water for trees and palms.

Inside this house, you can see the kitchen. It is very unique because it was made from Italy. There is dining room. There is a big livingroom with big bathroom. However, the living room you can do a lot of things. For example, you can play with your children, read books, watch TV and talk with your family.

Second floor, there are three big bedrooms with one bathroom. Every room has different method. For example, one of this room made from Texas. It is very unique stuff, also the window if you look at you can see an amazing view. There is a master bedroom with pretty master bathroom. This room made from wood with big black TV if you like to watch movies, TV shows, and watch your favorite sport. There is a sofa which made from Miami. It is an amazing thing you can take a rest with your dreams. As you can see this is a unique house with special things. Garage, trees, palm, and kitchen. Be or not to be. If you like it call me by 015-617-0000. I am still waiting.

Anchor Paper F – Rating 3

My friend Andy has a house that was bought in 2002 in Harbin of China. His family want to move to a new house, so he wants to sell the house. The house was set up next beach that is the eastest of China. This house has two floors inside and a big yard outside. I think that the yard is a garden because many kind of flowers are planed including rose, sunflower and carnation.

The first floor has 5 rooms. When you into the house, you can see a bathroom at first. This first floor just has one bathroom that has bathtub, washing sink and sinkpot. And there is a livingroom that has 3 sofas and a big TV. This livingroom is so big that can accommodate about 7 people. Through the livingroom is the dining room and kitchen. The two rooms are bigger than other rooms. When you after cook, you can eat so convenient because the dining room is next the kitchen, which has many tools to cook. The last room in the first floor is garage that can accommodate about 2 cars.

The second floor has 6 rooms, which are 4 bedrooms for guest, 1 master bedroom and 1 master bathroom. When you stay at master bedroom, you can see the sea. The master bedroom has the most comfortable bed. The 4 bedrooms that don't have bathrooms or other rooms have TVs and videos.

So, if you like this house, you can call me. My number is 18945230012.

Anchor Paper A: rating 4

A good house it's a good life!

John and Kate are a couple that dreamed to have their own house in the suburbs of the city. So, after two years to be married, they decided to buy a big house in Newark, which is a calm and small city near to big cities like Philadelphia and New York. After four years living in this house, they think that they took the best decision buying it for many reason like the beautiful style, the size, the location, etc. But unfortunately for them, they have to sell it because Kate has a very good opportunity in Canada for her job like a doctor.

In the first floor of this extraordinary house, there are a big garage, which has enough space for two cars. There is also a big kitchen, which is one of the room where we can see more Kate's style, with a american style, four stoves, one over and a refrigerator. Next to the kitchen we can find the dining room, which has a big table for 8 people. This room has a door that connect with the living room, a perfect space to relax watching TV or to have a big party and in this floor there is a bathroom, perfect for your guests.

Upstairs, in the second floor, there is a beautiful and colorful master bedroom, which has its own bathroom, it was the bedroom of John and Kate. The three others bedrooms, which have big windows for natural light, was the children's rooms. And the children's bathroom, which has a beautiful blue color, is in the middle of the rooms.

The outside of the house, it is one of the most wonderful features of the house, because there is a pool that invite children to stay and play, and also, there is a perfect BBQ to have a good time in family. So, if you have children this house is for you. I'm sure that they will love it. In addition, if you love the flowers, this house has a big yard in face of the wooden porch where you can spend your time with the nature. So do not lose this excellent opportunity and do an appointment to give you more details about the house.

Anchor Paper E rating 5

In 1990, a young business man, who started his entrepreneurship at that time, built this house, because he married with a beautiful woman before that time and he was going to welcome his first kid who would come to this world in 3 months. After that, the man's family were very happy. This house is located in Orange country of California, a charming place. However, the man will own his new business in Chicago, so he must move to there with his family, which has 3 children. Now, the house is waiting it's new owners who want to own a perfect 2-floor house with families.

In the outside of the house, there is a garden, which has many flowers and a huge grass land that people or children can do sports on or take a BBQ with friends on. Through the door, there is a hall with a bathroom. Next, there is a large living room, which has a lot of modern electric devices, such as plat TV, audio system, wii, projector, etc. The kitchen and dining room have a big place that can offer and share more than 10 persons' dinning. Besides, the garage fits 2 cars or 1 truck, and it can also offer a place to save your stuff that you usually do not use. Also you can go to garage through the kitchen. This is very convenient if it is very hot or cold outside.

