Exploring Reading and Writing Connections in the Synthesis Writing of Multilingual Students in a Second Language Writing Classroom

Dissertation

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Abstract

Writing from sources is viewed as a fundamental component of academic literacy as well as developing connections between reading and writing. An especially challenging task of source-based writing is synthesizing, which requires careful selection, organization and integration of sources. Given the significance of synthesizing in developing multilingual students’ academic literacy in English, this study examined the teaching and learning of synthesis writing in a university L2 composition course. Within a multidimensional view of literacy and discourses of writing, I conducted classroom-based qualitative multiple case studies, in which both the teacher’s experience with synthesis instruction and four Chinese undergraduate students’ engagement in synthesis writing were examined. Guided by the constructivist model of discourse synthesis–organizing, selecting and connecting (Spivey, 1990, 1997)–from the L1 composition literature, I investigated the teacher’s task representation of synthesis, the students’ developmental trajectories of learning to write a synthesis, and the individual and contextual factors that contributed to their varied writing abilities while approaching synthesis tasks.

Over a five-month period comprising one academic semester, I collected multiple sources of data, including semi-structured interviews, stimulated-recall protocols, writing
samples, recordings of teacher-student writing tutorials, classroom observation field notes, course-related documents and artifacts, and surveys. These data were analyzed inductively and triangulated to explore different aspects of the teaching and learning of synthesis writing including: (1) the teacher’s task representation of synthesis, (2) the students’ perceptions of synthesis tasks, (3) the students’ task representations of synthesis, (4) the products and processes of the students’ synthesis writing, (5) the individual and contextual variables impacting on students’ efforts at synthesizing.

The findings of the study revealed that both the teacher’s task representation of synthesis and the students’ products and processes of synthesis writing involved the three operations—organizing, selecting and connecting—albeit to various degrees among the student participants. Thus, it appears that the constructivist model of discourse synthesis from the L1 domain can be applied to the L2 context in teaching and researching synthesis writing; however, it should be reevaluated with careful consideration of L2 students’ understanding of sources, given that source use had a strong impact on the quality of their synthesis papers. Furthermore, the study confirmed that reading abilities and strategies were important predictors for L2 students’ success in synthesis writing, which underscored the interconnectedness of reading and writing in synthesizing. The study also found that the L2 writers’ motivation to learn academic writing and some contextual factors, such as classroom instruction, tutorial interaction, and prior writing
knowledge, were important variables to consider when examining the complex interaction between the teaching and learning of synthesis. This research has thus extended our understanding about L2 reading-writing connections through a close examination of the sophisticated literacy acts of synthesizing performed by the student participants in the study. The study has also contributed to the L2 source-based writing and literacy research by bringing a focus on synthesis writing within an authentic classroom setting and taking a transfer perspective to study learning over time. Indeed, transfer played an important role in exploring the students’ encounters with synthesis writing.
Dedicated to my parents, 赵祥润，贺乾芬

& my angel
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Chapter 1

Introduction

In the academic context, writing is considered as an important tool to learn academic language and content, to demonstrate one’s knowledge and understanding, to develop academic literacy skills and critical thinking abilities, and to evaluate students’ learning outcomes. Among many aspects of academic writing, writing from sources is viewed as a fundamental component of academic composing and has drawn a lot of research attention (Flower, 1990a; Greene, 1993, 1995; Kennedy, 1985; Polio & Shi, 2012; Shaw & Pecorari, 2013; Spivey, 1990, 1997). Student writers’ abilities to create appropriate intertextual links are seen as crucial to their academic success. Nonetheless, the intertextuality practices of academic writing involve a complex set of literacy skills and a great amount of academic and disciplinary knowledge. Thus, it is not surprising that source-based writing stands as a complicated and difficult task for many university students, particularly second language (L2) writers.

Source-based writing tasks can take various forms, such as summary writing, synthesis writing, response essays, research papers, literature reviews, etc. According to the survey-based inquiries on writing assignments in the university context (Leki & Carson, 1994, 1997) and several important case studies (Leki, 2007; Spack, 1997), the
commonly assigned academic writing tasks in university courses often require working with sources—comprehension, evaluation, and integration of source texts. One challenging task of source-based writing is synthesis writing, which is based on multiple source texts and requires careful selection, organization, and integration of source texts. It has been considered to be cognitively demanding and socially complex due to the interactive and recursive reading and writing processes involved (Kucer, 1985; McGinley, 1992; Spivey, 1990).

In the English as a first language (L1) written composition field, synthesis writing has been examined either under the umbrella term of reading-to-write (Ackerman, 1991; Flower 1990a) or composing-from-sources (Greene, 1993, 1995; McGinley, 1992; Spivey, 1984, 1990, 1991, 1997; Spivey & King, 1989). In fact, these two concepts share a lot of commonalities. As Spivey and King (1989) noted, reading-to-write tasks are hybrid tasks of both discourse comprehension and discourse production. Likewise, the acts of composing from sources, as Spivey (1990) argued, are “hybrid acts of literacy” (p. 259) in which reading and writing influence each other interdependently. Along these lines, Spivey examined the hybrid nature of composing from sources through a reading-to-write task which she called discourse synthesis, which represents an especially noteworthy construct for source-based writing.

Discourse synthesis is defined as the process in which readers/writers create their own texts by organizing, selecting, and connecting content from multiple source texts (Spivey, 1984, 1990, 1991, 1997; Spivey & King, 1989). Spivey proposed a constructivist model to examine the operations (or sub-processes) of discourse synthesis, which include
organization, selection, and connection. Her thorough and intensive research on discourse synthesis not only offered a theoretical framework to construe reading-writing relationships, but also provided a good empirical base from which to study synthesis writing, a hybrid and complex reading-to-write task. The present study was motivated by Spivey’s theoretical framework as well as some important findings from her and her colleagues’ research.

In the English as a second language (L2) writing field, source use in academic writing has long attracted the interest of L2 writing scholars (Currie, 1998; Flowerdew & Li, 2007; Li & Casanave, 2012; Pecorari, 2003, 2008; Pennycook, 1996; Polio & Shi, 2012; Shaw & Pecorari, 2013; Shi, 2004, 2010, 2012). The investigation of source use in L2 writing has explored issues of plagiarism, textual borrowing or appropriation, and intertextuality practices. Various types of academic writing activities, including summary, synthesis, research paper, literature review, and thesis and dissertation, have been examined with L2 writers from different educational, cultural, and disciplinary backgrounds. As some seminal case studies (Leki, 2007; Spack, 1997) and a recent review article (Grabe & Zhang, 2013) have indicated, synthesis of multiple sources (or synthesizing information from multiple source texts) is a commonly assigned writing task in university academic coursework. However, synthesis writing receives considerably less research and pedagogical attention as compared to other academic writing assignments, such as summary writing (Shi, 2004; Keck, 2006, 2014; Macbeth, 2006, 2010) and paraphrasing (Hirvela & Du, 2013; Pecorari, 2003, 2008), despite the importance it is accorded in L2 writing courses. Given its commonality and importance to
L2 students’ academic literacy development, it is worthwhile to explore synthesis writing in depth and understand how L2 students integrate reading and writing in such a complex and challenging task.

**Statement of the Problems**

In the L1 reading and written composition fields, research on reading-writing connections formed a rich theoretical base from the 1980s to 1990s (Flower, 1990a, 1990b; Kucer, 1985; Spivey, 1990; Stotsky, 1983; Tierney & Pearson, 1983). Scholars of reading and written composition have generally examined reading-writing relationships though the teaching and learning of reading-to-write or integrated writing tasks. Among a wide range of academic tasks, discourse synthesis has drawn some research attention (Ackerman, 1991; Greene, 1993, 1995; McGinley, 1992; Spivey, 1984, 1991, 1997, Spivey & King, 1989). Mostly guided by a constructivist model of reading, the above studies have investigated various factors involved in the process and product of composing a discourse synthesis; these include the role of prior disciplinary knowledge (Ackerman, 1991; Spivey, 1997), task representation (Flower, 1990b; Greene, 1993, 1995), task type (Spivey, 1991); reading ability and educational levels (Kennedy, 1985; Spivey, 1984; Spivey & King, 1989).

Spivey’s (1984) pioneering research is particularly important to understand the comprehending and composing processes of discourse synthesis. In her seminal article, Spivey (1990) drew on the research of reading processes—organizing, selecting, and connecting—and closely explicated the role of each of these operations in composing from sources. She examined how readers/writers deal with source texts to construct meanings
and create their own texts, which she called “the transformations they perform” (p. 260) from both sides of the reading-writing continuum. **Organizing** refers to the transformation when readers/writers create mental representations to organize text content and construct meaning in their own texts. **Selecting** is the operation of choosing important and relevant information from the sources. **Connecting** refers to the textual transformation in which readers/writers interweave multiple pieces of source texts and connect them to their prior knowledge. In her book, Spivey (1997) reexamined the three textual transformations—organization, selection and connection—from the perspective of different writing tasks, such as summarizing, reporting on a topic, proposing a solution, commenting on a topic, and making an argument. Her studies have shown that on the one hand, discourse synthesis is a fundamental literacy act which is “the very basis of reading, writing, and learning in almost any domain of knowledge” (p. 191); on the other hand, this hybrid literacy act has often been neglected or partially examined in empirical research. Thus, not only can research on discourse synthesis contribute to the theories of reading-writing connections, it will also inform pedagogical practices of integrated reading-writing instruction given the fact that source-based writing has been considered as a powerful tool to learn academic contents.

Deeply influenced by their L1 counterparts, L2 reading and writing researchers and practitioners have been consistently interested in reading-writing connections (Belcher & Hirvela, 2001; Carson & Leki, 1993; Hirvela, 2004) since L2 writing instruction began to move toward a source-based writing orientation in the early 1990s. Reacting against earlier years of L2 writing instruction in which reading and writing were
treated separately, these scholars emphasized the important role of reading in the L2 composition classroom and suggested using reading as a mean of teaching writing. In their edited volume, Belcher and Hirvela (2001) highlighted several important themes in linking multiple forms of literacy. Among these key areas, research on textual borrowing and source use has developed into a viable line of inquiry in L2 writing scholarship (Hirvela & Du, 2013; Polio & Shi, 2012; Shaw & Pecorari, 2013; Shi, 2004, 2010, 2012). The reason that writing from sources, especially the act of reading for writing, has received so much attention is that source use is now recognized as being at the heart of academic literacy, so much so that it is now an important part of the assessment of L2 writing ability, as reflected in particular in the integrated reading-writing tasks employed in the Test of English as a Foreign Language (TOEFL) that is administered throughout the world.

As continuing endeavors to develop the theory and pedagogy of L2 integrated reading and writing instruction, Hirvela’s (2004) book-length treatment of reading and writing connections is an important publication in the field. In his book, Hirvela provided a historical and thematic overview of reading-writing connections in the L2 context, which was heavily influenced by L1 research but now constitutes an independent domain of scholarship. He explicated the theoretical foundations of reading-writing relations from the reader response theory and explored multiple dimensions and pedagogical possibilities of connecting reading and writing (e.g., both writing-for-reading and reading-for-writing models) in the L2 writing classroom. He argued that synthesis writing is especially important and involves a series of fundamental literacy acts, which require
that “readers/writers identify and explain issues, themes, relationships, and so forth, arising from more than one text” (p. 93). In the comprehending and composing processes, readers/writers interact with sources in complex and recursive manners. To understand the synergistic relationship between reading and writing, Hirvela (2004) argued that:

> Synthesizing, as a teaching and learning tool, provides rich opportunities for L2 students to develop their reading and writing abilities. By the same token, synthesizing is especially useful in drawing students’ attention to connections between reading and writing. (p. 93)

Although the importance of L2 reading-writing relationships has been widely recognized, it is still a relatively underexplored and under-theorized area (Grabe & Zhang, 2013). At the same time, and as Grabe and Zhang also observe, when such relationships are studied as well as taught, it is source-based writing that serves as the center of attention. This includes synthesis writing, a sophisticated constellation of reading and writing skills that deserves more research attention. In that light, this study sought to contribute to the literature on reading and writing connections through a close investigation of L2 writers’ development while completing a hybrid literacy task: synthesizing.

On the whole, given the importance of reading-writing integration and a still relatively small research base, there is a need for further empirical exploration of how L2 teachers and students conceptualize and approach synthesis tasks in an academic context. From a teaching perspective, it is valuable to examine what pedagogical practices are employed and which may prove effective in L2 synthesis writing instruction. From a learning perspective, it is useful to investigate L2 students’ developmental trajectories of learning to integrate multiple source texts and to construct meaning and academic voices in their own texts.
The second area of research that may shed light on the learning dimension of L2 reading-writing relationships is transfer of learning. One common and fundamental goal of writing education is that L2 students can apply what they have learned from one writing task or context to another, either explicitly or implicitly. In other words, the ultimate aim of L2 writing education is to promote learning transfer, which “occurs when learning in one context or with one set of materials impacts on performance in another context or with other related materials” (Perkins & Salomon, 1992, p. 2). Under the influence of research on learning transfer from educational psychology, a growing number of studies in L2 education have examined the issues of L2 learning transfer, for instance, transfer from ESL composition course to other university content courses (Currie, 1999; James, 2006, 2008, 2009, 2010a, 2010b, 2012). These studies have concluded that a number of factors affect L2 students’ transfer of learning from one writing context to another, for instance, students’ representations of the writing tasks (James, 2008, 2009); contextual factors, including disciplinary context, task types, and support or lack of support from writing teachers and content courses instructors (Currie, 1999; James, 2010a, 2010b); and affective variables such as motivations to transfer (James, 2012). Lately, DePalma and Ringer (2011, 2013) discussed the notion of L2 “adaptive transfer,” which values the reuse and reshaping of prior writing knowledge in new writing contexts.

However, little research has investigated in detail how learning transfer occurs or does not occur in the process of composing complex reading-to-write tasks such as a synthesis in L2 writing classrooms. In connection with the previous literature on reading-
writing connections, it appears that almost no studies have examined the transfer from reading (or comprehending) to writing (or composing) as well as the opposite direction, from writing to reading. Because synthesis writing involves a complex set of literacy skills and practices, such as comprehending the source texts, summarizing and paraphrasing the texts, evaluating and responding to the sources, developing critical stances, and synthesizing multiple sources of information, it is valuable to investigate how L2 students transfer skills and different domains of knowledge from one writing-related context to another (Hirvela, in press).

The third area of research that motivated the current study was L2 writing assessment. In recent years, integrated reading-writing tasks have been widely employed in the Test of English as a Foreign Language (TOEFL) around the world (see Plakans & Gebril, 2013; Yang & Plakans, 2013). As a matter of fact, university writing programs in North America began increasingly to employ reading-to-write tasks to assess writing for academic purposes (Plakans, 2008, 2009a, 2009b, 2010; Plakans & Gebril, 2012). In contrast to independent writing-only tasks, integrated reading-writing tasks differ from them in several important ways:

a) The discourse features of integrated and independent tasks differ in terms of lexical and syntactic complexities, rhetoric such as how arguments are presented, and pragmatic issues such as how personal voice is constructed (Cumming, Kantor, Baba, Erdosy, Eouanzoui, & James, 2005).

b) They also differ in respect to the composing process (Plakans, 2008), task representation (Plakans, 2010), strategy use including reading strategies in

c) In integrated reading-writing tasks, second language proficiency is considered crucial to successfully perform the task, which may indicate a threshold effect of L2 proficiency (Cumming, 2013; Plakans & Gebril, 2012; Gebril & Plakans, 2013).

The growing interests in integrated reading-writing tasks and assessment corroborate the orientation for more source-based and text-responsible writing in academic contexts. Thus, how L2 learners develop academic literacy abilities that bridge multiple skills, including reading, writing, and listening, remains a key concern not only to L2 writing assessors but also to L2 literacy educators.

**Research Gaps**

In sum, a general review of both L1 and L2 writing research at this point has revealed that only a partial picture exists of L2 reading-writing connections and L2 integrated reading-writing instruction, particularly with regard to synthesis writing. Although Spivey’s constructivist model of discourse synthesis is very useful to understand the sub-processes of composing from sources, it must be noted that her model was only intended for L1 writers. Thus, little is known about how or whether Spivey’s model of discourse synthesis applies to L2 writers. Despite the fact that a few L2 writing researchers have began to employ this model in the L2 context, these studies were conducted in a relatively controlled manner, using either one-shot writing tests (Plakans, 2009a; Plakans & Gebril, 2012; Yang & Plakans, 2012) or an experimental design.
(Zhang, 2013). Therefore, how L2 undergraduate students perform synthesis tasks in naturalistic contexts remains largely unexplored. Furthermore, the field of L2 writing lacks a useful theoretical model of synthesis and reading-writing connections that does what Spivey’s model has for the L1 composition field. Empirical evidence is needed to examine whether the operations that Spivey identified—organizing, selecting and connecting—are also applicable to L2 students, or if they operate in exactly the same ways as L1 writers in this regard.

Furthermore, research on intercultural rhetoric has provided good reasons to think that L2 students may approach synthesis differently than L1 writers due to differences in their educational, cultural, and rhetorical backgrounds (Belcher, 2014). This cross-cultural perspective also attends to a variety of social and contextual factors that may influence how L2 writers handle synthesis, such as their L1 literacy experience, L2 writing experience, and cultural and rhetorical issues. Moreover, another theoretical lens that might shed light on both the cognitive and social dimensions of synthesis writing, as briefly mentioned earlier, is the perspective of L2 learning transfer. Since synthesis represents “hybrid acts of literacy” (Spivey, 1990, p. 259), a wide range of reading strategies (e.g., global, problem-solving, mining strategies) and source-based writing skills (e.g., summarizing, paraphrasing, quoting) are involved in the synthesizing process. L2 students may have learned these literacy components separately or from their previous schooling. Nevertheless, which skills and knowledge they carry over and how they transfer them from previous writing contexts to the hybrid synthesis tasks in L2 writing courses have not been explored. Thus, taking on a L2 learning transfer perspective can
further deepen our understanding about the comprehending and composing processes of synthesis from a developmental perspective.

**Objectives of the Study**

Drawing from the perspectives and gaps just noted, the objectives of this study were: (1) to examine reading and writing connections, both theoretically and pedagogically, through deeper understanding of L2 undergraduate students’ academic synthesis writing; (2) to enrich the existing literature on L2 source-based writing by investigating synthesizing; (3) to explore L2 students’ development of synthesis writing ability from a learning transfer perspective, especially how L2 undergraduate students transfer (or do not transfer) various language skills and prior writing knowledge while completing synthesis tasks based on multiple source texts.

**Research Questions**

To pursue the objectives of the study just cited, the overarching question that this study addressed is: How do the L2 writing teacher and L2 undergraduate students conceptualize and approach synthesis writing in a university L2 academic writing course? From a teaching perspective, I explored the teacher’s progress in learning-to-teach synthesis writing. From a learning point of view, I investigate the students’ developments in learning-to-write synthesis papers and the interactions between their learning and teaching. More specifically, this study investigated three clusters of research questions.

The first cluster focuses on the teacher’s task representation of synthesis and pedagogical approaches to synthesis writing:
1. What is the teacher’s task representation of synthesis in a university L2 academic writing course?
2. How does the teacher’s representation of synthesis tasks change throughout the course?
3. How do the teacher’s task representation of synthesis and the institutional context shape her pedagogical approaches to synthesis writing?

The second cluster deals with the students’ representations of synthesis tasks and their developments of synthesizing abilities:
4. What are the students’ task representations of synthesis?
5. How do the strong and weak writers’ representations of synthesis writing influence their performances in the synthesis tasks?
6. During their reading and writing processes, how do the strong and weak writers develop different abilities in synthesizing?

Finally, the third cluster explores the various factors that contribute to the strong and weak writers’ varied task representations of synthesis and different writing abilities:
7. What individual factors contribute to the strong and weak writers’ different performances in the synthesis tasks?
8. What contextual factors contribute to the strong and weak writers’ diverse learning experiences of synthesis writing? For example, the classroom instruction, the tutorial interaction, the writers’ prior writing knowledge?
9. What do the L2 writers’ diverse learning experiences with synthesis writing reveal about L2 reading and writing connections and L2 writing pedagogy?
Significance of the Study

This study attempts to deepen our understanding about L2 reading and writing connections through examining a common but complex reading-to-write task—synthesis writing. By situating the present study in the scope of L2 reading-writing connections (as well as L2 source-based writing) and bringing in a L2 learning transfer perspective, the present study is significant in several ways.