Upstairs, in the right is the master bedroom, whose decoration is a little quait and a little sweet. In the master bedroom, you can see the clothing room, which is useful for the woman who has many clothes. It is a dream room for the woman who will move into this house. Of course, the deck could not be ignored, because you can take sun-shower with your another half at this personal space. At the same floor, three bedrooms was for three children, but now, you can transform one of them to a library that can be put many books. Also, you can transform one of them to a small living room that families can take entertainment or do some exercises here.

Remember, all furnitures in this house is very new and have high quality, so you can use them in a long time without breaking. In conclusion if you hold your family and you want a perfect house for them, you must consider this wonderful house.

Appendix N

LANGUAGE PROFICIENCY RUBRIC

The purpose of this rubric is to rate the student's language proficiency based on the vocabulary, grammar, spelling, and punctuation in each writing sample. The prompt for the task was:

"Describe your room, house, homestay, or apartment here or in your home country, and say why you like it." It was written by students at the start of Level IV RW.

Please focus on the language use in terms of accuracy of basic grammar (e.g., subject-verb-object word order, coordinating and simple subordinating conjunctions, present and past simple verb tenses, pronouns), presence and accuracy of complex grammar (subordination using more sophisticated conjunctions, relative clauses, noun clauses, perfect and progressive tenses, passive voice), word form, vocabulary range and accuracy, and punctuation. Spelling should only be taken into consideration if it suggests a lack of knowledge of word form rather than simply a spelling mistake.

Please do not consider the quality of the descriptive writing or task completion in your score. The target for "on-level" proficiency is the writing expected of average students at the end of Level III/start of Level IV. Use whole numbers only. Thank you!

	Meaning	Description
1	Lower than expected proficiency	Language typical of students in Level III or below. For example, lack of control of basic sentence structure, little or no use of subordination; incorrect use of present simple or past simple (including the most common irregular verbs); errors with common coordinating conjunctions; errors in basic use of gerunds, infinitives, or participle adjectives; confusion in the correct form of pronouns; inconsistent or confusing capitalization and punctuation (e.g., frequent fragments and run-ons with basic sentences). The vocabulary is overall limited to high-frequency words.
2	Expected proficiency	Language typical of the **average student entering Level IV**: is accurate in the basics but either largely lacking complexity or demonstrating unsuccessful attempts at complex, Level IV grammar. Mostly accurate control of: simple and compound sentence structure, with *some* use of rudimentary subordination with adverb clauses (e.g., because, when, after, before, if); present simple and past simple, including common irregular verbs; expressions for future time; basic use of infinitive, gerunds, and participle adjectives. The student may attempt more complex grammar (e.g., perfect tenses, relative and noun clauses, modals, or passive voice) but without any accuracy or control. Papers with inconsistent grammar (i.e., some correct above-level grammar combined with frequent below-level errors) are also rated 2. Capitalization and punctuation are mostly accurate, but errors occur in more complex statements. Vocabulary consists of high-frequency and occasional less frequent words.
3	Higher than expected proficiency	Student displays **some degree of control** over more complex grammar, in addition to a solid control of the basics required for a score of "2": for example, relative clauses, reduced relative clauses, noun clauses, passive voice, past perfect or other low frequency tenses, varied sentence structure, articles and prepositions. There are few errors in punctuation, capitalization, subject-verb agreement, or other signs of good editing. Vocabulary includes a range of less frequent words.

Appendix O

LANGUAGE PROFICIENCY ANCHOR PAPERS

Rating 1 (below expected proficiency)

This is my second time come US. Now I live in homestay my homestay have a couple and my homestaylady is pargeam six moth she is very nice. She cook for us everyday, because she doesn't have job she just stay at home, only my homestay owner she's husband work he is banker work in the PNC bank and he come home very late, so we just stay my homestaylady long time. In this homestay have four students, we are all come from china, but we live different city, I'm so happy have chance make new friends and I have build good friendship with them we cook chinese foods maybe is not good test but we enjoy in cook. Now let's me decribe the house, my homestay house laction is not good for me is so far for my ELI class.
However, the house laction is very convience for us is close the Christina mall we can buy everything we want buy like study tools, books, cloths ets.

At last, I'm so happy come here meet lots of new friends and thanks for my homestaylady help me so much and take care for me.

Rating 2 (expected proficiency)

I would like to describe my new apartment in ELI. We have four people living there. A America girl her name is Paula and three Chinese girls, Li, Buen and me. Our apartment looks like a family. Due to the fact that there have kitchen, balcony and three living rooms. These single for everyone. Like my room, there have a toilet, a desk, a bed and one small table. Although thae very simple, I think these enough, very convience for me. At the same time, white is my favourite color and the wall is white. So I am very satisfats. Espectally, I want to describe my own bed. It's really comfortable for me. Owing to the fact that I can put some beautiful sheet on there and it can also help me into deep sleep. It's very important things. And another reason about my apartment is environment. In there, you can find many delicious food. Like America food or Chinese food. And also you can go a mall, it's not very far. If you need some necessies you can go there to buy something. Over there, you can also see many gree trees. You can deep breath when you feeled tired. So I love my apartment.

Rating 3 (higher than expected proficiency)

My homestay is located not far away from University of Delaware. There are 4 rooms on the second floor for homestay students. I like my homestay for several reasons.

First of all, my homestay is only 5 minutes far away from the school by car. There are also many shops that I can buy what I need near my homestay. I also can take a walk from homestay to the school.

Second, my homestay mother and students who live with me are very kind to me. They are alway there to help me out such as pronounciation, grammer and things that I have to know for my future. There is also a dog which is so cute.

Third, there are many rooms that I can study, exercise, and play. There is an study room that I can study with my friends. We can do group project and prepare for presentation. There is also a gym room that I can exercise.

I like this homestay because people are kind to me, there are many shops, and there are also useful rooms for me to do some activities.

Appendix P

RELATIVE CLAUSE ACCURACY RUBRIC

0 = Ungrammatical: the clause is incorrectly structured – e.g., it is missing the relative pronoun, a subject, or verb; or is virtually incomprehensible; or shouldn't be a relative clause at all. Sentences containing only a relative clause – no evidence of a main verb – are also ungrammatical (assume the rest of the sentence is right if you can't see it, or flag it for further analysis). Examples of 0 scores:

- living there is a best choice that you are only minutes away from the noise of city (should be because not a relative clause)
- Last week, Ryan got a new job that is move to other states become a manager and (not understandable as a relative clause)
- in a big a comfortable house that near sea (attempted but no verb)
- Cause there are two different size master bedroom which is bigger another is tiny (incomprehensible)
- The spacious, comfortable master bedroom, which is with the private bathroom. (no main verb – shouldn't be a relative clause)

0.5 = Mostly correct with errors such as incorrect choice of pronoun (who vs. which vs that vs. whose – ignore punctuation so don't code errors of non/restrictive clause) or repeating the referent (the house that I bought it). Incorrectly reduced clauses should be scored here, including those with a subject + ing verb. Other verb form errors aren't counted (score 1). Incorrectly placed RCs go here too. Use of which for people = 0.5. Examples of half scores:

- He wants to change the house which he staying to enjoy his rest of life with (subject + -ing)
- me describe the first floor, which has a spacious garage [code 1: correct] that you can park more than one car in it. (code 0.5 for the repeated "it")
- office in LA so now he has to sell it which has 4 bedrooms. (basically OK but can't follow a pronoun)
- is the best, that has a nice floor and color, that is amazing. (both coded 0.5 – the first is in the wrong place, the second is correctly non-restrictive, but can't use that)

1 = Correct. Mark correct even if there is an incorrect choice between a restrictive/non-restrictive clause or missing preposition (e.g., *which* instead of *in which* or *where*). Do not penalize for punctuation errors (i.e., if you can add/omit a comma to make the clause grammatical, accept it), or verb form errors (e.g., subject-verb agreement or attempted passive) providing there is an attempt at a subject + finite verb. Minor semantic errors are acceptable if the clause is structurally correct. We're also ignoring sentence errors with there is if the relative clause is correct (there is a large kitchen, which has a deck, faces the living room). Note that if the student has correctly used a non-restrictive clause but with that instead of which, code 0.5. Also, misuse of whose, including substituting who his (his brother who his name is) is OK.