First, although the importance of L2 reading-writing connections has been widely recognized, it still remains an underexplored area both in theory and in practice (Belcher & Hirvela, 2001; Grabe & Zhang, 2013; Hirvela, 2004). Among the many aspects of reading-writing relationships, synthesizing involves a sophisticated constellation of reading and writing skills, and it thus offers a great opportunity to explore such connections. However, there is a lack of a theoretical model of synthesis in the L2 domain and a lack of empirical evidence to determine whether Spivey’s discourse synthesis model that is useful for L1 writers is also applicable to L2 writers. What’s more, research on how integrated reading-writing instruction actually facilitates L2 students’ ability to compose from sources is also needed. Thus, an examination of L2 students’ synthesis writing will contribute to both theory building and pedagogical practices of synthesis (and reading-writing connections) in the L2 context.

Second, the existing research on writing from sources has yielded fruitful findings about source use in the L2 where English is the target language. Previous studies have explored: textual borrowing or appropriation (Polio & Shi, 2012; Shi, 2004), citation behaviors and practices (Petrić & Harwood, 2013; Shi, 2010), summarizing (Keck, 2006,
2014; Macbeth, 2006, 2010), paraphrasing (Hirvela & Du, 2013; Shi, 2012), and plagiarism (Bloch, 2012; Li & Casanave, 2012; Pecorari, 2003, 2008). However, the reading end of source-based writing has been underexplored in the reading-writing continuum (McCulloch, 2013). Given the importance of reading-writing integration and the lack of inquiry into synthesizing, more research is needed to understand how L2 learners synthesize multiple source texts and integrate source information to fit into their own texts. Therefore, a study on L2 synthesis writing will extend our understanding about L2 source-based writing from a reading-based orientation.

Finally, the fundamental goal of L2 writing education is to promote learning transfer across different writing tasks and contexts. While performing literacy acts as complex as synthesis writing, L2 students need to utilize a set of literacy skills and practices to complete the task. Thus, it is crucial to understand which skills and knowledge they attend to and how they transfer various skills, strategies, prior knowledge and instruction to synthesis tasks. Thus, adding a lens of L2 learning transfer will shed more light on both the cognitive and social factors being involved in synthesizing as well as the reciprocal relationships between reading and writing.

**Definitions of Key Terms**

It is essential to define key terms and concepts at the beginning of this dissertation because they frame the study and also help in understanding the study itself. Certain terms may have broader or narrower connotations in other research; the following definitions demonstrate how these concepts are operationalized in the present study.

**Source-based writing.** Source-based writing, also known as writing-from-
sources or composing-from-sources, is an important area of academic writing. It is composed through the juxtaposition of different source texts, and can take various forms, including summarizing, synthesizing, responding, reporting on a topic, proposing a solution, critiquing, and making an argument. Appropriate use of sources and creating proper intertextual links are considered to be crucial in source-based writing (Polio & Shi, 2012; Shaw & Pecorari, 2013).

**Reading-to-write.** Reading-to-write is defined by Linda Flower (1990a) as “the goal-directed activity of reading in order to write” (p. 5, emphasis in original). Flower used the hyphenated term reading-to-write in effort to underline the interaction between reading and writing. She made a distinction between reading-to-understand “in which writing is merely a tool for testing recall of content” (p. 4) and reading-to-write “in which information from a source text is not only understood on its own terms, but is transformed in the hands of the writer” (p. 4). Flower’s distinction paralleled with Bereiter and Scardamalia’s (1987) two key concepts of “knowledge telling” and “knowledge transforming.” In addition, reading-to-write tasks are also called integrated writing tasks when a certain amount of reading is required in writing (Plakans, 2008, 2009a, 2009b); nevertheless, other forms of integrated writing tasks may involve reading, listening, and writing together (Yang & Plakans, 2012).

**Synthesis writing.** Synthesis writing is an essential type of source-based writing. It is also a hybrid and complex reading-to-write task. To synthesize means to select or extract important ideas and relevant information from multiple sources, to organize these information using proper mental representations (e.g., look for an overarching theme,
compare-contrast, problem-solution, cause-effect etc.), and to connect all the ideas to construct meanings in the new texts.

**Discourse synthesis.** Discourse synthesis is the term coined by Nancy Nelson Spivey (1984, 1990, 1997) based on her research on L1 students’ approach to synthesis tasks in secondary school and university. Spivey (1984) defined discourse synthesis as follows:

[Discourse synthesis is] an active process of text construction in which a writer reads textual sources on a particular topic, selects some of the available information from the sources, and combines elements in a new way, providing an overall organization as well as connectivity among related ideas. (p. 1)

Spivey (1990) considered two kinds of sources—the immediate source texts and the writers’ prior knowledge—though sometimes it might be difficult to draw a clear distinction between the two. She also used the term to refer to writing that draws from source texts rather directly. In discourse synthesis, readers/writers select, organize, and connect information from source texts as they create their own new texts.

**Transfer of learning.** Transfer of learning, or learning transfer, was defined originally by educational psychologists David Perkins and Gavriel Salomon. They stated:

Transfer of learning occurs when learning in one context enhances (positive transfer) or undermines (negative transfer) a related performance in another context. Transfer includes near transfer (to closely related contexts and performances) and far transfer (to rather different contexts and performances). Transfer is crucial to education, which generally aspires to impact on contexts quite different from the context of learning. (Perkins & Salomon, 1992, pp. 1-2)


**Task representation.** Task representation refers to “an interpretative process that
translates the rhetorical situation–as the writer reads it–into the act of composing” (Flower, 1990b, p. 35). Because of the hybrid nature of reading-to-write tasks, how L2 students actually conceptualize and interpret synthesis writing can exert a great influence on their writing processes and products.

**Academic literacy.** In the field of second language literacy studies, Leki (2007) considered that “[academic literacy] is not limited to the technology of reading and writing, a unitary skill, or a strictly cognitive activity but, rather, includes the activity of interpretation and production of a variety of texts [academic and discipline-based texts] often within important social contexts” (p. 3). Drawing on this definition, both cognitive and social views of academic literacy are adopted in this study. For a detailed definition of academic literacy, see the discussion in Chapter 2.

**L2 students/ESL/Multilingual students.** L2/ESL students refer to nonnative English speaking students who learned English as a second language at different points in their lives. In some cases, L2 students may acquire more than two additional languages, and English might not be their default second language. In such cases, the term “multilingual students” might be more appropriate to describe this student population. In this study, these three terms are used interchangeably.

**Assumptions Guiding the Study**

In addition to the key terms and concepts defined as above, the study was guided by several key assumptions. They were:

(1) Synthesis writing is a complex literacy act, which involves various literacy skills and practices, and rhetorical knowledge about reading and writing.
(2) Discourse synthesis framework (and the constructivist model of reading and writing) is worth exploring in the areas of L2 writing and literacy.

(3) Synthesis writing is important for L2/ESL/multilingual students because it is at the heart of their academic literacy development in English.

(4) L2 students can recall and articulate their learning experiences, as well as their comprehending and composing processes of synthesis writing.

(5) L2 students can reflect upon their previous literacy experiences in L1 and L2, and use their prior writing knowledge and classroom writing instruction to acquire a new literacy task, such as synthesis.

(6) The teacher’s and the students’ representations of synthesis can be observed and studied based on the strategies and decisions they made in the teaching and learning of synthesis writing.

**Organization and Overview of Chapters**

This dissertation consists of eight chapters. This first chapter introduces the current study by identifying the research problems and gaps it addressed, articulating the objectives and research questions it explored, and defining the key terms, concepts and assumptions that guided the study. In Chapter 2, I review the pertinent literature, including the theoretical framework and empirical studies of synthesis writing in both the L1 and L2 composition and literacy areas. Chapter 3 discusses why I choose an embedded qualitative multiple case studies approach for this study and how I employed multiple research methods to collect, analyze and interpret the data.

Next, Chapters 4, 5, 6 and 7 form the finding sections of this dissertation. Chapter
4 reports findings and issues of the classroom context and the teaching component of synthesis writing, based on the analyses of course-related documents, classroom field notes, and three semi-structured interviews with the teacher of the academic writing course that served as the study’ research site. Chapter 5 discusses the findings concerning the students’ overall perceptions of and performances in the synthesis tasks assigned in the course that was studied, which emerged from the end-of-semester survey and textual analyses of their synthesis papers. As a result, Chapter 5 provides a broad picture of the qualities of the students’ synthesis papers and their overall understanding of synthesis. Building upon these findings, I selected four focal participants–two strong and two weak writers–to conduct multiple case studies in the following two chapters. Subsequently, Chapter 6 and Chapter 7 illustrate the diverse learning experiences with synthesis writing of two strong writers (Jane and Steve) and two weak writers (Han and Chen), respectively, through triangulation of background interviews, stimulated-recall protocols, and the teacher-student tutorial interactions. I also summarize the characteristics of successful and less-successful synthesis writing within the two groups of writers in each chapter.

Finally, in Chapter 8, I discuss the findings of the study by doing cross-case analysis of the four participants while situating the discussion in the large context of L2 reading-writing connections and source-based writing. In the end, I suggest pedagogical implications and possible directions for future research for classroom teaching and learning of synthesis writing in the second language context.
Chapter 2
The Review of the Literature

Overview

In seeking to understand how second language writers compose academic synthesis papers and to propose a L2 model of synthesis, this study examine L2 learners’ academic literacy development in synthesizing, specifically with regard to reading and writing connections. To connect this study to previous research on L2 academic literacy, this chapter discusses theoretical frameworks of literacy and reading-writing relationships, followed by a review of studies on synthesis writing. In the first section, I outline a multidimensional view of literacy and discuss why a multilayered view of discourses of writing is undertaken in the present study. In the next section, I focus on the theories of reading and writing connections, in particular the model of text world production and the constructivist model of discourse synthesis in L1 context; and call for building a L2 model of synthesis and reading-writing connections. Lastly, I review a number of studies on synthesis writing in the L1 and L2 contexts respectively. The theories and research discussed in this chapter serve as conceptual framework for investigating synthesis writing of second language learners. Furthermore, the discussions hereinafter provide important foundations and useful heuristics for data collection, analysis, and
Theoretical Frameworks of Literacy and Writing

A Multidimensional View of Literacy

Literacy research underwent an important paradigm shift—from a *cognitive* to *social* view of literacy in the past three decades (Heath, 1983; Scribner & Cole, 1981). The cognitive view of literacy considers that literacy consists of a set of discrete decoding and encoding skills. Within the cognitive perspective, it is assumed that learners can acquire the set of skills in one context and apply them in other contexts. Street (1984) used the term *autonomous* to refer to such view of literacy. He argued that an autonomous model of literacy conceptualizes literacy in “neutral” and “technical” terms, which are independent of social, cultural and historical context (p. 1). In contrast to the cognitive view of literacy, ethnographic literacy scholars viewed literacy as social practices. This social view of literacy deemed that learners acquire the ways of doing literacy activities in socially and culturally situated contexts and learners’ literacy practices varies in time and space across their life histories. The pioneer scholars of the social view of literacy Sylvia Scribner and Michael Cole (1981), in their landmark book *The psychology of literacy*, defined practice as “a recurrent, goal-directed sequence of activities using a particular technology and particular systems of knowledge … [and] practice always refers to social developed and patterned ways of using technology and knowledge to accomplish tasks” (p. 236). Scribner and Cole well explicated the paradigm shift from a psychological or cognitive view to social practice view of literacy, as shown in the following frequently cited paragraph:
This notion of practice guides the way we seek to understand literacy. Instead of focusing exclusively on the technology of a writing system and its reputed consequences …, we approach literacy as a set of socially organized practices which make use of a symbol system and a technology for producing and disseminating it. Literacy is not simply knowing how to read and write a particular script but applying this knowledge for specific purposes in specific contexts of use. The nature of these practices, including, of course, their technological aspects, will determine the kinds of skills (“consequences”) associated with literacy. (Scribner & Cole, 1981, p. 236)

Another leading literacy scholar Brian Street also echoed the above social view of literacy. As juxtaposition to his autonomous model of literacy, Street (1984) proposed an ideological model of literacy and defined it as follows:

I shall pose an ‘ideological’ model of literacy. Those who subscribe to this model concentrate on the specific social practices of reading and writing. They recognize the ideological and therefore culturally embedded nature of such practices. The model stresses the significance of the socialization process in the construction of the meaning of literacy for participants and is therefore concerned with the general social institutions through which this process takes place and not just the explicit ‘educational’ ones. (Street, 1984, p. 2)

According to Street (1984), what distinguishes an ‘ideological’ model from an ‘autonomous’ one is that the former holds a ‘social’ view of literacy whereas the latter treats literacy as ‘asocial’ or ‘decontextualized’ cognitive skills. Furthermore, the ‘ideological’ model put power in the center of literacy practices. It challenges the dominant discourses and questions the reproduction of power structure of the institutions as well as the society at large.

considered reading and writing indispensible to the context of social and cultural
practices of which they are a part, moving away from the individual minds. Instead of the
singular form of literacy, multiliteracies, multimodal literacies and new literacies were
advocated, especially in the era of digital media and online sphere.

In fact, the field of literacy has become ever more contentious and
multidisciplinary in the last several decades. The diverse views of literacy may stem
partially from the theoretical roots of different disciplines as well as the historical trend of
their influences on education, as Stephen Kucer (2009) argued, “linguists emphasize the
language or textual dimensions of reading and writing. Cognitive psychologists explore
the mental processes that are used to generate meaning through and from print.
Socioculturalists view acts of literacy as expressions of group identity that signal power
relationships. Developmentalists focus on the strategies employed and the patterns
displayed in the learning of reading and writing” (p. [3]). Therefore, Kucer proposed a
multidimensional framework of literacy which includes four layers—cognitive, linguistic,
sociocultural, and developmental. He explicitly indicated that this framework further
reflects and extends the New Literacies movement.

According to Kucer (2009), every literacy event—defined as “any action sequence
involving one or more persons, in which the production and/or comprehension of print
play a role” (Health as cited in Anderson, Teale & Estrada, 1983, p. 386)—involves the
four dimensions. In the center of the literacy event is the cognitive dimension in which
language users encode and decode the texts to construct meanings. The next surrounding
layer is the linguistic dimension through which written and oral discourses are produced
by language users and interlocutors. The third dimension is the sociocultural layer because literacy events are not only individual acts of meaning making, but also social acts of negotiation of meanings and relationships. Finally, encompassing the cognitive, linguistic, and sociocultural layers is the developmental dimension. Kucer (2009) argued that language users acquire a large repertoire of literacy practices through encountering new literacy events and they gradually build an understanding of the cognitive, linguistic and sociocultural dimensions of literacy. Thus, he used the term “becoming literate” instead of “being literate” (p. 6) to describe the ongoing developmental dimension of literacy.

**Academic Literacy in English as a Second Language**

The multidimensional views of literacy provide a fruitful theoretical foundation for examining various types of literacy events and activities, including school-based academic literacy as well as home and community literacy. In the field of English as a second language, L2 learners’ academic literacy development has drawn considerable research attention (Leki, 2007; Spack, 1997; Zamel & Spack, 1998) and remained a viable area of inquiry. However, as dynamic and multidimensional as literacy is viewed, L2 academic literacy was defined in multiple ways within different theoretical perspectives.

In an early and important longitudinal case study of L2 academic literacy development, Ruth Spack (1997) defined academic literacy as “the ability to read and write the various texts assigned in college” (p. 4). She contextualized the academic literacy development of a Japanese undergraduate named Yuko by considering the local,
historical, and interactive factors in academic settings. Spack explained that “these factors included linguistic and cognitive development, previous educational experiences, and cultural background as well as interactions with instructors and course-related texts” (p. 6). In relation to the dynamic views of literacy discussed by Scribner and Cole (1981), Street (1984, 2000) and Kucer (2009), Spack’s (1997) conceptualization foregrounds the linguistic and cognitive or psychological dimensions of literacy in university context.

In another well-known longitudinal study of four L2 undergraduate students’ academic writing experiences, Ilona Leki (2007) defined academic literacy as follows:

[Academic literacy] is not limited to the technology of reading and writing, a unitary skill, or a strictly cognitive activity but, rather, includes the activity of interpretation and production of a variety of texts often within important social contexts, such as group work projects or writing center assistance, and variable reliance on a wealth of previous experience with text. Furthermore, the meaning of academic literacy was not uncontested by the students themselves as they sometimes resisted literacy activities or brought competing views of literacy to academic arenas in which they sometimes struggled. (p. 3-4)

In the above quote, Leki (2007) indicated that academic literacy experiences go beyond simply the cognitive aspect of reading and writing. Rather, academic literacy practices include the following aspects:

1. **Social** aspect of L2 students’ college life (e.g., their relationships with teachers, peers, and community members);

2. **Developmental** aspect of L2 students’ academic growth (e.g., learning the academic and disciplinary practices throughout their years of college study);

3. **Institutional** nature of L2 students’ experiences (e.g., the curriculum and disciplinary requirements);

4. **Ideological** aspect of L2 academic literacy development (e.g., L2 learners’
contestation and resistance to the dominant academic discourse).

Leki’s (2007) view of academic literacy is more aligned with the *sociocultural* and *developmental* dimensions of literacy using Kucer’s (2009) categories. Furthermore, Leki (2007) coined the term “socioacademic relationship” (p. 9) to refer to the social interactions that L2 students engaged with teachers and peers in completing the academic tasks in specific context. She stated that “good socioacademic relationships facilitated the students’ academic lives in a variety of ways, and the students worked diligently on the establishment and regulation of these relationships with both peers and faculty” (p. 14). Thus, the socioacademic relationships, as Leki argued, are central to L2 learners’ academic literacy development. In order words, L2 learners’ success or failure in academic literacy events or activities cannot be fully understood in isolation to the social, cultural and institutional context.

Additionally, another area of inquiry which shed light on our understanding of L2 academic literacy development is the “academic literacies” research done by a group of British scholars (Lea, 2004; Lea & Street, 1998, 2006; Lillis, 2003; Lillis & Scott, 2007). These UK-based scholars discussed three models and advocated an academic literacies perspective to the study of university students writing. Lea and Street (1998) first introduced the three models: “study skills,” “academic socialization” and “academic literacies.” First, study skills model views literacies as “a set of atomized skills which students have to learn and which are then transferable to other contexts” (p.158). Second, academic socialization model considers that students can learn the prototypical literacy practices and gradually acculturate into the disciplinary academic community. Third,
academic literacies model “incorporates both the other models into a more encompassing understanding of the nature of student writing within institutional practices, power relations and identities” (p. 158).

Moving away from the skill-based, deficit view of students writing, Lea and Street (1998) argued for the use of academic literacies framework to understand the complex, dynamic, and multi-layered writing practices in higher education contexts. Lea and Street (2006) further elaborated academic literacies framework:

Academic literacies, is concerned with meaning making, identity, power, and authority, and foregrounds the institutional nature of what counts as knowledge in any particular academic context. It is similar in many ways to the academic socialization model, except that it views the processes involved in acquiring appropriate and effective uses of literacy as more complex, dynamic, nuanced, situated, and involving both epistemological issues and social processes, including power relations among people, institutions, and social identities. (Lea & Street, 2006, p. 369)

So far, the empirical evidences from the two seminal longitudinal studies on L2 learners’ academic literacy experiences as well as the theoretical perspectives put forward by British literacy scholars have indicated that academic literacy is a complex, dynamic, and multi-layered construct which requires multidimensional theoretical lenses. In contrast to the cognitive and linguistic views of literacy, the “social turn” in literacy studies has highlighted the situatedness of cognition and literacy practices in sociocultural contexts. In fact, learners’ cognition is embedded and shaped by the social world (Vygotsky, 1978). Therefore, presenting a multi-dimensional view to literacy events and practices is crucial to understand the complex nature of L2 academic literacy development.

A Multilayered View of Discourses of Writing

Fairclough’s (1995) three-dimensional framework of discourse also provided both
theoretical and methodological basis to study reading, writing, and literacy. Fairclough classified both written and oral discourse into three multi-dimensional layers: the text, discourse practices, and sociocultural practices. He argued that each level is embedded in the next level of discourse. For instance, the text is embedded in the discourse practices as well as the sociocultural practices. Correspondingly, Fairclough proposed three dimensions of discourse analysis: textual analysis (or description), processing analysis (or interpretation), and social analysis (or explanation). First, textual analysis, which is also called description, is a linguistic analysis of a given text. It is usually the most narrowly defined analysis based on textual information. Second, processing analysis or interpretation is the processes of producing, consuming, and distributing the texts. As Bloome and Talwalkar (1997) indicated, the essential part of Fairclough’s framework is “the inclusion of processes of production and consumption (e.g., interpretation)” (p. 107). Because of its emphasis on the discourse processes, Fairclough’s critical discourse analysis looks beyond just the text and individuals, and bridges language use with social contexts and power relations. Finally, social analysis or explanation is “[an] analysis of the discursive events as instances of sociocultural practices” (p. 2). It focuses on the macro-level political, cultural, and economic aspects of social life.