- There is a huge garage which can park two cars. (awkward word choice but the clause is OK)
- It is located at the edge of the mountain, which we can hike and get some woods … (should be where or in which, but students haven't been taught that)
- Master room is the only bed room which you can see the ocean (again, the substitution of which for where/in which is OK)

- You can also enjoy the sunlight's coming through the windows. (correct reduced clause)

- The house is located in the S College Av, which is a peaceful place so that you can concentrate … (don't penalize the missing second comma)

- When you first time see the house that has two floor with big garden. You can foster … (the error is in the punctuation with the subordinator when, not the relative clause)

- The house which is very large is locate in Old Mill Paper (should be non-restrictive with commas, but don't penalize punctuation)

- Before moving, he has to sell their house, which located Sunset Rd. (don't penalize the incorrect use of passive)

Appendix Q

PILOT STUDY INSTRUCTIONAL MATERIALS: PRODUCT REVIEW UNIT

(adapted from Jenny Bixby and Nigel Caplan, *Inside Writing 2*, Oxford University Press, 2014, with permission of the publisher)

Prepare to Write (Tuesday)

Read the questions. Discuss your answers in a small group.

1. Have you ever bought something online? Did you read the reviews? Did they help you choose a product? Did you agree with the reviews after you bought the product?

2. What information do you expect to read in a product review?

3. Have you ever written an online product review for a website like amazon.com or eBay? What did you write?

Writing Models

A product review gives a customer's opinion about the quality and value of a product. Read these online reviews of two different emergency weather radios.

A Great Little Radio!

****** (4/5 stars)**

Finally, a small emergency weather radio that really works! I've owned many radios in this category, but they are all terrible compared to the Atmos-Fear 3000. A good emergency radio needs to work even if you don't use it for a long time. It also needs to receive radio signals from a wide area. The Atmos-Fear gets it right. It looks like a black-and-red brick with a solar panel on the top and a flashlight on one end. It has a hand crank* for manual power, or it can run on batteries or an external power source. The radio starts easily and charges fast. Its reception is excellent: I can hear the weather report from anywhere in my house. The display is easy to read, too. The 3000 comes with a power output for a cell phone, so you can charge your phone if you lose power. The only feature I didn't like was the charging indicator light. It's too bright, so I don't want it on my bedside table at night because it keeps me awake. Apart from that one small problem, I highly recommend this great little radio.

* **hand crank**: a bar and handle in the shape of an L, which you turn to make electricity

You Get What You Pay For

*** (1/5 stars)**

It is important for me to receive weather news because I live in a region that often experiences heavy storms. Last year, we lost power at my house for four days, and I could not get any information. Therefore, I have looked at many emergency radios that could help me in the next storm. After I read all the online reviews, I chose the PowerUp because it is much cheaper than similar radios. Unfortunately, this means it is not very good quality.

The radio is quite large and heavy, which makes it quite inconvenient to carry around the house. It looks like a shoebox with a soft blue display on the front an ugly hand crank on the left side. It comes with a thermometer, flashlight, siren, and reading light. The flashlight is really useful in an emergency, and the reading light is useful, although it is not really necessary on a weather radio. The PowerUp is very flexible because power can come from the hand crank, batteries, or a solar panel. However, the hand crank stopped working after one week, and I saw water under the solar panel. The thermometer was already broken when I opened the box. Even the radio doesn't work properly. It doesn't have a wide range, so I could only pick up one very faint signal even though I tried it in every room in my house. I feel that the Power Up just isn't good quality.

Overall, you get what you pay for. The Power Up is economical, but it's not a good buy. I am returning mine, and I will look for a slightly more expensive weather radio that I can trust.

Analyze the Models

A. Complete the table. What does the reviewer say about these aspects of each radio?

Aspect / Radio	Atmos-Fear 3000	PowerUp
Signal	*Strong*	
Power sources		
Display		
Ease of use		
Other aspects		

B. Put the information in the product reviews in the correct order, 1-8:

__ Star rating

__ Recommendation

_1 Title

__ Good aspects of the radio

__ Overall opinion about the radio

__ Problems with the radio

__ Description of the radio

__ Reason why the writer bought the radio

C. The review of the Atmos-Fear 3000 is written in <u>one</u> paragraph. The review of the PowerUp contains <u>three</u> paragraphs. What information from Activity B is in each paragraph of the PowerUp review?

Paragraph 1: *Reason why the writer bought the radio*

_____

Paragraph 2: _____

_____

_____

Paragraph 3: _____

D. A good review includes both facts and opinions. A fact is something that the writer knows to be true. An opinion, however, is the writer's feelings or thoughts about the product. Are the following sentences about the three emergency radios facts (F) or opinions (O)?

1. _F_ The Atmos-Fear looks like a black-and-red brick.

2. ___ The indicator light is too bright.

3. ___ The radio is easy to program.

4. ____ The lights are awesome.

5. ____ It doesn't have a wide range.

6. ____ It's not a good buy.

E. What facts do the reviewers in the writing models use to support these opinions?

1. The Atmos-Fear's reception is excellent.

The reviewer can hear the weather report from anywhere in the house.

2. The indicator light on the Atmos-Fear is too bright.

_____

3. The PowerUp is not good quality.

_____

_____

4. The PowerUp doesn't have good range.

_____

5. The PowerUp is very flexible.

_____

F. Find examples of these grammar structures. Why does the writer use each one? Share your examples with a small group and compare your answers.

Grammar	Example	Why?
present perfect tense		
past simple tense		
identifying (restrictive) relative clause		
non-identifying (non-restrictive) relative clause		
coordinating conjunction (*and, but, so*)		
subordinating conjunction (*because, after, when, although)*		

Review

Write down the usual order of information of a product review.

Title and Star Rating

_____

_____

_____

_____

_____

Recommendation

TREATMENT SECTIONS: Joint Construction (Wednesday)

1. Do you remember the usual order of information of a product review?

Title and Star Rating

_____

_____

_____

_____

_____

Recommendation

2. As a class, choose a product to review. It doesn't need to be a real product! You might choose a smartphone, a watch, a camera, a calculator, or another device. Give it a brand or model name.

Product: _____

Name: _____

3. Brainstorm good and bad aspects of the product, and share your ideas with the class.

4. Now, work together to write a review of your product. Try to write 2-3 paragraphs. Use the models you read yesterday to help you. You should suggest sentences, and your teacher will discuss them and write the review.

5. Read your review together. Does it have all the information you listed in Question 1?

6. How could you change, improve, or develop the review?

CONTROL CLASSES (Wednesday)

1. Do you remember the usual order of information of a product review?

Title and Star Rating

_____

_____

_____

_____

_____

Recommendation

2. As a class, choose a product to review. It doesn't need to be a real product! You might choose a smartphone, a watch, a camera, a calculator, or another device. Give it a brand or model name.

Product: _____

Name: _____

3. Brainstorm good and bad aspects of the product, and share your ideas with the class.

4. Write a review of the product by yourself. Try to write 2-3 paragraphs. Use the models you read yesterday to help you. (You have 50 minutes.)

5. Swap papers with a partner. Read your partner's review.

6. Discuss these questions together:

- What do you like about your partner's product review?
- Did you include all the important information for a product review? (See Activity 1)
- How could your partner improve the product review?
- Did your partner use relative clauses, describing words, and logical connectors (conjunctions, time markers, and transition words)?
- What grammar mistakes can you find and how could you correct them?
- How could <u>you</u> write a better product review in the future?

INDEPENDENT WRITING (all sections, Thursday)

1. Think about a piece of technology which you own**. Please do not choose the same type of products that you wrote about in class on Tuesday and Wednesday.**

2. Write a review of the product. Try to write 2-3 paragraphs.

3. Check your writing carefully.

4. You have 60 minutes. Please write in pen on the paper provided.

5. Do not use your textbooks, dictionaries, or other resources. Please do not ask your teacher for help.

6. You will receive a writing grade for this assignment.

Good luck!

Appendix R

STRATIFIED SAMPLE OF TREATMENT POSTTESTS

CC10: Below-level proficiency, posttest quality = 1.5

These house have two floors with 6 bedrooms. They are all at the second floor. Two Master Bedrooms and 4 normal bedrooms.

In the First floor, the dining room is link with the kitchen. The Garage is in the right side of the house, and there's a bathroom on the left. the living room is very big.

The whole structure is pertty good. It put all of the bedroom on the scecond floor, it's very logical and science, it they have party it will be distrible when you sleep in your bedroom, but if your bedroom is in the second it's much far away form the living room, it will be very quiet when you have asleep even though there is a party in your house.