Adopting Fairclough’s multi-layered view of discourse, Ivanič (2004) identified six discourses of writing—“constellations of beliefs about writing, beliefs about learning to write, ways of talking about writing, and the sorts of approaches to teaching and assessment which are likely to be associated with these beliefs” (p. 224). This framework included: a skills discourse, a creativity discourse, a process discourse, a genre discourse,
a social practices discourse, and a sociopolitical discourse. Ivanič argued that this framework could be used to analyze a wide range of data about beliefs and practices about the teaching of writing. Through comparing beliefs about writing, beliefs about learning to write, approaches to the teaching of writing, and assessment criteria, Ivanič proposed that “while there are tensions and contradictions among these discourses, a comprehensive writing pedagogy might integrate teaching approaches from all six” (p. 220).

In sum, Ivanič’s (2004) discourses of writing framework revealed that the beliefs about writing and the teaching of writing were much complex. Writing scholars or teachers may foreground certain discourses of writing in their research or pedagogical practices. As Ivanič suggested, a more comprehensive approach to writing pedagogy, which incorporated all six discourses of writing, was more valuable for the teaching and learning of writing. In the following sections, the discussions about the multilayered views of literacy and discourses of writing will guide the review of empirical studies on synthesis writing and the investigation about the teaching and learning of synthesis writing.

**The Theoretical Models of Reading and Writing Connections**

Reading and writing connections have been studied as interconnected literacy acts not until the earlier 1980s. The groundbreaking work started with Stotsky’s (1983) synthesis on reading and writing relationships; and the argument put forward by Tierney and Pearson (1983) that reading and writing were fundamentally similar processes of meaning making. In the L1 written composition field, writing scholars began to view
reading (in parallel with writing) as a constructive rather than a receptive process (Bereiter & Scardamalia, 1987; Haas & Flower, 1988; Spivey, 1990). In fact, viewing reading as a composing process challenged the deficit view of reading as decoding and encoding processes, which echoed the previous debate on the cognitive versus social view of literacy. In the composition classrooms, Salvatori (1996) argued that, reading and writing are interconnected activities thus composition teachers should make the invisible interconnectedness of reading and writing more visible to the students. She discussed “the theoretical and practical appropriateness of using ‘reading’ as a means of teaching writing” (p. 441). Salvatori’s argument of the place of reading in composition classroom was a very important theoretical and pedagogical proposition.

Deeply influenced by their L1 counterparts, L2 writing researchers have also been interested in reading-writing connections (Belcher & Hirvela, 2001; Carson & Leki, 1993; Hirvela, 2004) since L2 writing instruction began to move toward a source-based writing orientation in the early 1990s. Reacting against earlier years of L2 writing instruction in which reading and writing were treated separately, these scholars also emphasized the important role of reading in the L2 composition classroom and suggested using reading as a tool to teach writing. In their edited volume, Belcher and Hirvela (2001) highlighted several important themes in linking multiple forms of literacy. Among these key areas, research on textual borrowing and source use has developed into a viable line of inquiry in L2 writing scholarship (Hirvela & Du, 2012; Polio & Shi, 2012; Shaw & Pecorari, 2013; Shi, 2004, 2010, 2012). However, though the importance of L2 reading-writing relationships has been widely recognized, it is still a relatively
underexplored and under-theorized area (Grabe & Zhang, 2013). In fact, the L2 writing field lacks a theoretical model of reading and writing connections, which is very much needed in L2 source-based writing instruction.

In this section, I discuss two important models of reading and writing connections in the L1 domain. The purpose of presenting these models is to use them as motivating theories to inform the theoretical exploration of reading and writing relationships and empirical investigation of synthesis writing in the L2 domain. The first model was Stephen Kucer’s (1985) model of text world production, which extended the theoretical proposition that reading and writing are parallel processes of meaning making. The second model—the constructivist model of reading and writing—was proposed by Nancy Nelson Spivey (1990) based on her comprehensive research on discourse synthesis writing.

The Model of Text World Production

Kucer (1985) proposed a model of text world production which merges the reading and writing processes. Specifically, this model discussed:

(1) The procedures used by readers and writers in accessing background knowledge, (2) the cognitive strategies employed to transform background knowledge into a text world, and (3) the role of context in the process of information location and retrieval. (p. 319-320)

Firstly, Kucer (1985) successfully integrated the schema theory from reading research into the model of text world production. He argued that readers/writers search, retrieve, evaluate and organize their background knowledge to construct the meaning of the texts. However, if the information from long-term memory is not available to retrieve or utilize, readers/writers have to adapt their previous knowledge to build new schema in order to
accommodate the new literacy situation. Secondly, he considered that the cognitive strategies are shared in the construction of meaning during the acts of reading and writing, including generating, integrating, selecting and revising. All these strategies are utilized in a reciprocal and recursive manner, rather than a linear fashion. Finally, context plays an important role in the construction of text world, as Kucer stated; “Each context is defined by the particular reader’s or writer’s experiences within the culture and by his or her past encounters with similar situations” (p. 326).

As demonstrated from the above, Kucer’s (1985) model of text world production provided important accounts of the roles of background knowledge and long-term memory, the context of situation, and the shared cognitive strategies in making meaning of the text world.

**The Constructivist Model of Discourse Synthesis.**

To explore the complex processes of composing from sources, Spivey (1990) proposed a constructivist model that includes three operations that were central to the construction of textual meaning in discourse synthesis tasks—organizing, selecting and connecting. This constructivist model of reading and writing focused on the transformations that readers/writers perform when composing new texts from sources. Spivey eloquently described the composing-from-sources process as: “[readers/writers] dismantle source texts and reconfigure content they select from these sources, and they interweave the source material with content they generate from stored knowledge” (p. 256, emphasis added). Therefore, the three operations—organizing, selecting and connecting—are essential to the meaning construction and textual transformation in
synthesis writing.

**Organizing.** When readers comprehend a text, they begin to build a mental representation of the meaning and organization of the source text. This mental representation is based on the textual cues and the organizational structures provided by the author. As they read the text, they reorganize the text content to construct meaning by using two kinds of knowledge: the immediate source text information and the readers’ previous knowledge in long-term memory (Spivey, 1990). In a similar vein, writers also transform the textual organization and content to construct new meaning in the composing process. When working with one single source, readers/writers’ mental representation is often, but not always, similar to the structure of the original source. However, when synthesizing multiple sources, it is possible that the textual organization of their synthesis differs from the patterns in the original sources because they need to reshape their mental representation to accommodate multiple sources.

**Selecting.** When readers/writers compose a new text from sources, in addition to organizing content, they also need to select important and relevant information from the original texts. As readers, they select the important information based on the textual cues offered by the author. As writers, they may choose the relevant information according to the purpose of their writing and the criteria they established for selection of source information. Spivey (1990) used the terms “textual relevance” and “intertextual criteria” (p. 274) to discuss the complex transformation process of selecting. She indicated that other factors such as readers/writers’ cultural background, prior knowledge, and sensitivity to the texts might also influence the selection of the content.
Connecting. In addition to organizing and selecting, the third operation in composing-from-sources is connecting, which is defined as “the generating that the reader does in integrating what he or she already knows with the content explicitly cued by the text” (Spivey, 1990, p. 276). This operation is similar to Kucer’s (1985) generating and integrating strategies. Usually two types of knowledge are available for connecting: the textual information and prior knowledge. Readers/writers may add inferential materials to understand the source texts and later may not be able to distinguish what the text offers and what they have generated. They may also rely on their prior knowledge to fill in information gaps in the production of the new text. In both cases, readers/writers interweave the two kinds of knowledge to construct meaning and texts.

In a nutshell, Spivey’s (1990) constructivist model of discourse synthesis provides theoretical basis to study reading and writing connections and synthesis writing for the present study. The three central operations–organizing, selecting and connecting–are crucial not only to textual comprehension, but also to the transformation of texts. Under the umbrella of the constructivist model, Spivey (1984, 1991, 1997) conducted four discourse synthesis studies to examine the hybrid literacy acts. Her research on discourse synthesis not only contributes to the theory-building of reading-writing connections, but also informs pedagogical practices of integrated reading-writing instruction, given the fact that composing-from-sources has been considered as a powerful tool to learn academic contents.

Although Spivey’s (1990) constructivist model of discourse synthesis is useful to understand the operations of source-based writing, this model was only intended for L1
writers. Thus, we do not know whether Spivey’s model of discourse synthesis applies to L2 writers; if so how it can be contextualized in the L2 domain. Additionally, even though Kucer’s (1985) model of text world production provided very useful discussion on the role of background knowledge, the model only specified macro universals rather than account for every aspects of text processing. Therefore, L2 literacy and writing fields lack a useful theoretical model of reading and writing connections and synthesis. Empirical evidences are also needed to examine how Spivey’s (1990) constructivist model of discourse synthesis and Kucer’s (1985) macro universals of text processing can inform the theory-building and pedagogical practices of synthesis and reading-writing integration in L2 context.

**Studies on Synthesis Writing in L1**

In this section, I review empirical studies on synthesis writing in the L1 context. I begin with Spivey’s four discourse synthesis studies, which laid the foundation for the constructivist model of discourse synthesis in this area. It is followed by the discussion about several other studies on composing-from-sources and specifically synthesis writing, under the influence of the constructivist model. These studies looked into the products and processes of writing synthesis based on multiple sources and the contextual factors of synthesis writing, such as task representation, prior knowledge, writers’ individual differences and classroom context.

**Discourse Synthesis Four Studies**

Spivey conducted four pioneering discourse synthesis studies, primarily focusing on the sub-processes or operations of discourse synthesis:
(1) A study of synthesis reports of informational texts written by undergraduate students (Spivey, 1984);
(2) A development study of synthesis reports written by elementary and secondary school students (Spivey & King, 1989);
(3) A study on undergraduates writing comparisons (Spivey, 1991, also summarized in Spivey, 1997);
(4) A study on discourse synthesis and disciplinary tasks (Spivey, 1997).

Spivey’s (1984) first discourse synthesis study was conducted with 40 undergraduates enrolled in an education course at an American university. The participants were asked to read three informational texts on the topic of “armadillo” and compose a synthesis report for high school students. Spivey adopted multi-level procedures for analyzing both the products and processes of the students’ synthesis reports. The product measurements include: 1) quantity of content, 2) textual organization, 3) connectivity for the reader, and 4) overall quality of the text. First, Spivey divided students’ compositions into content units and calculated the number of content units against the total content units across all three source texts. Second, she labeled content units with different themes and depicted the textual organization of students’ syntheses using thematic chaining and chunking. Next, she measured the connectivity of each synthesis text, using ratio of connective operations divided by the total number of content units. Finally, the overall quality of students’ synthesis was evaluated by disciplinary experts. With regard to the process variables, three surface measurements were employed—extensiveness of planning, extensiveness of revision, and
time spent on the synthesis task.

Spivey (1984) concluded that students’ synthesis reports revealed three transformations—organizing, selecting and connecting. (a) For organizing, all students employed similar general organizational pattern as the source texts, although individual variations did exist. (b) With respect to selecting, writers tended to select contents that were shared by all three texts. (c) With regard to connecting, writers made inferences from the source texts and provide linkages for the readers. Another important finding from Spivey’s first discourse synthesis study was that students with better comprehension abilities (i.e., the able group) performed differently from the less able readers. The able group composed texts that were more integrated and elaborated, and better connected than less able readers. The able group also selected more important contents across source texts. In sum, the study demonstrated that better quality synthesis reports had tighter organizational patterns, close connectivity, and better comprehensiveness.

In the second developmental study, Spivey and King (1989) replicated the first study of discourse synthesis to elementary and secondary school students. The participants in the second study were 20 graders from each of the sixth, eighth, and tenth levels, with each grade comprising of 10 accomplished readers and 10 less accomplished readers. The source materials were three informational texts on the topic of “rodeo” and the writing task was also a synthesis report. Through textual analyses of all written products—scratch paper, planning sheet, drafts, and source texts, the study revealed similar findings with younger writers as with undergraduates in the first study. In general, both reading ability and grade level had impacts on the quality of students’ synthesis
reports; but reading ability was a stronger predictor for success of synthesis. Specifically, in contrast to the less accomplished readers, the accomplished readers were more likely to (a) select important information from source texts, (b) produce texts with tighter organization and local coherence, (c) better connect the contents of the texts. In addition, quality of synthesis report was also found to be associated with the amount of time spent on the task and the effort of planning. Spivey concluded that, “differences between accomplished and less accomplished readers may be due to differences in effort expended on the task as well as cognitive factors commonly associated with comprehension, such as sensitivity to structure” (p. 22).

Spivey’s (1991) third study examined college students’ writing of comparisons in the area of science education. The 30 undergraduates who participated were asked to work with two informational texts about “octopus” and “squid,” and later write a synthesis comparing the two animals. The investigating focus of this study was on the organizational patterns that the students employed and the content they selected. With regard to organizing, the students had two options: organization by object and organization by aspect. The study found out that organization by aspect was the most commonly used format (28 out of 30 students); however, within the aspect format, there were big variations among individual writers. Some writers chose aspects discussed in the articles to organize the comparison (15 out of 28 students); some used aspects based on similarities and differences (6 out of 28 students); others generated macro-aspects which were large themes to include several other aspects (7 out of 28 students). The multiple regression analysis revealed that “writers’ use of macro-aspects as a chunking
mechanism was the best predictor of the quality [of the synthesis papers]” (p. 410). This result indicated that transforming the source texts to create new meanings is a critical component for successful synthesis writing. In addition, the writers preferred to select contents that were parallel in both texts for comparison. Similar to the previous studies, this study demonstrated that higher quality comparisons had tighter organizational patterns, integrative contents, and better comprehensiveness.

In the last study, Spivey (1997) extended the inquiry into different genres of discourse synthesis, comparing two reading-to-write tasks: a report and a research proposal. Participants were 34 undergraduates in a psychology course. 16 of them wrote the reports and 18 did the research proposals. The source texts—five articles on the topic of “egocentrism”—were the same for both report and proposal groups. The overall organizational patterns and the quality of students’ syntheses were analyzed. Overall, a variety of organizational patterns were present in both tasks. In the proposal group, half of the students employed the expected response patterns (i.e., identifying a problem and providing a solution). On the other hand, the report group had more variability in organizational patterns, including topic collection, comparison, response, and critique. The quality of the students’ papers was evaluated by three psychologists. Their ratings indicated that the high quality proposals followed the disciplinary conventions but the high quality reports showed a large variable forms. Finally, Spivey (1997) suggested that the differences of organizational patterns among the students’ discourse synthesis were associated with different assignment and the proposal task revealed that students needed to learn disciplinary conventions to produce texts that resembled texts written by
disciplinary scholars and researchers.

In sum, Spivey’s four studies on discourse synthesis provided important empirical bases to understand the processes of synthesis writing and the quality of the written products by L1 writers. These studies demonstrated that the operations—organizing, selecting and connecting from reading comprehension research were also applicable to discourse synthesis writing. However, a few caveats need to be pointed out with regard to these four important studies. Firstly, while Spivey (1984) employed both process and product measurements, the three operations—organizing, selecting and connecting—were based on the analyses of students’ written products of synthesis papers, rather than verbal protocols during their actual writing processes. However, although the evaluation of writing process relied on surface measurements (e.g., marking on the source texts, planning on the scratch papers, and time spent on revision and task), it did provide a glimpse into L1 writers’ actual synthesis writing process. Secondly, it is worth noting that all source texts in the above four studies were chosen by the researchers. Spivey (1997) discussed the advantages and disadvantages of this methodological choice. She argued that it was better to have some commonality in the source texts in order to explicate the complex textual transformations in synthesizing and to understand the relationships between process variations and product quality. Spivey admitted that a more naturalistic approach might be suitable for other synthesis studies, which consider topic choice and source selection.

Other Discourse Synthesis Studies

Building upon the constructive model, McGinley (1992) investigated seven
education major undergraduates’ composing processes based on multiple source texts. Different from Spivey’s textual analysis of the students’ discourse synthesis, this study employed think-aloud protocols and text-based interviews. It revealed that the process of composing-from-sources (i.e., reading, writing and thinking) involves both linear and non-linear patterns. Furthermore, the two selected students’ case studies demonstrated different profiles of how reading, writing and thinking were operated in the composing processes. Such differences, as McGinley suggested, might be due to the arguments constructed in the essays, their conceptual process, and individual differences. This study called for more research that focused on learners’ individual differences and conceptual changing process in both the reading and writing activities.

In another discourse synthesis study that was influenced by the constructivist model, Ackerman (1991) explored the role of prior knowledge, both topical and rhetorical knowledge, in constructing synthesis essays by 40 graduate students. His study revealed that prior knowledge (i.e., familiarity with the disciplinary topic and previous textual experience about reading and writing) influenced graduate students’ abilities to locate and evaluate the source texts in the discourse synthesis task. Furthermore, task representation seemed to be a strong indicator of the originality of synthesis, in other words, how writers selected certain information and incorporate new ideas into the synthesis task. The study offered two important implications for examining reading-to-write. First, composition researchers need to be more attentive to students’ disciplinary, topic-specific and general knowledge for comprehending and composing. They also need to pay attention to students’ task representation (Flower, 1990b) of synthesizing information from multiple
sources. Second, the findings of this study not simply confirmed the constructivist model of reading and writing (i.e., the co-existence of comprehending and composing of processes), but also pointed to the complexity of translating a reading plan (e.g., a mental representation of the source texts) into a writing plan (e.g., a mental representation of a new text).

Echoing Ackerman’s (1991) call for more attention to students’ task representation of synthesis, Greene (1993) examined the role of task representation in undergraduate students’ development of academic thinking in reading and writing. The two synthesis writing tasks employed in Greene’s study were an informational report and a problem-based essay about a particular historical event. Primarily based on the analysis of think-aloud protocols, he concluded that the students had significantly different interpretations of the two tasks; they also demonstrated different approaches in organizing and selecting the information from the source texts. This study called into questions about the ways different writing tasks were represented and interpreted by teachers and students.

Following the previous study, Greene (1995) investigated how two college students interpreted a writing task based on sources and how they advanced their own ideas in their essays. The study also looked into the instructional context of the course, in particular, the teacher’s task representation of the writing an essays based on multiple sources and the processes of writing instruction in a beginning college writing classroom. Using retrospective think-aloud protocols and classroom recording, Greene argued that the students’ interpretations of the source-based writing task might change during the
composing processes, in which they employed different strategies because of their conflicting audience awareness, for example, whom they were writing for: the teacher, themselves, their peers or others. Greene suggested, “we need to pay attention to the dynamic interplay between individual writers and the social interaction that can influence the form and expression of their texts” (p. 212).

**Summary**

A review of the discourse synthesis studies in the L1 domain provided a foundation to understand the product and process of composing from multiple sources, and the contextual variables that were involved in the complex reading and writing activities. One of the major contributions of the above studies was Spivey’s three subprocesses or operations of discourse synthesis—organizing, selecting and connecting. These operations very well captured the composing processes of discourse synthesis and predicted the quality of synthesis writing by L1 learners with various writing abilities, ranging from elementary and secondary school students to undergraduate and graduate students. Several studies (Spivey, 1984; Spivey & King, 1989) revealed that reading ability played an influential role in L1 writers’ synthesizing performances, which underscored the interconnected relationships between reading and writing in discourse synthesis. In addition, these studies deepened our understanding of synthesis writing in several aspects, for instance, the representation of synthesis tasks (Flower, 1990b; Greene, 1993, 1995), the roles of prior and disciplinary knowledge (Ackerman, 1991; Spivey, 1997), and the teacher’s task representation and classroom context (Greene, 1995). These findings will be revisited in the next section, where I review the studies on
synthesis writing in English as a second language.

**Studies on Synthesis Writing in L2**

In this section, I review empirical studies on synthesis writing in the L2 domain. Spivey’s (1990, 1997) model of discourse synthesis has been employed to examine learning-to-write synthesis by L2 students. First, I discuss L2 studies that adopted the discourse synthesis framework. Next, informed by the findings about the important role of reading ability in L1 studies (Spivey, 1984; Spivey & King, 1989), I review research on the use of reading strategies in L2 synthesis writing. This is followed by the discussion about source use in synthesizing, which is one of the most important research areas in L2 source-based writing. Finally, I discuss several studies that examined task representation and classroom instruction of L2 synthesis writing.