But I suggess we should add a door between the kitchen and the dining room, because when you cook the meal it will have some bad smelly and hot gas coming inside the dining room, people feel uncomfortable when they're eating is not good.

The garage is probably a little bit large, but if you want to put some sundries inside and let it become a small entrpot is will be great!

HH12: Below-level language proficiency, posttest quality = 2.75

Gavin Cliven, who is a seccessful charge and own a beautiful and comfortable house in Oregan however. His company decided to move him to the top company in Delaware next month. So he is no idea has to find a new house in Delaware and make these lovely house in selling. Personally, he considers couples who have more than one childern is valuable to own this house.

If go inside the house, The first place grab your eye is a big Garage which provide even three or four car to park. On the first Flower through the main door is a big living room that people can drink some coffee or tea and cose with family members or

friends, It also can play vidio game and have a movie on this part. Cross the door on the left is a middle size but morden Dining Room which is widely connected with a huge kitchen. It's easy to find. The Garage has a door is able to enter the kitchen. It's convenient for people to take out the truch. Behind the meal place and Garage is a longest cooldeck that is a special place to look towards the gardens with different kinds of flower or plants.

On the upstair Floor, This luxiory house has three spacious Bedrooms and a enormous Master Bedroom which are possess private Bathrooms, and every bedroom have enough space for closet to hang out the clothes or put some personal stuff.
Unusual, This house own a fish pool which is near the garden. To be honest, It ready for selling and totally find a new house owner.

C8: Below level proficiency, posttest quality = 3.75

Mr. Colson, who is a famous agent work for Sheild, bought the house near the Sunny beach in LA two years ago. However, the Sheild have a new task for Colson, so he had to selling the house to carry out another mission. This is a two-floors house which is enough space for your live. It provide a chance to meeting a film star because the house only far away from Hollywood two miles. I promise you will be love this house.

This house the most flash-light is the Garage. It provide an enough empty space for you saving something and your car. Once, the ex-owner Colson parked his car "Rola" in the Garage. Looking around the house that surrounding by the Hollywood mountain and near with golf ground. It takes three minutes get to the golf ground by car. You can have a excercise very convenience. Walking in the yard that give you a sense of luxury.

If you enter the house from the big gate, you will be know the siuaition of the 1th floot, which is a simple room don't like the surface of the house. There are four rooms in the 1th floor. It was build up by the living room, dining room, kitchen and bathroom. They are simple and useful. Entering from the door, the first reflect in your eyes's room is living room that buld up by the two parts. So that means an enough space do whatever you like. Such as taking a party with friend, play video games with classmate. It give you a sense of 4-D. Behind the living room is kitche and dining room that also a big space for you. There is a key word is "big space" on the 1th floor.

There are four bedrooms on the 2th floor. The left side bild up by the big bedrooms. They also have an enough space. You can put a big bed in the bedroom, on which are two windows in the bedroom at least. It provide a lot of sunshine from the windows to the bedrooms. It will be a comfortable and healthy bedroom. Looking at the right side

on the 2th floor. It is a master bathroom bild up by the part of master bedroom. You can enjoy the view of the Hollywood or have a cup of coffe on the balcony. It make you during a relax time.

Finally, do you know the ex-owner agent Colson? He is a director of Sheild. Sometimes superhero will visit the house. Such as Hock, iron man, Captain of America. Colson with them so happy live in the house. I wish you feeling happy, too!

G5: On-level language proficiency, quality score = 1.5

Dr. Stevens built this a big luxury house in Newark, DE, when he got retired ten years ago. He has a big account in the bank because he has own buisniss, so he decided to build a wounderful home to rest after a long years of work.

He chose fantastic location, which you can see trees and flowers around the house, so you can breath healthy every time and enjoy with a nature view.

Inside the house include two floors and garage which you can park a car and save house stuffs. You can inter to the first floor by main entry door and see a big living room in the lift and the bathroom in the right. The dining room beyond the living room. Beyond the bathroom you can see kitchen, which you can cook and make a coffee and tea every time. The deck beyond the dining room and kitchen.

Second floor has three rooms, and master room which has a master bathroom and closet.

If you want to live in a big luxury house and feel healthy decide now to buy Dr Stevens' house.