**Discourse Synthesis Model in L2 Synthesis Writing**

In order to understand the processes involved in different academic writing tasks, Plakans (2008) conducted a comparative study of the composing processes of two writing tasks—integrated reading-to-write (i.e., synthesis) and independent writing-only tasks—by ESL students in an American university. The study also considered the products of students’ writing, which were the bases for university writing placement decisions. Based on students’ think-aloud protocols, Plakans found out that students performed differently in the two tasks: synthesis tasks elicited a more constructive process whereas writing-only tasks required more pre-writing planning. The interview data showed that relatively experienced and interested writers used a more interactive process in the reading-to-write tasks, which pointed to Spivey’s (1990) discourse synthesis. She concluded, “the reading-
to-write tasks appeared to elicit this discourse synthesis process” (p. 122) and suggested that synthesis tasks represented a more authentic writing process in university context, thus might be more appropriate than writing-only tasks for testing purposes.

To further explore the constructive process of integrated reading-to-write tasks, Plakans (2009a) used think-aloud protocols and text-based interviews to continue examining the actual writing processes of synthesis tasks when L2 writers undertook a writing placement test in an American university. The study found out that L2 students did employ discourse synthesis sub-processes—organizing, selecting and connecting in varying degrees. However, the differences existed among individuals while composing integrated reading-to-write tasks. Plakans considered these differences due to several factors: students’ English language proficiency, their prior experiences with source-based writing, and their backgrounds and familiarity to the topics. Plakans suggested that the discourse synthesis framework is a useful construct for researching L2 integrated reading-to-write tasks. She argued that L2 academic writing, if defined as integration of reading and writing, should incorporate discourse synthesis operations—organization, selection and connection. Furthermore, L2 writers’ distinctive characteristics, such as L2 proficiency, previous writing experience, background knowledge about the topics, and first languages and cultures need to add to the equation as well. Additionally, this study offered useful suggestions for L2 writing assessment. It informed the educational decision on switching from writing-only to more integrated source-based writing tasks due to the hybrid nature of most academic writing tasks that students will encounter throughout their university academic pathways.
As suggested by the both L1 and L2 studies (McGinley, 1992; Plakans, 2008, 2009a; Spivey, 1984, 1991, 1997; Spivey & King, 1989), discourse synthesis framework was an important construct for understanding both the process and product of integrated reading-to-write tasks. Both L1 and L2 writers seemed to followed the three sub-processes—organizing, selecting and connecting in their composing processes. The good quality synthesis papers were often associated with tight organization, close connection and better comprehensiveness. However, the limitation of Plakans’ work lies that her studies often used writing placement tests, which are one-shot writing tasks performed by L2 students when they entered the university. It must be noted that her choice of using placement tests to examine reading-to-write has its own strength from an assessment perspective. Thus, building upon Plakans’ work, this study extends our knowledge of L2 students learning to write synthesis in a real L2 writing classroom from a developmental perspective.

**Reading Strategies in L2 Synthesis Writing**

Reading ability has long been considered as an important indicator of writing performance in reading-to-write tasks. As reviewed in the previous section, Spivey’s (1984) first study revealed that students with better reading comprehension ability produced more integrated, elaborated and well-connected synthesis reports than less able readers. Another earlier study (Kennedy, 1985) also demonstrated strong association between reading ability and engagement with sources; namely the able readers employed more reading and planning strategies than less able readers in the reading and writing processes. Furthermore, Spivey and King’s (1989) developmental study again indicated
that reading ability was a stronger predictor for success of synthesis writing for younger writers as well.

Guided by the earlier inquiry of reading ability and research on L2 reading strategies, Plakans (2009b) examined the use of reading strategies in the performances of integrated tasks by twelve L2 students. Using think-aloud protocols, interviews, and students’ essays, Plakans looked into the frequency and types of reading strategies employed throughout the prewriting, writing, and revising sequences. The study found out that cognitive processing was used most frequently, followed by global and mining strategies; and goal-setting and metacognitive strategies were least frequent. In addition, students used more reading strategies in the prewriting stage. The study also examined the difference in the use of reading strategies between high and low achieving students. Interestingly, high performing students employed more global and mining strategies as well as goal-setting and self-regulating activities. In contrast, low achieving students tended to perform more bottom-up word-level reading. Therefore, the overall frequent use of cognitive processing strategies revealed that synthesis writing task did require a substantial amount of reading comprehension. The contrasting results between high and low achieving students suggested that global and mining strategies were crucial to successful performance of reading-to-write tasks.

To further understand the use of reading strategies in synthesis writing tasks, Yang and Plakans (2012) examined L2 students’ self-reported strategy use and performance in an integrated reading-listening-writing test. The authors categorized three major strategies or processes: self-regulatory strategy, discourse synthesis strategy, and test-
wiseness strategy. The quantitative analysis revealed that self-regulatory strategy controlled and monitored other strategies; discourse synthesis strategy (i.e., organizing, selecting and connecting processes) contributed to better test performance; whereas test-wiseness strategy (e.g., copying, patchwriting, and using previously memorized writing templates) had negative effects on students’ test performance. The results of this study further supported the claim that discourse synthesis operations are important to the success of composing from sources not only for L1 writers (McGinley, 1992; Spivey, 1984, 1990, 1997; Spivey & King, 1989), but also for L2 students (Plakans, 2009a, 2009b).

In addition, Yang and Plakans (2012) connected their findings to L2 students writing ability and source use. In brief, they indicated that source use, as revealed from the verbatim copying by low scoring students, may constitute a difficult aspect of L2 academic writing, thus deserves further research attention from L2 writing researchers and practitioners.

Source Use in L2 Synthesis Writing

In the field of L2 writing, source use has been considered as an important component of academic composing (Polio & Shi, 2012; Shaw & Pecorari, 2013). In particular, in synthesis writing, source use is closely related to the selection and connection of source information. As revealed from the aforementioned study (Yang & Plakans, 2012), source use posed great challenges to second language writers, particularly with regard to writing synthesis.

In an important study on source-based writing, Shi (2004) investigated a range of
textual borrowing strategies of both L1 and L2 learners in writing two synthesis tasks: summary and opinion essays. The purpose of this study was to examine how first language and type of writing task influenced undergraduates’ use of sources. Indeed, the study found out that both first language and types of writing task have effects on students’ textual borrowing. Specifically, the Chinese students who were L2 learners of English borrowed significantly more words from the sources than the native English speakers in both tasks. Both groups of learners tended to rely more on source texts in the summary task than in the opinion task, which suggested task type had different dependence on source information. However, because the analysis was focused on the use of sources, rather than the quality of the two synthesis tasks, the relationship between source use and writing quality was unknown from this study.

Unlike the strong correlation between reading ability and quality of synthesis writing found in the previously reviewed studies (Kennedy, 1985; Spivey, 1984; Spivey & King, 1989; Plakans, 2009a, 2009b), it is unclear how source use may influence the quality of synthesis written products. In an effort to explore such relationship, Plakans and Gebril (2012) examined source use in L2 integrated writing assessment, which included the test takers’ understanding of sources, the functions of source texts, and relation of source use to writing score. The study found out that source use served several functions: 1) to gain ideas and shape one’s opinion on the topic, 2) to support the writers’ opinion, 3) to provide language support for writing for L2 learners. Apparently, understanding of source texts appeared to be crucial to synthesis writing tasks, which may indicate a threshold effect of L2 reading comprehension and L2 proficiency.
Nonetheless, the relationship between source use and writing scores seemed to be inconclusive, which further revealed the complexity of interpreting source use in the assessment of synthesis tasks.

In another study on integrated writing assessment, through analyzing TOEFL iBT integrated reading-listening-writing tasks, Plakans and Gebril (2013) further explored L2 writers’ use of source materials (adding listening to academic lecture as a new source type) and its relation to test takers’ writing performance. This study looked into three aspects of source use: 1) the selection of important ideas from source texts, 2) the origin of ideas from sources, whether it was from the reading passage or listening, 3) the integration style, such as explicit use of sources (i.e., quotation) and implicit use of sources (i.e., paraphrasing or summarizing). The quantitative analysis of this study demonstrated that both the selection of important ideas and the origin of ideas from sources predicted scores. Similar to L1 discourse synthesis studies (Spivey, 1984, 1991; Spivey & King, 1989), high scoring L2 writers were more likely to locate important information and better integrate it into their writing. Quite interestingly, the direct copying from the reading passage and over relying on the reading passage negatively affect writing scores. In addition, the listening component of sources had significant impact on L2 students’ writing performance. However, this needs to be interpreted with caution due to the specific requirement of the TOEFL integrated writing task and the delivery of listening portion.

In sum, the above studies have yielded two important implications for future research on source use in synthesis writing. First, L2 students’ ability to select important
information from source texts and integrate it into their own writing is a strong predictor of the quality of their synthesis papers. Plakans and Gebril (2012) concluded that understanding of sources was critical for synthesis writing and demonstrated that source texts served multiple functions for L2 writers, which made selection and integration of sources more challenging and complex for L2 writers. Plakans and Gebril (2013) further revealed that both the selection and integration of important information were crucial for L2 students’ success in synthesis writing. Their ability to integrate source information in their own writing may be associated with source-based writing skills, such as summarizing, paraphrasing and quoting.

Second, students’ task representation—their understanding about the task requirement—seems to play an important role in their synthesis writing. In fact, Spivey’s third study (1991) that compared two synthesis tasks (e.g., report vs. comparison), demonstrated that task type influenced how students interpret, organize and compose synthesis essays. Shi’s (2004) study indicated that both cultural background and task type had impacts on L2 students’ textual borrowing strategies, for example, the amount of words borrowed and appropriation of source texts. Both L1 and L2 students borrowed more source texts in the summary task than in the opinion task, which illustrated that different types of synthesis tasks relied on sources in varying degrees. In Plakans and Gebril’s (2013) study, whether the students understood the integrated writing task and followed the task instruction had significant impact on their test performance. In the following, I discuss a few other studies that closely looked at L2 writers’ representation of synthesis tasks.
Task Representation of L2 Synthesis Writing

In the L2 writing area, students’ interpretation of the writing tasks have drawn steady attention. In a qualitative case study, Zhu (2005) studied a successful L2 graduate’s experiences with reading-to-write tasks in business, focusing specifically on the role of source texts and the student’s task representation. Through analyzing the student’s six research papers, course materials, source texts, and interviews, the study found out that source texts facilitated the student’s task representation of reading-to-write. In particular, source texts helped to construct the organizing plan, one of the five features of task presentation identified by Flower (1990b). Source texts also helped to acquire rhetorical forms and features, which was supported by genre analysis of EAP research (Feak & Swales, 2009). In addition, Zhu (2005) indicated that the student’s goal and perception of the task, personal believe, and prior experiences also influenced the writer’s task representation. Because this study was based on one business-major graduate student, some of the above findings may not be applicable to beginning-level undergraduate students. However, this study still pointed out the importance of source use in L2 students’ academic writing practices, in particular, the multi-functions that source texts could offer in their reading-to-write tasks.

Another study that directly examined undergraduate students’ representations of synthesis tasks was Plakans’ (2010) short report. This study compared the task representations of independent writing-only and integrated reading-to-write tasks. It revealed that six out of the ten L2 students perceived the two tasks similarly—they read the source texts to generate ideas but did not return to the texts for writing. In contrast,
the remaining four students did perceive a difference between the integrated and independent tasks—they read the prompt and source texts, returned back to the reading as they wrote, and spent time thinking about how to integrate the source materials to support their writing. The different perceptions among these students, as Plakans believed, may due to their previous experiences with integrated writing or academic writing in general. Specifically, writers who viewed integrated writing different from independent tasks tended to have more academic writing experience, and their task representations of reading-to-write became more complex as they composed the synthesis.

In sum, Plakans’ (2010) study together with L1 research on task representation of reading-to-write (Ackerman, 1991; Flower, 1990b; Greene, 1993, 1995) indicated that students’ understanding of synthesis tasks played an important role in their comprehending and composing processes. The variations of L2 students’ interpretations of synthesis tasks may be due to different individual and contextual factors, for example, the students’ prior experience with source-based writing as Plakans (2010) identified in her study, cultural and rhetorical background (Shi, 2004), and the teacher’s interpretation and classroom context as Greene (1995) argued in his study.

Based on the review of research so far, the existing L2 studies on synthesis writing have investigated the comprehending and composing processes and the written products of synthesizing. Several individual and contextual factors were also examined. One important element that has been missing in the current literature is the interaction between the teaching and learning of synthesis writing in real life classrooms. In fact, one recent experimental study on discourse synthesis instruction in an ESL class (Zhang,
found out that explicit instruction of discourse synthesis writing had a positive effect on intermediate level ESL students’ synthesis writing. Nonetheless, the field still needs continuing investigation about how L2 writing teachers interpret and present synthesis and how L2 writers learn to acquire this sophisticated literacy task, particularly from a developmental perspective, which was not present in the research literature.

**Summary**

Overall, the review of literature presented an overview of the theoretical frameworks and studies on both L1 and L2 students’ synthesis writing. In the first section, I outlined a multidimensional view of literacy and focused on academic literacy in English as a second language. Then I discussed why a multilayered view of discourses of writing was undertaken in the investigation of L2 learners’ synthesis writing. In the second section, I briefly reviewed the literature on reading and writing connections and explained two theoretical models in the L1 context—Kucer’s (1985) model of text world production and Spivey’s (1990) constructivist model of discourse synthesis. I argued that the field of L2 writing and literacy also needs a model of synthesis and reading-writing connections. In the final section, I discussed empirical research on synthesis writing in both L1 and L2 contexts. These studies explored the processes, products, and contextual factors of synthesis writing in both the L1 and L2 domains. The theories and studies discussed in this chapter have demonstrated that synthesis writing is an important component of academic literacy for second language learners in the university. Synthesis writing naturally bridges reading and writing activities, thus offers a great opportunity to explore the connections between reading and writing, both theoretically and
pedagogically. Because synthesis writing involved complex and hybrid literacy acts, this study needs to develop a comprehensive methodology to account for the complexity and hybridity. The following chapter discusses the research design and methods of this study.
Chapter 3
Research Methods, Participants and Design

Overview

To investigate the teaching and learning of synthesis writing in L2 writing instruction, this study employed an embedded qualitative multiple case study approach with “a two-tail design” (Yin, 2014, p. 62). From the teacher’s perspective, I explored the L2 writing teacher’s understanding of synthesis and her pedagogical approaches to synthesis writing instruction. From the students’ perspective, I examined how the L2 students gradually built their understandings of synthesis and approached this hybrid form of academic literacy. In order to address the complex nature of L2 synthesis writing, I used the following three clusters of questions to guide my research inquiry and data collection.

The first cluster focuses on the teacher’s task representation of synthesis and pedagogical approaches to synthesis writing:

1. What is the teacher’s task representation of synthesis in a university L2 academic writing course?
2. How does the teacher’s representation of synthesis tasks change throughout the course?
3. How do the teacher’s task representation of synthesis and the institutional context shape her pedagogical approaches to synthesis writing?

The second cluster deals with the students’ representations of synthesis tasks and their developments of synthesizing abilities:

4. What are the students’ task representations of synthesis?

5. How do the strong and weak writers’ representations of synthesis writing influence their performances in the synthesis tasks?

6. During their reading and writing processes, how do the strong and weak writers develop different abilities in synthesizing?

Finally, the third cluster explores the various factors that contribute to the strong and weak writers’ varied task representations of synthesis and different writing abilities:

7. What individual factors contribute to the strong and weak writers’ different performances in the synthesis tasks?

8. What contextual factors contribute to the strong and weak writers’ diverse learning experiences of synthesis writing? For example, the classroom instruction, the tutorial interaction, the writers’ prior writing knowledge?

9. What do the L2 writers’ diverse learning experiences with synthesis writing reveal about L2 reading and writing connections and L2 writing pedagogy?

Because of the purpose of the study and the type of research questions that it addressed, a classroom-based qualitative multiple case study was deemed appropriate for the research design and data collection. In this chapter, I begin with a discussion about the rationale for employing an embedded qualitative multiple case study approach with a
two-tail design. Next, I provide a description of the research context, the particular L2 writing classroom, and the participants, including the teacher and L2 students. This is followed by a discussion of data collection procedures and data sources. Finally, I present how I analyzed the data and discuss issues of validity and reliability in the research design.

**The Rationale for an Embedded Qualitative Multiple Case Studies Approach**

The main purpose of this study was two-fold: 1) to capture one L2 writing teacher’s experience of learning to teach synthesis writing, and 2) to create profiles of L2 students’ diverse experiences of learning to write synthesis papers in a university academic writing course. To achieve these goals, I studied the entire class (numbered 1902) for one academic term during a 5-month period in 2014. Within this classroom, I examined both the teaching and learning components of synthesis writing, and the interactions between them. Since synthesis writing represented a brand new literacy task for the L2 students in the 1902 course, I specifically focused on exploring their diverse learning experiences and creating individual profiles for four focal participants. Thus, a classroom-based qualitative multiple case studies approach served the purposes of the study in several important ways.

Robert Stake (1994), in his handbook chapter about case studies, stated that, “Case study is not a methodological choice, but a choice of object to be studied” (p. 236). This statement indicates that it is often the phenomenon that we are studying that determines whether a case study approach is appropriate for the research. A social scientist, Robert Yin (2014), who has written extensively about case studies, provides a
two-fold definition of case study: “A case study is an empirical inquiry that investigates a contemporary phenomenon (the ‘case’) in depth and within its real-world context, especially when the boundaries between phenomenon and context may not be clearly evident” (p. 16). In the above definition, Yin highlighted two important features of case study research: first, in-depth description of the phenomenon, and second, the phenomenon and context are not always sharply distinguishable from the real life context.

Yin’s (2014) interpretation of case study is aligned with Merriam’s (2009) view of a qualitative case study. Merriam described three key features of a case study: (1) particularistic, (2) descriptive, and (3) heuristic. In other words, a case study focuses on “a particular situation, event, program or phenomenon” and provides “a rich, thick description of the phenomenon under study” (p. 43). Furthermore, a case study also “illuminate the reader’s understanding of the phenomenon under study… bring about the discovery of new meaning, extend the reader’s experience, or confirm what is known” (p. 44). Therefore, both Yin and Merriam emphasized that the research phenomenon in case study research needs in-depth description, and that it might be impossible to separate the phenomenon’s variables from its context.

In the present study, the research phenomenon was the teaching and learning of synthesis writing in a university L2 writing classroom. Because teaching and learning interact in complex ways in the classroom context, a qualitative case-study approach was more appropriate than a quantitative methodology. Since the teaching and learning of synthesis writing are closely interrelated, the teacher’s classroom practices became an “embedded” (Yin, 2014, p. 50) component of the case study, and also served as an
important context to understand the students’ experiences of learning-to-write a synthesis, which was the major focus of the study. In other words, the research phenomenon and the context of this study were inextricable. Furthermore, Yin (2014) argued that:

Case study research comprises an all-encompassing method—covering the logic of design, data collection techniques, and specific approaches to data analysis. In this sense, case study research is not limited to being a data collection tactic alone or even a design feature alone. (p. 17)

Basically, Yin considered that a case study includes a comprehensive research design that has its own logic of inquiry, connecting the empirical data to the research questions, and ultimately to the interpretations and conclusions that emerge from the research. He further indicated that a case study is more suitable to address “how” and “why” questions, and case study researchers usually have little or no control over the events they observe. All these important features of case study strongly suggested that an embedded qualitative case studies approach was suitable for the present study.

According to guidelines for designing case studies (Yin, 2014), the research design of this study included several steps: (1) articulating the research questions, (2) identifying the units of analysis, (3) establishing the logic of inquiry, and (4) interpreting the findings. After forming the research questions shown at the beginning of this chapter, I identified the units of analysis for this study, which were the teacher and the individual students. First, I examined the case of the teacher’s developmental understanding of synthesis and her pedagogical practices in the 1902 course throughout the semester. Then, I chose a multiple case studies approach to investigate the students’ diverse learning experiences with synthesis writing. As Yin emphasized that multiple-case designs should follow “a replication, not a sampling logic,” he argued that “each case must be carefully
selected so that it either (a) predict similar results (*a literal replication*) or (b) predicts contrasting results but for anticipatable reasons (*a theoretical replication*)” (p. 57, emphasis in original). To achieve the goal of maximizing variations of literal and theoretical replications, I adopted “a two-tail design” (p. 62) in which two cases from both extremes (i.e., two strong writers and two weak writers) were selected and carefully examined. Finally, the findings about the teacher and the students were interpreted and their interactive relationships were discussed. In the following section, I introduce the research context and the participants, and discuss the data collection procedures and data analysis framework in detail.

**Research Context and Participants**

**The Research Site**

The research was conducted at a comprehensive, research-based university in the Midwestern United States. This university enrolls more than six thousand international undergraduates every academic year, accounting for approximately ten-percent of the total undergraduate student population. According to the university curriculum policy, international students whose native language is not English are required to take ESL composition courses based on their English writing placement test scores. The university ESL composition program oversees the placement examination and offers a two-course sequence to international students at the undergraduate level. The overall goal of the two-course sequence is to introduce international undergraduate students to English academic writing and prepare them to compose academic papers for mainstream courses across the curriculum. The course under study was the second one in the sequence (1902), focusing
The first-sequenced course (1901) laid the foundation for the targeted course under study. It introduced the fundamental elements of English academic writing, including summary, evaluative and persuasive writing. Although students also worked with sources in the first course, they usually only worked with one or two sources at the time and were not expected to search for and select multiple sources. In that sense, the second-sequenced course (1902) built upon the skills and practices that the students acquired in the 1901 course, and at the same time posed greater challenges for the L2 students in learning to write from multiple sources, most of which they selected on their own.

The main objectives of the second-sequenced course (1902) were to introduce the skills and knowledge necessary to perform source-based writing and prepare multilingual students for writing academic papers for other university courses. It also serves as a bridging course for the university’s first year composition course (1110) required of all undergraduates who are placed into it. The 1902 course involves a series of focused writing tasks and two major assignments—a short synthesis paper and a long synthesis paper. The focused writing tasks were geared toward introducing the specific skills that are essential to perform source-based writing, such as searching an academic database for source texts, paraphrasing, summarizing, responding, evaluating and documenting sources using proper citation styles. Synthesizing was at the heart of the two major assignments in the course and thus became the focal point of instruction throughout the course. A more detailed description of the course is presented in Chapter 4.
The Teacher of the Course

The teacher of the course, Ms. Perry (pseudonym), was a native English speaker in her mid-30s. She held a master’s degree in TESOL and had five years of L2 teaching experience at the tertiary level. She had taught the 1902 course in three consecutive sections one year before, though synthesis writing was still relatively new to her. During the semester when I conducted the study, Ms. Perry was among the twelve writing instructors for the various sections of the 1902 course, including me, the researcher. I chose to study Ms. Perry’s class for three main reasons: First of all, she was willing to participate in my study, and her teaching schedule did not interfere with my teaching schedule; second, the course coordinator who supervised the entire teacher group highly recommended her because of her teaching experience and familiarity with the course (In fact, most of the other instructors were new to the course). Third, her teaching was highly rated by the program director, colleagues and students. Finally, Ms. Perry’s background revealed that although she had taught English for five years, she was still developing her epistemology of writing instruction. It was this background that classified her as an early-career L2 writing teacher. Thus, it would be especially meaningful to study the teaching of synthesis writing and reading-writing relationships in her class from a developmental perspective. To see a complete teaching profile of Ms. Perry, more detailed information is provided in Chapter 4.

The Student Participants

The student participants of this study were ten international undergraduate students enrolled in Ms. Perry’s section of the 1902 course. These students came from a
variety of disciplinary backgrounds, and their ages ranged from 18-21 years old. Most of them were originally from China, which provides the largest percentage of the international undergraduate population in the current institution. These students usually finished their elementary and secondary education in their home countries. Half of them were freshmen, and half of them were transfer students who had studied at universities in their home countries for 1-2 years before coming the U.S. The following table (Table 3.1) provides background information about the ten student participants.
<table>
<thead>
<tr>
<th>Name (pseudonyms)</th>
<th>Age</th>
<th>Gender</th>
<th>Major</th>
<th>L1</th>
<th>Age began to learn English</th>
<th>Length of residence in the U.S.</th>
<th>Year of study</th>
<th>Transfer student (previous years of college study)</th>
<th>Teacher-rated writing ability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steve*</td>
<td>20</td>
<td>Male</td>
<td>Mathematics</td>
<td>Chinese</td>
<td>11</td>
<td>5 months</td>
<td>1st year</td>
<td>No</td>
<td>Strong</td>
</tr>
<tr>
<td>Han*</td>
<td>18</td>
<td>Male</td>
<td>Communication</td>
<td>Chinese</td>
<td>8</td>
<td>5 months</td>
<td>1st year</td>
<td>No</td>
<td>Weak</td>
</tr>
<tr>
<td>Ling</td>
<td>18</td>
<td>Female</td>
<td>Mathematics</td>
<td>Chinese</td>
<td>8</td>
<td>6 months</td>
<td>1st year</td>
<td>No</td>
<td>Average</td>
</tr>
<tr>
<td>Claire</td>
<td>20</td>
<td>Female</td>
<td>Biochemistry</td>
<td>Chinese</td>
<td>7</td>
<td>5 months</td>
<td>1st year</td>
<td>No</td>
<td>Average</td>
</tr>
<tr>
<td>Sophia</td>
<td>18</td>
<td>Female</td>
<td>Economics</td>
<td>Chinese</td>
<td>6</td>
<td>4 months</td>
<td>1st year</td>
<td>No</td>
<td>Strong</td>
</tr>
<tr>
<td>Jane*</td>
<td>20</td>
<td>Female</td>
<td>Information management</td>
<td>Chinese</td>
<td>7</td>
<td>6 months</td>
<td>2nd year</td>
<td>Yes (2 years)</td>
<td>Strong</td>
</tr>
<tr>
<td>Chen*</td>
<td>21</td>
<td>Male</td>
<td>Mathematics</td>
<td>Chinese</td>
<td>8</td>
<td>5 months</td>
<td>2nd year</td>
<td>Yes (2 years)</td>
<td>Weak</td>
</tr>
<tr>
<td>Lee</td>
<td>20</td>
<td>Male</td>
<td>Business</td>
<td>Chinese</td>
<td>13</td>
<td>6 months</td>
<td>2nd year</td>
<td>Yes (2 years)</td>
<td>Average</td>
</tr>
<tr>
<td>Ming</td>
<td>21</td>
<td>Female</td>
<td>Education</td>
<td>Chinese</td>
<td>7</td>
<td>5 months</td>
<td>2nd year</td>
<td>Yes (2 years)</td>
<td>Average</td>
</tr>
<tr>
<td>Nora</td>
<td>20</td>
<td>Female</td>
<td>Economics</td>
<td>Malay</td>
<td>4</td>
<td>1 month</td>
<td>1st year</td>
<td>Yes (1.5 years)</td>
<td>Strong</td>
</tr>
</tbody>
</table>

Note: Students marked with * are the four focal participants for the multiple-case studies.

Table 3.1: Background Information of the Student Participants
After screening the participants, I followed all ten participants from the beginning to the end of the course. It was after I examined the qualities of their synthesis papers during the data analysis stage that I selected four focal participants—two strong writers (Steve and Jane) and two weak writers (Han and Chen)—for the multiple-case studies. Following Yin’s (2014) replication logic for designing multiple-case studies, these four writers were purposefully chosen because they maximized the variations of learning to write synthesis papers among second language writers and revealed important theoretical propositions about reading and writing relationships in synthesizing. To monitor the overall performances of all ten participants in the synthesis tasks, I provide comprehensive discussions about the qualities of their synthesis papers and further explained why the four focal participants were chosen in Chapter 5.

**Educational background of Chinese students.** In addition to knowing about the students themselves, it is crucial to understand the educational background of Chinese undergraduate students in their native language and English. International undergraduate students from China, including both freshmen and transfer students, usually practice narrative and descriptive writing in Chinese in elementary school. They learn expository and argumentative or persuasive writing in middle and high school. Typically, they are given a general topic to write about using examples from well-known people and their own personal experiences. However, they are not required to work with sources, a crucial fact related to their transition to source-based writing in English. The Chinese rhetorical tradition values the use of famous persons’ sayings and classic literacy works, but these are not used as sources in the ways employed in English academic writing. In fact, there
is not an equivalent concept of synthesis writing in the Chinese rhetorical tradition (You, 2010). Hence, students coming from that background encounter a dramatically different textual world when reading and writing academically in English, in that there are no citation practices or formats assigned for writing in Chinese.

As for English writing, most Chinese students study English as a foreign language in elementary and secondary school. However, they have very little experience with English writing because the English instruction focuses on vocabulary, grammar and reading comprehension, with an increasing emphasis on listening and speaking in recent years. The lack of emphasis on writing is partially due to the guidelines for Chinese National College Examination, also known as Gaokao, which only requires high school students to write a short passage in English (approximately 150-200 words). These essays are usually descriptive and narrative writing tasks, such as writing a letter or describing a picture, thus involving no reading and no connections between reading and writing. The main purpose of such tasks is not to evaluate the students’ writing abilities, but to test whether they can use vocabulary and grammar accurately to write complex sentences and compose coherent paragraphs.

**Chinese students’ cultural expectations for teachers’ guidance in writing.** Given the kind of literacy education that Chinese students received in their native language and in English before they came to American universities, it is not surprising that Chinese students expect writing teachers to provide explicit instruction and guidance for their essays. A common instructional approach of writing in Chinese is the use of model papers. Chinese language arts teachers often provide model papers (e.g., models of
classic literacy works or excellent student papers) to help students understand the criteria of good writing. After reading model papers, Chinese students imitate those models to produce their own essays. They are also encouraged to remember well-written sentences and paragraphs, such as famous persons’ sayings and anecdotes, to use in their essays. Thus, it is very likely that Chinese students, once they begin their academic studies in American universities, also expect English writing instructors to provide explicit guidance and concrete examples (e.g., model papers) when learning English academic writing.

In addition to their English lessons at school, Chinese students who prepare to study abroad in American universities take additional English classes in “cram schools” to prepare for the TOFEL and SAT tests. The writing instruction at cram schools is structural and formulaic in nature. The students often memorize and then imitate writing templates in order to produce five-paragraph essays for the tests. Consequently, Chinese students may also anticipate detailed writing instruction, similar to what writing formula or templates offer, from their English instructors. Thus, the Chinese students in this study had very limited prior knowledge about English writing before they began their studies in the American university, and no real experience with source-based writing, including synthesizing. They might construct unique cultural expectations for their English writing teachers in terms of providing guidance when learning English academic writing.

Data Collection and Procedures

Overview of Data Collection Plan

The data collection began in spring semester of 2014 (January–May, 2014). The
entire data collection process was roughly divided into three phrases during the 15-week course: pre-course (week 1-5), mid-course (week 6-10), post-course (week 11-15). Such a plan was made because the course was structured into three major components: (1) the teaching unit of reading and source-based writing skills, (2) the teaching unit of a short synthesis paper, and (3) the teaching unit of a long synthesis paper.

At the beginning of the course (weeks 1 to 5), the students learned the fundamental reading and source-based writing skills, including global and focused reading strategies, paraphrasing, summarizing, and responding. I observed the class and took field notes to understand the classroom context and the teacher’s instruction. The participants were recruited in week three, and their demographic information was collected together with the consent form they signed. To learn about their previous literacy experiences and prior knowledge about synthesis, I conducted background interviews with individual participants and elicited their initial understanding of synthesis. I also conducted the first semi-structured interview with the teacher, Ms. Perry, to learn about her teaching experience, philosophy of teaching, and her initial understanding of synthesis writing.

In the middle of the course (weeks 6-10), the students began working on a short synthesis paper. The second stage of data collection focused on the students’ learning experiences related to synthesis. I continued observing the classroom to further understand the teacher’s instructional practices. During their writing processes, I collected the students’ outlines and drafts of the short synthesis paper to generate interview questions for the stimulated-recall protocols, which were scheduled
immediately after they completed their final draft of the paper. I also observed and audio recorded the individual tutorials between the teacher and the students for the short synthesis paper. In addition, the second semi-structured interview was conducted with Ms. Perry to further explore her teaching practices and reflections about the teaching unit concerning the short synthesis task.

Toward the end of the course (weeks 11-15), the students wrote a long synthesis paper utilizing the skills and knowledge they had acquired earlier in the 1902 course. These included reading and source-based writing skills, and knowledge about organizing, selecting and integrating sources. Drafts of their long synthesis paper were collected. The same stimulated-recall interviews were carried out after they finished the long synthesis paper. In addition, I observed the teacher-student tutorials and audio recorded their conversations to further investigate the individual support that the students received from Ms. Perry. Finally, the students took an end-of-semester survey and were interviewed briefly about their final understanding of synthesis writing. I also conducted the third semi-structured interview with Ms. Perry in order to learn about her overall reflections about synthesis writing instruction as she looked over the entire course.

As Yin (2014) explains, a case study often draws from a variety of data sources, including “documentation, archival records, interview, direct observation, participant-observation, and physical artifacts” (p. 105). This study employed several data collection methods to obtain multiple sources of evidence. The following table (Table 3.2) provides an overview of the data collection methods and procedures. Following Table 3.2, I discuss the data collection methods and sources of data separately.
<table>
<thead>
<tr>
<th>The student participants (The learning component)</th>
<th>The teacher Ms. Perry (The teaching component)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-course Phrase (Week 1-5)</td>
<td>Mid-course Phrase (Week 6-10)</td>
</tr>
<tr>
<td>• Demographic information sheets</td>
<td>• Stimulated-recall interviews on the short synthesis paper</td>
</tr>
<tr>
<td>• Semi-structured background interviews</td>
<td>• Drafts of the short synthesis paper and other writing assignments</td>
</tr>
<tr>
<td></td>
<td>• Audio recording of the teacher-student tutorials</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Initial semi-structured interview</td>
</tr>
<tr>
<td></td>
<td>• Classroom ethnographic field notes, audio recording, artifacts and documents</td>
</tr>
</tbody>
</table>

Table 3.2: Overview of Data Collection Methods and Procedures

Sources of Data

**Stimulated-Recall Interviews with the Students.** The two stimulated-recall interviews were conducted immediately after the students completed their synthesis papers, around week 10 and week 15, respectively. Since these interviews were
“retrospective protocols” (Greene, 1995, p.194) of their composing processes, it was crucial to conduct the interviews immediately after the students finished the drafts (Smagorinsky, 1994). To ensure that the stimulated-recall protocols elicited accounts of the actual writing processes, I read the students’ writing assignments and drafts associated with their synthesis papers beforehand. In each stimulated-recall section, I brought with me all their assignments and drafts. When a student recalled what he or she had done in response to my questions, he or she could refer to the assignments and drafts to better retell the writing processes. Having the writing assignments in front of them during the interviews also activated their working memory, which further increased the reliability of the stimulated-recall protocols.

The stimulated-recall interviews (Appendix B: Stimulated-recall protocol) included two parts: the first part was the retrospective comments made by the participants about their strategies or moves made in the writing processes; the second part was the participant’s responses to several cued questions regarding their choices and decisions about organization, selection and integration of sources (Greene & Higgins, 1994). During the stimulated-recall interviews, the participants spoke in their native language, Chinese, which is also my native language. Both data sources were audio recorded and transcribed into English. Each stimulated recall protocol session was approximately one hour long.

**Drafts of Students Synthesis Papers and Other Writing Assignments.** Recall that the course involved a series of focused writing tasks and two major assignments—a short synthesis and a long synthesis paper. In the first few weeks of the course, an
important focused writing task was a summary and response, in which the students chose an academic essay discussed in class and wrote a one-paragraph summary and one-paragraph response to the essay. About midway through the semester, the teacher introduced the short synthesis paper assignment. To scaffold students’ learning of the short synthesis, the teacher designed a series of writing tasks to support their learning, such as brainstorming research ideas, generating a paper proposal, preparing an outline for the paper (including plans for the use of sources), and three drafts. Toward the end of the semester, the class moved onto the long synthesis paper unit, for which the teacher also assigned several scaffolding tasks, including a proposal for the paper, an annotated bibliography of the sources read, an outline of the paper (including use of sources), and two drafts. Furthermore, the students were asked to make a field trip to an undergraduate research forum and to write a short report about what they had seen and experienced in the research forum. Building upon their observation of senior undergraduates’ poster presentations, they created their own poster for their long synthesis papers. All the drafts of their synthesis papers and other writing assignments were collected for analysis.

**Audio Recording of the Teacher-Student Tutorials.** About one week before the students submitted their final draft of the synthesis papers, they met with the teacher to discuss their papers in a one-to-one tutorial in Ms. Perry’s office. Each tutorial was about half an hour long; some went longer depending on the problems and revisions that were discussed. Each student had two tutorials with the teacher—one for the short synthesis and another for the long synthesis. All the tutorials were audio recorded and transcribed verbatim. I was physically present at most of the tutorial sections to take notes. Ms. Perry
usually marked students’ drafts either electronically or with pencil and paper before or during the tutorials; she also provided holistic comments to the students, either verbally or in written form. The teacher’s oral comments were recorded in the audio files; the written feedback and revisions were documented by making hard copies of the students’ drafts.

**Background Interviews and End-of-Semester Surveys with the Students.** In the third week of class, I recruited the students and collected their basic demographic information through a brief survey attached to the consent form. From week 3 to 5, I conducted background interviews with the ten student participants individually. The interviews asked about: 1) their prior school experiences before they came to the U.S., in particular reading and writing activities in their first language and English, 2) their TOEFL and SAT training and previous university learning experience (if they were transfer students), 3) their initial understanding about synthesis in relation to other writing tasks they had done, 4) their writing experiences in the first-sequenced writing course (1901), 5) their general understanding about academic writing, and 6) the amount and nature of their out-of-school writing in comparison to school-based writing (Appendix C: Background interview protocol).

At the end of the semester, I met the ten student participants individually to debrief them about the 1902 course. They took a survey that elicited their responses to the writing tasks and classroom instruction throughout the semester (Appendix D: End-of-semester survey). Before the students took the survey, I showed samples of the writing tasks and instructional materials so that they could recall which writing task or classroom...
instruction I referred to. After they finished the survey, I asked follow-up questions based upon their responses to the questions in the survey, such as why do you find this writing task or instruction useful or not useful? Why do you enjoy this assignment not the other? Both the background and follow-up interviews were audio recorded and transcribed.

**Semi-Structured Interviews with the Teacher.** The teacher was interviewed three times throughout the semester. The first interview was conducted around week 3. It was about her teaching background and her beliefs concerning writing instruction in general and synthesis writing in particular (Appendix E: Pre-course interview protocol for the teacher). The second interview was carried out right after she finished teaching the short synthesis paper unit in week 10. This interview was mainly about her reflections on the short synthesis paper unit (Appendix F: Mid-course interview protocol for the teacher). For example, what writing tasks and classroom instruction worked well or did not work so well? What changes did she plan to make in the long synthesis paper unit? The final interview was conducted after the semester had ended and Ms. Perry had graded all students’ final long synthesis paper. The focus of the post-course interview was the teacher’s thoughts about the teaching and learning of synthesis writing throughout the course (Appendix G: Post-course interview protocol for the teacher). All three semi-structured interviews, ranging from 50-65 minutes, were conducted in English and later transcribed in verbatim.

**Classroom Ethnographic Field Notes, Audio Recording, Artifacts and Documents.** Leki (2007), in her seminal longitudinal multiple-case studies of L2 undergraduate students, indicated that the great advantage of the case study methodology
is to provide depth and context to understand students’ experiences and to interpret their stories with an emic perspective. Therefore, understanding the teaching context was crucial to the design of the study described here. During the 15-week semester, the class met twice per week and lasted 80 minutes for each section. I observed and audio recorded all class sessions and took field notes. I also collected classroom artifacts (e.g., photos of the teacher’s instruction written on the board) and instructional documents (e.g., handouts, worksheets). All the classroom data were used to rewrite classroom ethnographic field notes (Emerson, Fretz & Shaw, 2011). The field notes helped to identify the key instructional episodes and demonstrated how the classroom instruction unfolded over time.

As can be seen so far, this study encompassed multiple sources of data and followed systematic data collection procedures. In the following section, I discuss how I dealt with the multiple sources of data with regard to analysis, interpretation and presentation of the study’s findings.

Data Analysis Framework

The multiple data collection methods described above aimed to provide a “thick description” (Merriam, 2009, p. 43) about the teaching and learning of synthesis writing. In the data analysis process, I systematically explored the interview transcripts, writing samples, field notes, and other documents. In order to tackle the complex research phenomenon, I grouped the sources of data into several categories (e.g., teaching category, learning category, and teaching-learning interaction category), and then I broke the data into manageable units, coded them, and searched for common themes and
emerging patterns. The data analysis process could be roughly divided into three stages.

In the first stage, I examined the classroom ethnographic field notes, artifacts, documents and the three semi-structured interviews with Ms. Perry to generate a picture of the classroom context and Ms. Perry’s understanding and teaching of synthesis writing. In the next stage, I explored the students’ responses to the writing tasks in the course and their reactions to Ms. Perry’s classroom instruction, using the survey data collected at the end of the semester. After forming a general picture of the students’ perceptions, I examined the quality of their synthesis papers based on textual analyses of their written products. In the final stage, based on the quality of their synthesis papers, four focal participants—two strong and two weak writers—were chosen. I created an individual profile of each participant’s development in learning-to-write synthesis papers and conducted cross-case analysis within each group and across the four participants, by triangulating the background interviews, stimulated-recall protocols, and the teacher-student tutorial interactions. In the following section, I discuss how different sources of data were analyzed and treated during the three stages respectively.