E6: On-level language proficiency, quality = 3

This is sunshine house which I lived in 15 years in Los Angles. When I was 6 years old, I leave my hometown with my family to America. Because my father get higher range in his company and give him this pretty house and two same cars. The prey house that have a nice location is near to the center of Los Angles, and drive car of one hour to ocean, there have clear beach and cut fish.

Walking through three meters stair to come to house's door. On your right side, there is a small tea table. People can drink tea and chat with their friends. That's important

to a house. the door is 3 meters high with white color, on the top of the door has a small tidy bear. It's mine. I'm very happy when every time I come to home to see it. I hope everyone will like it if they have children.

Come in the house, you will see a light that can spin and change color is on you head. On your right side, it is a small bathroom for friends. Turn left to living room, the 3 meters square sceen on the wall. People can invite friends to movie time on Friday's evening, sit on white and black soft sofa and drink a little bit beer until Saturday's morning. Next is dining room, there is modern table than can enough for 12 person, and a flower on center point. Looking to your lift, it is a golden fire place, it is too convinent for people to cooking different food at the same time.

Going upstair, there is three bedroom and one master bedroom. My sister and I both have own ourselves' room when my family lived in. The biger one is for my sister and the medium is for me. We have some distance to our bather. And the other bedroom is for some relatives if they come to our house. Of course, the master room that has master bathroom for parents. Maybe people will interest in our four bed that spends a lot of money is from Europen. And I very love it, I can sleep with comfortable bed for 14 hours on weekend, and you do not fell press. And in bathroom, everying is pink because I think it can make bathroom brighter than other colors.

I have two old grandparents, my parent should go back to my country to take care them. Since their average year about 75. Our family very love this house. We want to find a lucky man to buy it. This is also a good choice to invest. I think it will be increased value in 5 years.

H2: On-level language proficiency, quality = 4.25

INTRODUCTION OF A HOUSE

Today. I want to describe a house which has two floors. I am used to calling to "Seasons". "Seasons" locates at the corner of a near-coast city - "Dalian", which is a patient and peaceful city without any noisy about confliction. Of course, it is a worthful choice if you try living here.

"Seasons" is on an island near the continent. The deepth of the water here is not much but the water here looked dark blue. You may be curious about the reason for which the color of the sea seemed so different. Maybe complex material causes this amazing sight. So when you sit on a chair opposite to the continent, you can imagine that you're doing a voyage on the wonderful sea. It sounds exciting, right?

Okay, let's pay more attention to the details from the "Seasons". The house called "Seasons" due to the fact that it has wall which can change the color of it with this change of different seasons. For example, it is green in spring, pink in summer, golden in autumn and white in winter. Also, you can change the color whatever you like.

On the first floor, A huge garage takes the most place of the house so that you can park almost four big-sized car. Together with that garage that unbelievable living room may let you crazy, too. The monitor of the television is fixed on the five different walls. In other words, you can feel like yourself living in a fiction world. Turn off the lights, you can release your mind to flying in the universe or exploring in the ocean or something else. Just search the Internet and find what you want, you will be there in a second. A bathroom is near the living room so if you want to take a shower, that is a convinent path. If you are hungry, don't worry about that, that the kitchen stores everything you want which adapts to this season. There is an advanced machine which can cook almost all of the western meals automatically. After cooking, it will pass cooked food into dining room directly. Then help yourself to delicious foods!

If you feel tired, please go upstairs, four different style of bedrooms are waiting for you, included a master bedroom. As usual, that master bedroom has a insolent bathroom for use. One side of walls faced sea don't have wall, instead, it is replaced by a whole window. So it is easy to enjoy yourself with the scenery. In the other part of 2nd floor, the blocks of each rooms are flexible - they can be put off! Turn around the beds, you can find that they are changed in to bookshelf, and the floor can rise up to be a table. Right, it is a library! To save place, A tiny bathroom is in the one side of 2nd floor. It can clean itself and always be neat.

These days, They are preparing to build an elevator in order to make old people go upstairs easily. After that, I think you can interest the "Seasons" a lot.

C3: Above-level language proficiency, quality = 2.5

Miss Smith, who is an owner of film company, bought the house three years ago and expected to live for long years; however, her life took unexpected turn last year when her film company opened a new place in another country, so she decided to sell her charming house. Away from the main roads, the house is located in Neark. It provides silent and pleasant atmosphere for relaxing. It is easy to forget that you are few minutes away from noise of city.