**The First Stage of Data Analysis.** First of all, it should be noted that in qualitative research, data collection and analysis processes are closely intertwined. This means data analysis occurs simultaneously with data collection. In the first stage, when I observed the classroom, I took field notes in a notebook and collected artifacts and documents during each class section. At the end of the day, I rewrote my field notes into word documents, elaborating my notes and jotting down my initial thoughts about the classroom instruction, activities, and tasks for that day. In the classroom ethnographic
field notes, I first summarized the major goals of this teaching unit articulated by the teacher in class. Next, the entire teaching unit was divided into several *instructional episodes* (Hillocks, 1995; VanDerHeide & Newell, 2013) that are coherently linked, usually center on particular teaching material (e.g., a handout or worksheet), and bear specific instructional goals (Appendix H: A sample of classroom field notes). The final purpose was to identify key instructional episodes that were crucial to the students’ learning of synthesis.

The three semi-structured interviews with the teacher were transcribed and indexed (Seidman, 2006). I read the transcripts multiple times before coding the interviews. According to Charmaz’s (2014) discussion about constructing codes in grounded theory, “During initial coding, the goal is to remain open to all possible theoretical directions indicated by your readings of the data. Later, you use focused coding to pinpoint and develop the most salient codes and then put them to test with the large batches of data” (p. 114). Following Charmaz’s suggestion, I first conducted open coding for the three semi-structured interviews separately and observed what themes emerged from the initial coding. Later, I returned back to the interview transcripts and coded the transcripts using the most salient codes that cut across all three interviews. Some emerging themes were: a) the teacher’s construction of synthesis, b) teaching approaches to synthesis writing, c) reading instruction in teaching synthesis writing, d) common problems of students’ synthesis writing etc. The analysis of the interview transcripts were merged with the classroom ethnographic field notes and the analysis of the classroom artifacts and documents to test the emerging themes and patterns in the
teaching of synthesis writing. The results of the above data analysis will be presented in
Chapter 4.

The Second Stage of Data Analysis. In the second stage, I focused on
understanding the students’ perceptions of the synthesis tasks and their reactions to Ms.
Perry’s teaching of synthesis as well as their overall performances in the synthesis tasks,
by dealing with the end-of-semester survey data and analyzing the written products of the
students’ synthesis papers. The survey data were put into Excel, and descriptive statistics
were used to understand students’ perceptions of synthesis tasks and classroom
instruction, for example the usefulness, enjoyment, difficulty of writing synthesis papers
as compared to the other writing tasks in the course, the usefulness of the process-
oriented (smaller) writing tasks, teacher individual support, and classroom instruction.
While the survey data provided an overview of the interaction between teaching and
students’ learning, the textual analysis of the students’ two synthesis papers revealed their
writing abilities in synthesizing.

For the textual analysis, all ten participants’ synthesis papers were analyzed based
on organization, selection of sources, integration of sources, and strategies for source use
(Spivey, 1990; Solé, Miras, Castells, Espino & Minguela, 2013). This analytical
framework was guided by the constructivist model of discourse synthesis of L1 writers
proposed by Spivey (1984, 1991, 1997) and its applications to L2 writers’ integrated
tasks (Plakans, 2008, 2009a). In terms of organization, since Ms. Perry asked the students
to specify the type of paper in their outline explicitly, I used that information to code the
organizational structures of their synthesis papers. Regarding selection of sources, the
students were required to choose their own source texts from a library database; I examined the appropriateness and number of sources selected. With regard to integration of sources, two important measurements in Solé et al. (2013) were also used—intratextual integration (i.e., links within one single source text) and intertextual integration (i.e., links among two or more source texts). In addition, the students were required to integrate their own examples or observations in the synthesis papers; thus, writer and source text integration was also examined (Kucer, 1985; Spivey, 1990). Finally, the strategies for source use, including summary, paraphrase, and direct quote, were calculated (Shi, 2004, 2012). The textual analyses of the students’ written products not only distinguished the students’ varied abilities in synthesis writing, but also revealed some important features of successful and less-successful synthesis papers written by the second language students. The results of the end-of-semester survey and the students’ written products will be displayed in Chapter 5.

**The Final Stage of Data Analysis.** In the final stage, following “a two-tail design” of multiple case studies (Yin, 2014, p. 62), I selected the four cases based on the textual analysis of synthesis papers described in the above. The four cases represented two strong writers (Jane and Steve) and two weak writers (Han and Chen). The multiple-case analyses drew from three sources of data: the background interviews, stimulated-recall protocols, and tutorial interactions. The background interviews were indexed and coded in the corresponding categories: a) the students’ initial understanding of synthesis, b) their knowledge of and experience with L1 reading and writing, c) their knowledge of and experience with L2 reading and writing, d) their motivation to learn English
academic writing and overall educational goal. The background interviews provided a starting point to examine the students’ academic writing abilities and their initial understanding of synthesis.

As mentioned in the data collection section, the first part of the stimulated-recall interviews were the retrospective comments that the participants made about their synthesis papers. I examined the rhetorical moves (Graff, Birkenstein & Durst, 2009; Harris, 2006) that they made in the writing process as they composed their synthesis papers. Another part of the stimulated-recall interviews was the participant’s responses to cued questions (see Appendix B) regarding their choices and decisions about organization, selection and integration of sources (Greene & Higgins, 1994). These interview data were analyzed to corroborate the textual analyses of their synthesis papers. Finally, the tutorial interactions were examined to highlight the individual support that the students received from the teacher. The tutorial interactions also helped to contextualize the revisions made between the previous and final drafts, which further revealed the students’ development in synthesis writing.

All in all, the background interviews, stimulated-recall protocols and tutorial interactions together with the textual analyses of the students’ synthesis papers were triangulated to delineate individual writers’ learning trajectories of synthesis writing. I created individual profiles for the four focal participants and presented the two strong writers’ stories in Chapter 6 and the weak writers’ stories in Chapter 7.

**Issues about Validity and Reliability**

Validity and reliability are two important issues to consider in judging the quality
of a research design. In designing and doing a case study, Yin (2014) argued, several tactics during the data collection, data analysis and composition of the case studies can ensure the rigor of the case study design. This study employed several key tactics to establish the validity and reliability of the research design and implementation of the study: triangulation, analytical generalization, and systematic use of a case study protocol.

**Triangulation of Multiple Data Sources and Methods**

Triangulation has been defined and often discussed in the qualitative research methodology literature. One definition of triangulation from Creswell (1998) is:

In triangulation, researchers make use of multiple and different sources, methods, investigators, and theories to provide corroborating evidence. Typically, this process involves corroborating evidence from different sources to shed light on a theme or perspective. (p. 202)

Yin (2014) also stated that the crucial tactics to increase internal validity when doing case studies are, “The first is the use of *multiple sources of evidence*, in a manner encouraging convergent lines of inquiry… A second tactic is to establish a *chain of evidence*, relevant during data collection” (p. 47, emphasis in original).

As elaborated in the section above, this study employed a variety of data sources (e.g., interviews, field notes, writing samples, artifacts, documents and survey) and multiple data collection methods (e.g., semi-structured interviewing, stimulated-recall protocol, observation of class sessions and tutorials). The study also formed its logic of inquiry by establishing a chain of evidence between data collection and analysis; for example, different sources of data were used to analyze the teaching component, the learning component, and interaction between teaching and learning. Furthermore, the research questions raised at the beginning of this chapter guided the triangulation of
multiple data sources and methods. For example, in order to answer the fourth research question “How do the strong and weak writers’ understandings of synthesis influence their actual comprehending and composing processes of synthesis papers?” three types of data sources–the students’ self-reported data through interviewing, the observational data based on classroom field work, and document analysis–were triangulated to properly address the research question. Therefore, through data triangulation and method triangulation, this study used corroborating evidence to develop the converging lines of inquiry, which enhanced the validity of the case study design.

**Analytical Generalization**

Another important concept that deals with the external validity of case study research is generalization, namely, whether a case study’s findings are generalizable beyond the immediate study. Yin (2014) indicated that case study research should be operated using “analytical generalization” rather than the more commonly recognized “statistical generalization” (p. 40). He defined *analytical generalization* as “the logic whereby case study findings can extend to situations outside of the original study, based on the relevance of similar theoretical concepts or principles” (p. 237). The emphasis on the relevance of similar situations is essential for interpreting the generalizability of case study results. This is because case studies do not following a sampling logic like in quantitative research.

In the multiple-case studies described here, each case was carefully chosen to either replicate a similar result (e.g., the successful and less-successful writing experiences within the strong and weak groups respectively) or predict contracting results.
(e.g., the diverging writing experiences across four writers) to shed light on theoretical propositions about L2 reading and writing relationships in synthesizing. Based on the thick description of the teaching and learning of synthesis and detailed analyses of the four case studies, this study attempted to propose a L2 model of synthesis and reading-writing connections in relation to the constructivist model of discourse synthesis in the L1 domain. Although this attempt was still in the beginning stage, given the lack of an established framework for synthesis in the L2 writing field, this study offered some possibilities for analytical generalization for L2 synthesis studies.

**Use of a Case Study Protocol**

A major way to increase the reliability of case study research is to use a case study protocol systematically during the data collection procedures, especially for multiple-case design. A case study protocol “contains the instrument but also procedures and general rules to be followed in using the protocol… and is intended to guide the researcher in carrying out the data collection from a single case” (Yin, 2014, p. 84). Since this study employed cross-case analysis and synthesis, it was crucial to design the case study protocol and follow the same procedures during the investigation of each case participant.

The case study protocol, which was developed and tested in a pilot study one semester before the current study, consisted several research instruments, including the background interview protocol (Appendix C) and the stimulated-recall protocol (Appendix B) for the student participants and three semi-structured interview protocols (Appendices E, F, G) for the teacher. Due to the fact that this study examined the
teaching and learning of synthesis writing from a developmental perspective, the data collection procedures were carefully executed at the beginning, middle and end of the course (see Table 3.2), following the general rule of documenting the changes and developments in the teaching and learning of synthesis. Thus, the use of a case study protocol increases the trustworthiness of the multiple-case studies design.

Summary

This chapter outlined the data collection procedures and research methods that I employed in examining the teaching and learning of synthesis writing in an L2 writing classroom. First, I described in detail the rationale for using an embedded qualitative multiple case studies approach with a two-tail design. Next, I introduced the research context, the classroom teacher, and the student participants. This was followed by a detailed discussion about how data were collected from multiple sources throughout the course. The data analysis occurred simultaneously as the data collection preceded and resumed afterward. Finally, I addressed issues of validity and reliability by discussing triangulation, analytical generalization and the use of a case study protocol.

In the following chapters, I will present the results of the classroom context and the teacher’s task representation of and pedagogical approaches to synthesis writing in Chapter 4. Next, I will report the results emerging from the end-of-semester survey and textual analyses of the students’ synthesis papers in Chapter 5. Then, I provide individual portraits of the two strong and two weak writers in Chapter 6 and Chapter 7, respectively. Finally, discussion of and conclusions about the findings are presented in Chapter 8.
Chapter 4

Findings of Classroom Context and the Teaching of Synthesis Writing

Introduction

This chapter provides a detailed discussion of the teaching-related components of this study of synthesis writing in the L2 writing classroom. The chapter reports on the findings and issues that emerged from the analyses of course-related documents, classroom observation field notes, and three semi-structured interviews with the teacher, who was a novice with respect to teaching synthesizing. The course-related documents, including the syllabus, assignment guidelines, and worksheets, provide material evidence of how the course was structured by the teacher and shaped by the institutional context in which it was offered. The semi-structured interviews with the teacher and the classroom observation field notes offer complementary accounts of the instructional context, the teacher’s task representation of synthesis, and her pedagogical approaches to teaching it. These data sources were triangulated to address the first cluster of research questions:

1. What is the teacher’s task representation of synthesis in a university L2 academic writing course?

2. How does the teacher’s representation of synthesis tasks change throughout the course?
3. How do the teacher’s task representation of synthesis and the institutional context shape her pedagogical approaches to synthesis writing?

An overview of the results delineates a profile of a novice L2 writing teacher’s task representation of synthesis and the instructional strategies she adopted to teach synthesis writing. The discussion in this chapter offers a foundation from which to view the chapters that follow, where the focus shifts to the students’ experiences with and responses to synthesis writing. The students’ understanding of synthesizing will be examined in Chapter 5, while case studies will be presented in Chapters 6 and 7. The current chapter also contributes to Chapter 8, which looks at the study’s findings and contributions relative to the research questions posed while offering an interpretation of what the study found.

This chapter begins with an introduction to the course and the teacher under study. I describe the institutional context of the course and the teacher’s profile. Then, I elaborate the teacher’s construction of synthesis writing, which consists of two aspects: (1) her developmental understanding of synthesis, (2) her representation of synthesis writing tasks in class. Discussions about the teacher’s understanding of synthesis are mainly based on constant comparison among the pre-, mid-, and post- course interviews with the teacher. Analyses of classroom observation field notes and course-related documents combined with the interviews demonstrate the teacher’s representation of synthesis writing tasks in class. In the final section, where I discuss the pedagogical approaches to synthesis writing undertaken by the teacher, the main findings center on the instructional strategies and decisions that the teacher adopted: (1) the use of
metaphors in teaching synthesis writing, (2) the use of model papers in teaching synthesis writing, and (3) reading instruction in teaching synthesis writing. It is worth noting that the multiple data sources—the teacher’s self-reported interview data, the researcher’s observation field notes, and course-related documents—complement one another to provide a thorough understanding of the teaching components of synthesis writing, which, as noted earlier, will serve as valuable resources to explore the learning components of synthesis writing in the subsequent chapters.

The Course and the Teacher

The Institutional Context

This study was conducted in an advanced academic writing course for undergraduate, multilingual (i.e., “international”) students at a major research university in the American Midwest. It will be called the 1902 course from this point onwards. The course was offered by the university’s English as a Second language (ESL) composition program and was required for those international students who had not been exempted from it through high TOEFL scores or a mandatory placement examination. The main objectives of the course were to introduce the skills and knowledge necessary to perform source-based writing and prepare multilingual students to compose academic research papers for other university courses. In this regard the course operated within the English for Academic Purposes (EAP) mode. Both this EAP orientation and the 1902 objectives are common in ESL undergraduate writing courses in North America, which is also why the 1902 course was an appropriate site for the current study. The 1902 course also served as a bridging course for the mainstream first year composition course (1110) required of
all undergraduate students at the university. In the 1902 course syllabus (Appendix A), the learning objectives were stated as:

The 1902 course will focus on the fundamental elements of incorporating sources of knowledge into academic research papers. This will involve reading full-length articles, reflecting on the information, and participating in expanding the knowledge about the theme. There will be a strong emphasis on appropriate use and citation of sources in order to avoid plagiarism. A central goal of the course is to prepare students for writing academic papers for other university courses in which they must use sources to develop and support ideas.

The course description indicated that the main focus was writing from sources, which is a crucial and complex act of academic literacy (Flower, 1990a; Greene, 1993, 1995; Polio & Shi, 2012; Shaw & Pecorari, 2013; Spivey, 1990, 1997). At the same time, the course covered a wide range of topics, including reading academic essays; searching the library database for suitable source texts; paraphrasing, summarizing, quoting; evaluating and documenting sources using proper citation styles; and academic presentation. The two major writing assignments were a short and a long synthesis paper. These were preceded by shorter tasks aimed at preparing the students to complete these two major tasks. The synthesis papers were designed for the students to practice source-based writing while exploring research topics related to their course reading.

The short synthesis paper assignment consisted of the following task components: a topic proposal, an outline, and three drafts of the paper itself. The students were required to choose a writing topic from the course required reading, select another source from the academic database, and synthesize the two sources in the short synthesis paper.

As for the long synthesis paper, students were required to pick a different topic and synthesize two sources from the course required reading and three outside sources. The
task components of the long synthesis paper assignment included: a topic proposal and annotated references, an outline, two drafts of the paper itself, and a poster presentation of the long synthesis paper at the end of the semester. Thus, the short synthesis paper provided a shorter introduction to synthesis writing and offered scaffolding for the more involved synthesizing the students would perform in the longer paper. This relationship between the two tasks gave Ms. Perry a concrete base from which to plan her teaching of synthesis writing.

The curriculum design of the 1902 course was built upon the notion of transfer of learning (James, 2006, 2010; Perkins & Salomon, 1992). The course can be roughly divided into three phrases. In the first five weeks, students learned about rhetorical reading, source-based writing techniques—paraphrasing, summarizing and quoting; and utilizing the library database to access appropriate source texts. In the middle of the semester, they were supposed to apply these reading and writing skills to the short synthesis paper. Toward the end of the semester, students were expected to transfer their knowledge about synthesizing that they acquired in the short synthesis paper to the long synthesis paper. Throughout the semester, students also completed a series of focused writing tasks, which were smaller assignments targeted at specific skills or aspects of academic writing. It was also hoped that students would transfer those skills into their synthesis papers.

**The Teacher’s Profile**

The teacher of the course, Ms. Perry, was a native English speaker in her mid-30s. She held a master’s degree in TESOL and had five years of L2 teaching experience at the
tertiary level, though synthesis writing was relatively new to her. In her masters level TESOL program, she took a graduate course on Teaching Reading and Writing in a Second Language. In that course, she was introduced to the influential instructional approach known as the process writing approach, which has gradually replaced the traditional product-oriented approach. She also found her mentorship program particularly beneficial for her development as a writing instructor. She learned how to be reflective as a teacher and how to provide corrective feedback to students’ writing. However, an analysis of Ms. Perry’s background experiences revealed that although she had taught English for five years, she was still developing her epistemology of L2 writing instruction. It was this background that classified her as an early-career L2 writing teacher. Thus, it would be meaningful to track her development as a teacher of synthesis writing, and this is partly what made her an ideal teacher participant for this study.

Ms. Perry also held strong beliefs about the transfer of learning in writing classrooms. In the pre-interview, she considered the course as “a stepping-stone” for second language learners before they took the mainstream first year composition course (1110). She believed that L2 students should “have a certain threshold of knowledge about English composition and rhetoric” before they moved onto other writing-related university courses. The knowledge that L2 students should grasp about English composition and rhetoric, in her view, included analytical writing, library skills and learning the proper citation styles, which were congruent with the course learning objectivities determined by her program. When she was asked what goals she wanted the students to achieve in her course, she responded:

What I want them to achieve is … general knowledge about APA, general
knowledge about quoting, paraphrasing and summary, [to] increase their analysis skills, and use the library online database. (Pre-course interview, 2/4/2014)

In the subsequent interviews, Ms. Perry was very consistent about promoting transfer of learning. She hoped that the students could apply the knowledge gained from previous writing tasks to the later tasks within her course and from this course to their future classes. For example, in the mid-interview when she talked about the structure of English academic papers, she stressed that because multilingual students might have different cultural and rhetoric understanding about the structure of essays arising from their native language (L1) background, they had to learn “the basic structure of an English essay so they know how to write future papers for professors” (2/4/2014). However, the teacher also realized that transfer of learning did not always occur easily. In the final interview, Ms. Perry spoke to the difficulty of transfer of learning from one context to another:

I assume that because we did it with short synthesis, they are gonna understand it for long synthesis, and that’s not true. Some of these students I had last semester, I assumed they remember something, but they forgot. So that’s a hard lesson I learn; a lot of them struggle with reference page, with the quotations, with incorporating the quotes into … making a smooth transition between a quote and their own thoughts about that quote. (Post-course interview, 5/21/2014)

This is an important statement, in that Ms. Perry recognized at the end of the course that there were challenges to student learning related to source-based writing as well as transfer of that knowledge. As such, these comments provided an especially useful backdrop from which to view Ms. Perry’s own journey regarding synthesis writing during the 1902 course.

In summary, the institutional context in which the 1902 course was situated put writing from sources, particularly synthesizing, at the core of academic literacy. It was
believed that multilingual students needed to acquire these essential literacy practices in order to be successful in their university education. The course instructor, Ms. Perry, also highly valued students’ ability to analyze and synthesize sources in composing academic research papers. She considered that being able to transfer this complex but fundamental knowledge about source use was critical for multilingual students’ academic success.

The Teacher’s Construction of Synthesis Writing

The Teacher’s Developmental Understanding of Synthesis

Synthesis writing involves “hybrid acts of literacy” (Spivey, 1990, p. 259) in which reading and writing influence each other interdependently. According to the constructivist model of discourse synthesis proposed by Spivey (1990, 1997), discourse synthesis is the process in which readers/writers construct meanings and create their own texts from multiple sources they have read. Spivey stated that three sub-processes—organizing, selecting and connecting—are pertinent to the comprehending and composing processes of a discourse synthesis. It must be noted that the instructor, Ms. Perry, was not aware of this or any other theoretical knowledge about discourse synthesis, nor did she receive specific training on synthesis writing instruction. Hence, she was in essence trying to develop her own understanding of synthesis writing while teaching the 1902 course, a task that was certainly not easy, even with the availability of weekly course meetings at which those teaching sections of the 1902 course met and discussed their teaching of it. Given the complex reading and writing activities related to synthesizing and the importance of synthesis in the 1902 course, it is crucial to investigate her understanding of synthesis throughout the course, which will help contextualize how she
represented synthesis writing tasks in classroom contexts.

**Initial understanding of synthesis.** At the beginning of the semester, Ms. Perry viewed synthesis as a general research paper but was able to pinpoint some important features of synthesis. In the initial interview, she summarized her understanding of synthesis as follows:

> Synthesis is integrating their [students’] ideas with another author’s ideas, and not just one author but two or three or four authors and just to see things in a new light or answer their research question or to come up with new ideas, to find a new way to think about their topic. (Pre-course interview, 2/4/2014)

To further elucidate the complex processes of the synthesis writing tasks in the 1902 course, Ms. Perry unpacked the concept of synthesis into several key elements. Synthesis writing involved selecting quality sources, organizing the paper in a cohesive and concise way, having good analyses, and properly addressing the research question posed. Here it seems that although Ms. Perry did not have any theoretical knowledge about the discourse synthesis model, she was able to identify two important sub-processes—selecting and organizing. Furthermore, she made a clear distinction between integrating ideas through analyzing sources versus responding to sources. She said that “[for] a good synthesis, the students need to analyze and use their own ideas with the ideas of the other authors … [to] integrate that idea into their own idea and come up with new ideas, instead of just making a comment about it” (Pre-course interview, 2/4/2014). This distinction between analyzing sources and responding to sources further reveals an important feature of synthesis writing, which is creating new ideas based on the integration of sources. Thus, at this point it is safe to say that Ms. Perry had a basic working knowledge of synthesis, even though her understanding of synthesis was not
informed by theory. She was able to articulate the important components of synthesis writing, for example, selecting reliable sources, organizing, analyzing and integrating sources.

**Continuing understanding of synthesis.** As the 1902 course progressed, Ms. Perry recognized that synthesis writing was a new type of academic literacy for her students. It is worth noting that Ms. Perry had also taught the first course (1901) in the ESL program’s writing course sequence, which her students had just completed the previous semester. Thus, she was very familiar with the types of writing tasks her students had done previously as well as their characteristics as writers, as seen in the interview segment shown earlier. As such, she had considerable context to work with in teaching these students in the follow-up 1902 course. Compared to the previous writing tasks in the 1901 course, such as summary, critical review, and evaluative essay, Ms. Perry argued that synthesis was different from those source-based writing tasks, because the students were reading multiple source texts and using that information to create new knowledge and new ideas. Given that synthesizing was a new type of academic literacy not performed in most of her students’ first language cultural and rhetorical traditions and not practiced in the 1901 course, Ms. Perry realized that it might pose a significant challenge for her multilingual students to acquire. In this respect it could be said that she was prepared for struggles the students might encounter while learning to synthesize and thus had opportunities to anticipate those struggles in developing her plans for teaching synthesis writing.

However, when she introduced the short synthesis paper, Ms. Perry’s primary
instructional focus was rhetorical in nature, with a strong emphasis on organization. As she explained in the mid-course interview: “What I think are the most important things they need to learn is the basic general concept of western style research paper, the structure” (4/4/2014). It is perhaps no surprise that the teacher emphasized the organizational aspect of synthesis paper writing, as organizing is one of the three sub-processes of discourse synthesis noted earlier. This might also have been due to the fact that the students were experiencing their first encounter with synthesis writing, and organization, due to its visual nature, would be easier for students to grasp. Providing a visual representation of how such a paper can be structured represents a logical starting point for learning about synthesizing, though Ms. Perry did not provide any conceptual knowledge about synthesizing that might help her students establish a deeper foundation in understanding it as a rhetorical act. Instead, Ms. Perry’s focus was on a surface-level depiction of synthesizing, perhaps because she felt that, developmentally speaking and based on her experiences with them in the 1901 course, this depiction was what the students could best handle at that point. She also knew that the longer synthesis paper would be dealt with later in the course and perhaps felt that initial discussion of that task would be a better place to lay a deeper conceptual foundation for synthesis writing. Meanwhile, the other two sub-processes of discourse synthesis—selecting and connecting—were given very little attention in this teaching unit. It appeared that Ms. Perry wanted to lay a foundation of global understanding of synthesizing before delving into its more complex intertextual dynamics.

**Final understanding of synthesis.** After finishing the instructional unit
surrounding the short synthesis paper, Ms. Perry continued teaching the long synthesis paper. Several weeks after the mid-course interview, she stated that her understanding of synthesis writing had evolved. She highlighted the essence of synthesis and the importance of source use in the final interview:

Actually my ideas about synthesis paper have changed. To include synthesis is like coming together of different ideas and creation of new idea. Whereas before like last year, I kind of just took it as a general research paper but it is not. It’s the coming together of ideas and thinking and analyzing those ideas. Another thing I didn’t consider last time, which I thought about more this year is the resource-based … The sources are the most important and then their personal experience can exemplify or support the source. (Post-course interview, 5/21/2014)

Thus, by the end of the semester, Ms. Perry had developed, on her own, a more comprehensive understanding of synthesis, one that was somewhat aligned with discourse synthesis as defined by Spivey (1990, 1997). That is, when synthesizing sources, writers not only transform the source texts but also construct new meanings in their own texts. She also highlighted the significant role of sources in composing synthesis papers, which she admitted that she did not pay much attention to when teaching the short synthesis paper. This is partially due to the complexity of long synthesis paper in which the students had to include significantly more sources in their papers. Furthermore, Ms. Perry had realized that it was insufficient to just focus on organization; instead, she viewed establishing intertextual links among multiple sources as a critical component of synthesis writing. What is especially interesting here is how quickly this realization came about, as the long synthesis paper assignment followed shortly after the short synthesis paper. This suggests that Ms. Perry was actively engaged in a process of defining the tasks and building her own understanding of synthesizing,
rather than moving without much thought from one task to the other. It thus appears that she was taking very seriously the teaching of synthesis writing. In the following part, I examine how Ms. Perry translated her understanding of synthesis to representing the writing tasks in class.

**The Teacher’s Representations of Synthesis Writing Tasks**

In order to understand how students interpret and carry out synthesis writing tasks, it is crucial to examine the teacher’s representation of tasks, as this provides a benchmark to examine the accuracy and appropriateness of students’ task representation. Flower (1990b) defined “task representation [as] an interpretive process that translates the rhetorical situation—as the writer reads it—into the act of composing” (p. 35). She emphasized that task representation is “not a single, simple decision, but an extended interpretative process that weaves itself throughout composing” (p. 36). This is an important topic with respect to writing research, and it is especially interesting and important in the context of L2 writing, since L2 writers may bring to the L2 writing course representations of tasks based on their L1 background. In this respect, L2 writers could be said to have to negotiate two levels of task representation (compared to one for L1 writers): the task representations formed through their L1 writing education and experience, and the new (L2) representations being presented in their target language writing course.

The majority of research on task representation has focused on students’ perspectives, namely, how students conceptualized or represented the rhetorical situation and performed the writing task. Very little research has looked at teachers’ task
representation, particularly from a developmental perspective, and yet it is the teacher’s
representation that students are responding to when forming their own task representation
and performing the assigned tasks. This makes it especially important to understand task
representation where it actually starts in the writing classroom: with the teacher and how
the teacher describes and approaches assigned writing tasks. After discussing the
teacher’s understanding of synthesis, this section delineates Ms. Perry’s representation of
the two synthesis writing tasks in the classroom context.

**Task representation of the short synthesis paper.** In the fourth week of the
instructional unit, the teacher introduced the concept of synthesis to the students. The
following field note captured the very first discussion about the synthesis paper in class.

The instructor first asks the students whether they know what synthesis means. Most students
shake their heads. The instructor provides some hints: synthesis is a noun and the verb is to synthesize, but the students remain silent. Then the teacher explains that synthesis means to put information together from different places. She emphasizes that students need to incorporate not only information from the course reading and articles from the database, but also their own thoughts. She says “what you need to do is take ideas from both places, and your own ideas, put it [sic] together to either make an argument, to explain cause or effect, to make a new thing, to give new information.” (Classroom field note, 2/5/2014)

Previously, Ms. Perry and her students had worked on paraphrasing, summarizing,
responding, searching academic databases, discussing the course readings, and
brainstorming research ideas. In this instructional unit, after introducing the concept of
synthesis, Ms. Perry discussed different types of papers, such as cause and effect,
comparison, argument, problem and solution, and so forth. As seen in the field notes
below, she viewed students’ own thoughts an integral part of synthesis. This view was
reified in other course-related materials that she gave to the students, including the
guideline and the outline of short synthesis paper.

One week after the introduction of synthesis, Ms. Perry provided the guideline of short synthesis paper to the students. The guideline included information about source use (i.e., summarizing, quoting, and paraphrasing), assignment requirement (i.e., length, source and citation requirements), and overview of the writing process (i.e., writing steps, feedback, tutorial plan). She also provided a general suggestion to the students on how to begin their synthesis papers: You may use your personal experiences as a starting point and use evidence from the articles to support your discussion or you may start with information from the articles and support them with your own thoughts. (Classroom field notes, 2/14/2014)

In the guidelines for the short synthesis paper (Appendix I), Ms. Perry told the students to make connections between personal experiences and evidence from the sources. Furthermore, she offered some tips on how to use sources to support a point in their papers. For example, “summarize when the main point(s) of a passage, paragraph, or article are enough to support your point; quote when the original words are special or unique; paraphrase when the information is more important than the way in which the idea is expressed” (Guideline of short synthesis paper, 2/14/2014, emphasis in original).

In order to scaffold her students’ composing processes for the short synthesis, Ms. Perry took a process-oriented approach and included several smaller assignments, such as a topic proposal, an outline, and three drafts of the paper itself. In the outline for the short synthesis paper (see the first column of Table 4.1 below), the students were asked to write down their own thoughts, the name of the source, and how they planned to use the sources (i.e., to summarize, quote or paraphrase). Thus, the outline further prompted the students to connect their own ideas to the sources. Ms. Perry explained in the interview that she made such instructional decisions because she was largely influenced by her previous training in graduate school and the current institutional practices of process-
oriented teaching. What we see here is that Ms. Perry was attempting to lay a careful foundation for synthesis writing, including some opportunities for scaffolding. On the other hand, she appeared to be treating synthesizing in a somewhat decontextualized manner, in that she was not drawing attention to its longer term importance for students’ academic writing. It was treated as a task in itself, not as part of the larger picture of academic writing in English. In this regard, it could be said that Ms. Perry was not creating what James (2010b) has called a “transfer climate” that helps students envision ways of transferring knowledge and skills from one context to another.

Task representation of the long synthesis paper. Five weeks later, when the class began to work on the long synthesis paper, Ms. Perry explained to the students that the two synthesis papers were basically the same, except for the length and the number of sources. She described the purpose of the two assignments as follows:

So the point of being a small and a large papers, two assignments is just more practice basically. So the small assignment, the 4-6 pages paper is more guided, like I tell them what they can use in their papers; whereas the 6-8 pages paper is more free, like they are allowed to choose more of their own sources. And they are required to have more sources. (Pre-course interview, 2/4/2014)

In this instructional unit, Ms. Perry continued emphasizing process teaching. She reflected on her decisions and changed her instructions in response to the students’ learning outcomes during the short synthesis task. For the long synthesis paper, she decided to include an annotated bibliography along with the research proposal, because she noticed that the students did not think of their sources much in the short synthesis. Thus, she hoped that they could analyze and think more about their sources before they wrote their thesis for the long synthesis. She also recognized the insufficiency of the
Outline for short synthesis paper and revised the outline for long synthesis paper (see the second column of Table 4.1), to show her students how to analyze and synthesize information from different sources. Table 4.1 demonstrates the similarities and differences between the two outlines.

<table>
<thead>
<tr>
<th>Short synthesis outline</th>
<th>Long synthesis outline</th>
</tr>
</thead>
<tbody>
<tr>
<td>a) Your thoughts:</td>
<td>a) Your thoughts:</td>
</tr>
<tr>
<td>b) Name of source:</td>
<td>b) Name of source:</td>
</tr>
<tr>
<td>c) Quote/Paraphrase/Summary:</td>
<td>c) Quote/Paraphrase/Summary:</td>
</tr>
<tr>
<td>d) Conclusion/Transition sentence:</td>
<td>d) Your response to this source:</td>
</tr>
<tr>
<td></td>
<td>e) Relationship to another source:</td>
</tr>
<tr>
<td></td>
<td>f) A synthesis of these thoughts:</td>
</tr>
<tr>
<td></td>
<td>g) Your thoughts about this synthesis relationship:</td>
</tr>
<tr>
<td></td>
<td>h) Conclusion/Transition sentence:</td>
</tr>
</tbody>
</table>

Table 4.1: Comparison of Short and Long Synthesis Paper Outlines

The above comparison reveals that Ms. Perry recognized the vital role of source use in composing synthesis papers, not simply the types of source-based writing strategies, such as direct quote, paraphrase and summary, but more importantly the significance of establishing intertextual links among multiple sources. Although her instruction still focused on the organizational aspect of synthesis writing (see the classroom artifact in Appendix J), Ms. Perry began to develop her own strategies to deal with the complex intertextual dynamics. She further elaborated her pedagogical decisions in the mid-course interview:
In the short synthesis outline, I asked what’s your thought? What’s the quote? Where does it come from? That’s it. That’s not enough; that doesn’t really teach them how to be analytical and how to synthesize. The whole concept of synthesis is to bring these sources together. So in their outline for the long synthesis paper, I want to ask: What is your idea about this? What is a quote or paraphrase from someone else? And what do you think about that quote? And then the next point is how does this quote relate to your other sources? And then the next one is what do you think about the relationships between these two sources? (Mid-course interview, 4/4/2014)

In brief, although the teacher presented the two writing assignments very similarly in class, the classroom observation field notes and course-related documents combined with the teacher’s interviews demonstrated that Ms. Perry had developed an enlarged understanding of synthesis as the course progressed—seeing synthesis not merely as a general research paper, but rather as the skillful integration of sources and creation of new knowledge. On the other hand, Ms. Perry seemed to treat the long synthesis paper as continuing rehearsal of synthesis writing, assuming that the students would transfer the knowledge they acquired from the short synthesis paper to the long synthesis paper. Because she employed similar scaffolding activities, such as writing topic proposal and outlining, the students probably felt quite familiar with the composing processes; but other teaching support was rather limited, especially with regard the complex acts of source integrations. Thus, Ms. Perry did not generate a more helpful “transfer climate” by drawing explicit connections between the short and long synthesis tasks. This further explains her struggle with transfer of learning as she reported in the post-course interview: “I assume that because we did it with short synthesis, they are gonna understand it for long synthesis, and that’s not true” (5/21/2014). Here, it is really interesting to observe the discrepancy between Ms. Perry’s self-reported belief in transfer
of learning and the lack of “transfer climate” she created in the actual classroom. It is likely that she recognized the insufficiency of her teaching practices after teaching the long synthesis paper, thus did not have additional opportunities to address the problems, with the possibility that her teaching will continue evolving after this course. In the next section, I discuss the teacher’s specific pedagogical approaches, namely, her strategies and decisions to cope with the instructional demand of the sophisticated synthesis writing tasks.

The Teacher’s Pedagogical Approaches to Synthesis Writing

The Use of Metaphors in Teaching Synthesis Writing

An essential strategy that Ms. Perry employed to facilitate students’ understanding of synthesis was the use of metaphors. She tried to introduce the new concept of synthesis to her students through metaphors, as seen from the following interview except:

So what I did [in the beginning of the short synthesis], I had them looked up the word synthesis. I said, “Does anyone know what synthesis means?” So they looked it up “Oh, it means like blending, putting things together, bringing two things and making one thing.” I said “Yes, this is the dictionary definition of synthesis, so we need to do that in our paper. So how do we do that?” So I kind of took baby steps but at the same time they forgot. In the long synthesis I said, I was a little bit dramatic, and I said, “Oh no, did we forget what synthesis means? Does anybody remember what synthesis means?” And some of them were like “No we forget.” Some of the said “Oh, I remember it’s bringing together.” And I said, “Exactly, so you have all these sources, so you have to bring all of them together in a different way to talk about the same topic.” (Post-course interview, 5/21/2014)

She also used the metaphor of conversation to explicate the concept of synthesis. She told the students that when synthesizing sources, they were having conversations with different source authors. She explained in class:

So it is like a conversation. You go back, you talk to the same person again and
again. You repeat your ideas, you don’t just say one thing one time and you are done with your conversation… You are combining all your sources and all your ideas so your sources should come back within the same paper because it’s within the same conversation. (Classroom field notes, 3/28/2014).

Furthermore, when teaching the students how to use sources in an essay, Ms. Perry employed another interesting metaphor which she called “Quote/Paraphrase/Summary Sandwich” to illustrate how to incorporate sources smoothly into an essay. She described the signal phrase as the “bun,” the actual source texts as the “meat,” and the explanation or interpretation of the source texts as another piece of the “bun.” Ms. Perry also provided writing templates for her students to appropriate these steps. However, the classroom observations showed that the students were more amenable to another teaching strategy—the use of model essays, which is discussed in the following section.

The Use of Model Papers in Teaching Synthesis Writing

Although the use of model papers has often been criticized by writing scholars for their lack of effectiveness and misrepresentation of the writing process itself (which involves more than rote copying of the structure of model essays), it has been commonly used as a pedagogical tool to teach writing and to clarify teachers’ expectations (Macbeth, 2010). Ms. Perry faced a similar dilemma of using model papers in teaching synthesis writing. In the first interview, she identified a major problem of L2 students’ writing; that is “a lot of students look for a formula” and they don’t “write with their own voice.” Hence, she was aware of the limitations of models. When I asked whether the students asked for models, Ms. Perry expressed her struggle with using model papers in her class:

A lot of times they do want model paper. That’s something I’m really torn with, like coz I have a lot of colleagues who say, “Don’t use a model paper because the students would just copy.” And other people say, “You should use a model paper because it helps them understand more what you are looking for.” So right now I
As Ms. Perry mentioned in the interview, she did not want her students just to copy the model; instead, she presented two example papers written by previous successful students after discussing the overall organizational structure of a synthesis paper (Appendix J). The whole class looked at the example papers (Appendix K) together and analyzed the various rhetorical moves the student writers made, and they discussed what the student writers did well and not so well. The following field notes captured the gist of the class discussion:

The teacher projects the example paper onto the screen and asks the students to read it and identify the different parts of the introduction paragraph, for example hook, background information, and thesis statement. The teacher also explains to the students that they can also include their research questions before stating the thesis. She analyzes the thesis to demonstrate the three key components—topic, focus and thesis points. After analyzing the introduction, the teacher moves onto the first body paragraph. She gives the following instructions: “What I want you to find are topic sentence, concluding sentence, and I want you to figure out what information belongs to the student writer and what information belongs to his/her sources.” The teacher gives the students five minutes to read this paragraph. Five minutes later, the teacher asks the students to analyze and identify the different components. (Classroom field notes, 2/14/2014)

The discussion and analysis of example papers were helpful in at least two ways. Firstly, the teacher was able to demonstrate the organization of a synthesis paper using concrete examples, which helped to reinforce the previous discussion about organizational structure (Appendix J). Secondly, the example papers provided some tangible evidence for the students to appropriate the key rhetorical moves in academic writing (Graff, Birkenstein & Durst, 2009; Harris, 2006), such as making a claim, encountering the sources (e.g., framing the quote/paraphrase/summary, citing the source), forwarding the
ideas of the sources (e.g., extending the quote/paraphrase/summary), and connecting
different sources and voices (e.g., illustrating using writer’s examples or opposite
examples or another sources). Furthermore, these two points were also confirmed by the
students based on the stimulated-recall interviews, which will be discussed in detail in
Chapters 6 and 7. However, even though the examples were helpful, Ms. Perry still held
ambivalent views about the use of models in teaching L2 writing in the mid-course
interview:

I think the model essay is helpful. But I’m really not [sure]… I know in the past
my professors have given us model essay and it really helps. But that was in
graduate school. So I don’t know if giving these freshmen a model essay, it would
help close their minds instead of open their minds. You know when you don’t give
them a model, they kind of do what is inside of them, what they want to do. But
when you give them a model, they feel that they have to do it this way. So model
essay is helpful but has to be used carefully. (Mid-course interview, 4/4/2014,
emphasis in original)

On the one hand, Ms. Perry admitted that models were helpful to some extent, and she
was influenced by both the institutional force of using models to teach writing and her
own learning experience as a graduate student. On the other hand, she expressed her
struggle over giving students a model (“that’s something I’m really torn with”) because
she worried that a model paper might “help close their minds instead of open their
minds.” It seems that Ms. Perry began to develop her own approach to coping with the
tension. Instead of calling it a model, she used several examples to demonstrate possible
ways of synthesizing sources and the various rhetorical moves the students can make in
their synthesis papers. In this way the focus was on examples, which convey less of a
sense of a template for doing something, than a model, which carries the direct weight of
being seen as a template. She also tried to locate better examples from the course
readings to illustrate how to organize their papers and support their arguments.