The backyard of house is surrounded by trees which provides you fresh air. The perfect plan of luxury house includes two floor and provides you comfortable using.

There is a big garage on the right of the house which has enough space for parking three cars. The entrance of the house leads through a big hallway. There is a living room on the left side of the room which is decorated excellently. There is a kitchen and a dining room on back of the first floor which have two big windows which give you perfect view of backyard while cooking and enjoying your meal.

When you go upstairs, you see a master bedroom which is decorated pink-colored curtains, white floor, and has a big bathroom. When you cross the hallway, you see three medium-sized bedrooms. One of them which has a tiny bathroom looks front side of the house and other look back side of the house. The unique house is ready to welcome new owners.

E2: Above-level language proficiency, quality = 3.25

Jack brought a spacious house which is located at Hollywood three years ago. However, he decided to move to New York city because he got a promotion. Whatever, this beautiful house which is benefical for big family to live is going to sell on newspaper and Facebook.

The luxurious house which color is yellow is near by a clean river. There is a huge place enough for several cars to park. Many beautiful trees are around by this large and elegant house. When you walk slowly into the house, you will notice that there is a splendid living room on the left. In this living room, you will have enough space to play or chat with your friends. In addition, please walking further, you can see immidiately a regular size dinning room which it is a wonderful place to have dinner with your lovely and easy-doing family. The kitchen which has plenty of tools for cooking is near by that amazing dinnig room. There is a red countertop for people who fancy to cut some meats and wash some vegetables in the kitchen. By the way, there is a minor Bathroom which is prepared for guests or friends near by kitchen.

When you come up to the second floor, you will be shock and suprise. Both enormuous Master bedroom and bathroom are on your left. When you walk in Master bedroom which throughing the window can unbelievable view, and your mood will be very delightful and exciting. Therefore, this room is idea for parent or cute couple. If you turn right, there are four rooms which are completely different size. These rooms are perfect for teenages who want to have private room when they are in highschool. These room are able to have desks and chairs for their studying.

In brief, this house is filled with my memories and also delicate decoration will be satisfied. This fantactis house is ready for a lucky family.

EE2: Above-level language proficiency quality = 4.75

A House For Rich Man

Mr. Cook, who is the most rich person in this city, was gone. He doesn't have any children, so his brother got this wonderful two-story house and wants to sell it. The fantastic house used so many rare materials to build such as gold, silver and diamond. Therefor, if you are rich man, you have better to buy it before others.

This expensive house located on the center of the city. Eventhough this is the center of the city, the environment between this house is amazing. There is a 3 km2 garden around the house, so you could have very hidden and private space when you live in there. The enormous garage can hold 5 cars. If you don't want to park your cars in garage, you could park those everywhere in your garden. The garden has so many kinds of flowers and trees. There is a proffesional servant to take care of that garden, and you can hire when you buy the house. Because of the wild space, you could hold any party in your yard even a soccer game.

The first floor of the house is enough big to explore, but you should be careful because there are some paintings, arts, and antique in the living room. The handmade tea table is made by a chinese who is dead 300 hundred years ago. The kitchen and dining room are also old-fashion. Everything in the kitchen and the dining room is wood even the pot and the ice box. There are nothing morden in this house. Because of the magical design, these wood will not destroy by fire or heat, so you can enjoy to use all of these as much as you could. Behind the dining room and the kitchen is a long deck. You could take a BBQ in the deck and enjoy the sunset together.

The second floor is bedroom castle. In the master bedroom, there is a 5x10m2 bed, which can sleep more than 50 people. You can sleep everywhere in your bed, and you don't need worry about you will fall to the floor anymore. The master bathroom is colorful which has a amazing bathtub. The bathtub, which can hold 100 person at the same time, just for you and your wife. Therefore, you can play everything with your wife in this magical bathtub. There are three bedroom and a bathroom for your children and guest. Eventhough the bedrooms which is for children and guest is small than the master bedroom, the bedrooms have the same standard with your master bedroom such as gold bathtub, silver lamp and diamond candle which is the candle mix with diamond. This charming house is available before the second buyer, so if you are rich man, you have must to call us and move in.

Appendix S

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