Despite the care taken by Ms. Perry, a point that must be made is that she was only treating the surface level appearance of a synthesis paper, not the actual operations involved in making connections across sources. In establishing those connections, organization plays only a very small role, and more complex acts creating various relationships between source text materials are necessary for a synthesis to work effectively. Thus, a paper may look on the surface like a synthesis paper, but analysis of the synthesizing itself may reveal that it is in fact a poor synthesis paper. Synthesizing is what takes place inside the organizational structure, not the structure itself. In this regard Ms. Perry was not really preparing her students to synthesize, though it could be argued that, developmentally speaking, she was asking them to do all that she felt they were capable of at that point in their growth as L2 writers. Moving beyond structure was something that she may have been assuming would happen at later stages of their development, so that she was teaching relative to their cognitive readiness to synthesize at that point in time.

**Reading Instruction in Teaching Synthesis Writing**

Since the course was based on a reading-to-write approach (Hirvela, 2004), the students read a collection of academic essays and found research articles in the database to compose their synthesis papers. Thus, reading instruction was an integral part of this writing course. In the initial interview, Ms. Perry showed her intuitive understanding of the significance of reading instruction:

I think reading is very important because if the students don’t know how to read, they won’t know how to write. Like reading helps them … being a good reader can help you be a good writer. (Pre-course interview, 2/4/2014, emphasis in
Ms. Perry continued to discuss how she implemented reading instruction in her L2 writing course. She discussed pre-reading (e.g., skimming and strategic reading) and suggested students pre-read the introduction, the conclusion, and the topic sentence of each paragraph so that they could obtain a gist of the essay. As a whole class, they analyzed the organizational structure of the assigned course reading text and made an outline of that text. Through the analysis and outline, she made explicit connections between the reading text and students’ synthesis writing. Below is how she explained the connections between reading and writing:

I ask them [the students] what transitions did the author use to help you read the essay. What transitions did you see or show that he is talking about his next topic? What did you see that he is talking about the same topic that he mentioned before? And then I say you see this author is really a good writer. You can use this example in your writing. (Pre-course interview, 2/4/2014, emphasis in original)

Ms. Perry further elaborated the three reasons why reading instruction benefits writing in the second and final course interviews. The first reason, as she summarized, was to see examples of different writers; in other words, students should be exposed to a variety of writing styles. The second reason was to discuss and gather ideas for their synthesis papers. Most of the reading texts were complex academic essays; so, she hoped that “[reading] instruction and clarification of these complicated ideas, sentence structures, and new vocabulary help them when they go on their own to read the articles they find by themselves” (post-course interview, 5/21/2014). Finally, after comparing different writing styles, the students could use the good writing as a model and transfer that knowledge (e.g., good transitions, clear outline) to their synthesis writing.
Although Ms. Perry had developed a fairly comprehensive understanding about the importance of reading, she still indicated that improvements need to be made to integrate reading and writing in more efficient ways. Here it should be noted that she was required to use some source material assigned by the course coordinator, and she saw limitations in that material. Ms. Perry argued that even though the course readings included different writing styles—both professional and conversational essays—the reading texts should be “more akin toward what the students are actually doing.” She considered that the most similar genre to synthesis writing was the research article and explained that:

The academic research articles they find on their own have all the steps that they are required to have in their synthesis papers. So they see examples of how those researchers quote other authors, and how they all have a reference page, and how those researchers have a certain title, which explains what the paper is about. So hopefully that can be a modal for their own work. (Post-course interview, 5/21/2014)

Consequently, Ms. Perry suggested gathering a collection of academic research articles on a variety of topics and using those as course texts or required reading. At the end of the final interview, she again stressed that point:

I think the required reading needs to be more relevant to, more similar to what the students are actually writing. That’s way they can see examples of good academic writing throughout the semester, as what they are supposed to be writing. (Post-course interview, 5/21/2014)

Ms. Perry’s focus on reading instruction is an interesting and revealing aspect of her overall task representation for synthesis writing, in that she wanted the students to see synthesis writing as related to the input they acquired as readers before moving on to the various acts of writing. In this regard she wanted the students to see themselves as
readers, and active readers at that, instead of limiting themselves to the notion of being writers. This attempt at linking reading and writing had the potential to better equip the students to synthesize because it presented a whole picture of texts at work, and in the process generated conditions conducive to some transfer from reading to writing, which is essential in quality source-based writing.

Summary of the Teacher’s Task Representation and Pedagogical Approaches

In a nutshell, the above results yield an overall picture of the teacher’s task representation of and pedagogical approaches to synthesis writing. The detailed descriptions reveal that Ms. Perry was being rather reflective about her pedagogical approaches: Her teaching was influenced, but not completely shaped by, the institutional practices. She found space for her own views and approach as well. However, this was still a work-in-progress for her. She was still developing her own epistemology of synthesis writing instruction, in particular integrated reading-writing instruction. Thus, as Ms. Perry negotiated institutional forces and her own ideas, she was fostering her own writing teacher identity (Lee, 2010, 2011) through which she coped with the tension between the institutional forces and her emerging professional self in order to construct an approach that worked for her and for her students.

What was also notable about Ms. Perry was the rather restricted notion of synthesis writing she worked from, though that might have been shaped (at least in part) by her evaluation of who she was teaching and what she felt they were developmentally capable of doing as L2 writers at that point in time. To what extent her task representation of synthesis writing was calibrated to her sense of her students’ readiness for synthesizing
is difficult to determine. However, her task representation of synthesizing confined it mainly to a matter of correct organization, thus ignoring the more complex layers at the heart of good synthesizing and thereby restricting students’ opportunities to work with those layers. Also noteworthy was her seemingly decontextualized representation of synthesis writing, which she apparently never connected to the larger domain of the academic literacy practices students would be expected to command in other courses they were taking or would take later. In this respect she gave the students no sense of the importance of the transfer possibilities related to what she was teaching them, despite her own belief in the importance of transfer in writing instruction. She wanted them to transfer what they were learning in her course but apparently did not draw attention to those transfer dimensions. This failure to act on her own belief in the importance of transfer was puzzling. So, too, was the fact that she did not draw explicit connections between the two synthesis assignments in her course. To promote the transfer she felt was important, it would have helped, from a task representation perspective, to show the students immediately upon introducing the short synthesis task that they would be practicing synthesis-related acts that would be realized more fully later in the long synthesis paper, thus providing extended opportunities to engage in synthesizing. Providing such information would have helped the students see, or at least sense, the transfer opportunities that existed across the two tasks, and this might have added to their motivation to work on synthesizing. Without such information, as well as connections to academic literacy tasks beyond the 1902 course, the students were left to work with what might be considered a narrow or incomplete task representation supplied by Ms. Perry.
Summary

In this chapter, the triangulation of the semi-structured interviews with the teacher, classroom observation field notes, and course-related documents delineated a developmental trajectory of an early-career writing teacher’s task representation of and pedagogical practices related to synthesis writing in a L2 composition classroom. To answer the research questions that this chapter responds to, several major findings emerged from the data analysis:

First, the teacher constructed her representation of synthesis tasks as her teaching unfolded throughout the course. In the beginning, she viewed synthesis as a general research paper but identified some key components of synthesis writing, including selecting reliable sources, organizing the paper cohesively, and bringing together different sources. Around the middle of the course, the teacher stressed the organization of “the basic general concept of western style research paper” but began to realize that the crucial component of synthesis writing is connecting multiple sources. Toward the end of the semester, she developed a more thorough understanding of synthesis, one that was somewhat, and at least superficially, aligned with the constructivist model of discourse synthesis proposed by Spivey (1990, 1997). That is, seeing synthesis not merely as a general research paper, but rather the careful selection, organization and skillful integration of sources as well as the creation of new knowledge. Ms. Perry’s task representation of synthesis further influenced her teaching practices of synthesis writing in class. She seemed to be quite successful in tackling the organizing and selecting operations of synthesis writing, but found connecting or integrating sources particularly
challenging in her teaching practices.

Second, both the institutional context and the teacher’s representation of synthesis tasks influenced her teaching practices. The institutional context promoted transferring the knowledge about synthesizing to other university learning contexts. The teacher echoed the institutional expectations in her own understanding of them but also realized that transfer of learning did not happen easily, especially with regard to the complex literacy task such as synthesis writing. The institutional context also exerted tremendous impact on the teacher’s pedagogical approaches, such as teaching writing as a process instead of as a product, being reflective as a teacher, and using model papers. However, the teacher was not completely constrained by the institutional forces; rather, she was developing her own epistemology of synthesis writing instructions, including integrated reading-writing instruction. Despite being early in her early professional career, the teacher was cultivating her own writing teacher identity in which she constantly negotiated the tension between the institutional forces and her emerging self as a professional. On the other hand, she was apparently not yet prepared to present to students a task representation for synthesis writing that was comprehensive and would help them understand synthesis conceptually as a form of academic literacy. Perhaps a more informative task representation will emerge in her future teaching as her own understanding of synthesis writing is enlarged.

In sum, the analyses of the teacher interviews, classroom observation field notes, and course-related documents illustrate the teaching components of synthesis writing; however, these data need to be interpreted in tandem with students’ learning experiences
with synthesis writing, which is the focus of the following chapters. Since the teacher stressed being reflective in response to students’ learning, it is vitally important to investigate the reciprocal relationships between the teaching and learning of synthesis writing, as the next few chapters will do.
Chapter 5  
Findings Regarding the Students’ Perceptions and Performances of Synthesis Tasks  

Introduction  
In Chapter 4, I discussed the teaching component of synthesis writing, including the teacher’s task representation of synthesis and her pedagogical approaches to synthesis writing. This chapter shifts the focus from the teacher to the students. First, I examine the students’ responses to the writing tasks that they completed in the course and their reactions to the teacher’s classroom instruction, using the survey data collected at the end of the semester (Appendix D). This data provides an overview of the interaction between teaching and student learning. The findings center on three domains: 1) the students’ perceptions of the usefulness, enjoyment in terms of writing, and difficulty of the major writing tasks (including the short and long synthesis papers); 2) the students’ perceptions of the usefulness of process-oriented (smaller) writing tasks and teacher individual support in composing the two synthesis papers; 3) the students’ perceptions of the usefulness of classroom activities and instruction in developing their synthesis writing abilities.  

After constructing a general picture of the students’ perceptions, I examine the quality of their synthesis papers based on textual analyses of their written products.
Aligning with the theoretical framework of discourse synthesis (Spivey, 1990, 1997; Solé, Miras, Castells, Espino & Minguela, 2013), the textual analyses include organization, selection and integration of sources. To further understand students’ strategies in their source use, I also look at their choices of summary, paraphrase and direction quotation in the synthesis papers. The purposes of the textual analyses are twofold: to assess the students’ writing abilities in composing a synthesis and to describe the features of ‘good’ synthesis papers written by second language students.

Finally, I describe the students’ task representations of synthesis throughout the course. Based on the textual analyses of their synthesis papers, I outline the overall patterns of strong, average and weak writers’ changing understandings of synthesis in the beginning, middle and end of the course. The analyses draw largely from a comparison between different student interviews: the initial background interview and the two stimulated-recall interviews in the middle and toward the end of the semester, respectively. The discussion about Ms. Perry’s task representations of synthesis writing in Chapter 4 provides an important baseline to interpret the students’ understanding of synthesis. According to their performances on the synthesis tasks, I select four focal participants—two strong and two weak writers—to conduct multiple case studies presented in Chapter 6 and Chapter 7.

**The Students’ Responses to Writing Tasks and Classroom Instruction**

**The End-of-the-Semester Survey**

The end-of-the-semester survey (Appendix D) elicited the student participants’ reactions to the course assignments, the writing processes used for composing the
synthesis papers, and teacher individual support for synthesis writing, as well as the teacher’s classroom instruction. The survey had six items and was designed based on a four-point scale. In the first three items, the students were asked to rate the levels of usefulness, enjoyment, and difficulty of the five major writing tasks (i.e., summary and response, short synthesis, long synthesis, poster observation report, and poster presentation). The four-point scale ranged from 1 (not useful/enjoyed/difficult), 2 (slightly useful/enjoyed/difficult), 3 (moderately useful/enjoyed/difficult) to 4 (very useful/enjoyed/difficult). The fourth item asked the students to rate the usefulness of the smaller writing tasks and teacher individual support during the short synthesis writing processes (i.e., topic proposal, outline, tutorial and written feedback). The fifth item was the same as the fourth one, but asked about the long synthesis task. Because the teacher adjusted her instruction to meet the needs of the long synthesis paper, in addition to the above-mentioned four tasks, two more assignments/activities (i.e., annotated references and peer review) were added. The last item in the survey asked the students to rate the usefulness of a variety of classroom activities and instruction utilizing the same four-point scale. In the following sections, I report the descriptive results of the survey summarized in three tables below. The connection between the students’ perceptions and the teacher’s instruction will also be discussed.

**Perceptions of the Usefulness, Enjoyment and Difficulty of Major Writing Tasks**
<table>
<thead>
<tr>
<th>Major Writing tasks</th>
<th>Usefulness</th>
<th>Enjoyment</th>
<th>Difficulty</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Summary and Response</td>
<td>3.00</td>
<td>0.94</td>
<td>2.40</td>
</tr>
<tr>
<td>Short Synthesis Paper</td>
<td>3.50</td>
<td>0.71</td>
<td>2.90</td>
</tr>
<tr>
<td>Long Synthesis Paper</td>
<td>3.60</td>
<td>0.70</td>
<td>2.50</td>
</tr>
<tr>
<td>Poster Observation Report</td>
<td>2.50</td>
<td>1.35</td>
<td>3.20</td>
</tr>
<tr>
<td>Poster Presentation</td>
<td>2.80</td>
<td>0.92</td>
<td>3.50</td>
</tr>
</tbody>
</table>

Table 5.1: Perceptions of Major Writing Tasks of Ten Student Participants

Table 5.1 demonstrates that the student participants mostly recognized the usefulness of synthesis writing in developing their academic writing ability in English, as shown from the mean scores for the short and long synthesis papers (3.6 and 3.5, respectively). They also viewed summary and response as valuable components for practicing synthesis writing. However, they held ambivalent views about the usefulness of the poster observation report and the poster presentation. Even though they did not find these two tasks very useful, the students seemed to enjoy them (with higher mean scores of 3.2 and 3.5, respectively) more than the synthesis writing tasks (2.9 and 2.5, respectively). This may be due to the fact that poster observation report involved informal writing, and poster presentation consisted of visual, written and spoken components rather than formal academic writing. Thus, their informal and multimodal nature likely made these tasks more enjoyable than the academic writing tasks. On the other hand, it is not surprising that the students enjoyed the synthesis papers least due to the difficulty of these tasks, in particular the long synthesis paper, as indicated by the highest mean, 3.0,
compared to that of poster observation report and poster presentation (1.2 and 1.4, respectively).

**Perceptions of the Usefulness of Smaller Writing Tasks and Teacher Individual Support**

<table>
<thead>
<tr>
<th>Smaller Writing Tasks and Teacher Individual Support</th>
<th>Short Synthesis Paper</th>
<th>Long Synthesis Paper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mean</td>
<td>SD</td>
</tr>
<tr>
<td>Topic Proposal</td>
<td>2.30</td>
<td>1.06</td>
</tr>
<tr>
<td>Annotated References</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Outline</td>
<td>3.10</td>
<td>0.88</td>
</tr>
<tr>
<td>Peer Review</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Teacher-student Tutorial</td>
<td>3.60</td>
<td>0.70</td>
</tr>
<tr>
<td>Teacher’s Written Feedback</td>
<td>3.60</td>
<td>0.52</td>
</tr>
</tbody>
</table>

Table 5.2: Perceptions of the Usefulness of Smaller Writing Tasks and Teacher Individual Support

Table 5.2 illustrates similar patterns of students’ perceptions of the smaller writing tasks and teacher individual support during the short and long synthesis composing processes. Because the teacher adopted a process-oriented multi-drafting approach, Table 5.2 reveals that not every single assignment carried the same value in the students’ eyes. They considered teacher-student tutorial and teacher’s written feedback most useful for their synthesis writing. This result highlights the importance of teacher and student interaction in tutorials, which are individualized learning opportunities for the students.
On the other hand, the students found writing outlines of the synthesis papers only moderately useful (mean=3.1). As discussed in Chapter 4 about the teacher’s task representations of synthesizing, outlining played an important role in introducing the organizational structure of a synthesis paper. Thus, it is not surprising that the students found writing outlines more beneficial than the other pre-writing tasks, such as topic proposal and annotated references. Regarding the latter, recall that Ms. Perry added the annotated references to encourage the students to read and think more about their sources before writing the long synthesis paper. However, the survey result shows that the students did not fully comprehend the purpose of annotated references. As for writing the outline, they did not see it as being as useful as the teacher presumably expected when placing so much instructional emphasis on it. This may have been a new and strange looking approach to the students, and it may not have matched their already established composing process.

**Perceptions of the Usefulness of Classroom Activities and Instruction**

<table>
<thead>
<tr>
<th>Activities and Instruction</th>
<th>Mean</th>
<th>SD</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>APA citation tips</td>
<td>3.70</td>
<td>0.48</td>
<td>Mechanics</td>
</tr>
<tr>
<td>Techniques for writing introduction and conclusion</td>
<td>3.40</td>
<td>0.84</td>
<td>Rhetoric</td>
</tr>
<tr>
<td>Reporting verbs</td>
<td>3.40</td>
<td>0.84</td>
<td>Language</td>
</tr>
<tr>
<td>Outlining synthesis paper structure</td>
<td>3.30</td>
<td>1.06</td>
<td>Rhetoric</td>
</tr>
<tr>
<td>Example/model essays</td>
<td>3.10</td>
<td>0.99</td>
<td>Rhetoric</td>
</tr>
<tr>
<td>Transitions and conjunctions</td>
<td>2.90</td>
<td>1.20</td>
<td>Language</td>
</tr>
<tr>
<td>Outline of reading texts</td>
<td>2.80</td>
<td>0.92</td>
<td>Reading</td>
</tr>
<tr>
<td>Quote/Paraphrase/Summary sandwich</td>
<td>2.70</td>
<td>0.95</td>
<td>Language</td>
</tr>
<tr>
<td>Collaborative reading activities</td>
<td>2.10</td>
<td>0.99</td>
<td>Reading</td>
</tr>
</tbody>
</table>

Table 5.3: Perceptions of the Usefulness of Classroom Activities and Instruction
Table 5.3 lists a variety of classroom activities and instruction that are classified into four categories, including mechanics, rhetoric, language and reading. First, the students considered the instruction about APA citation most useful, with the highest mean at 3.7. Although most students had learned the APA style in the first-sequenced course that preceded the 1902 course, citation practices were still relatively new to these L2 students. Ms. Perry’s instruction was rather explicit on this topic, and the students found direct instruction of citation practices useful and easily to follow. Second, the teacher’s instruction for synthesis writing was rhetorical in nature, with some emphases on developing students’ academic language abilities. The majority of students found the rhetorical instruction quite helpful, such as techniques for writing the introduction and conclusion and outlining the synthesis paper structure. However, they considered the use of the example/model essay only moderately useful (i.e., mean of 3.1). This result is interesting and worth exploring because the use of model essays is a common teaching approach in L2 (as well as L1) writing courses, in part because of a seemingly widespread belief that L2 writers place a high degree of value on them as a kind of template for producing their own writing.

Surprisingly, the students did not pay much attention to the reading-related instruction the teacher provided, as shown from the low means for the outline of reading texts and collaborative reading (2.8 and 2.1, respectively). In fact, less than half of the students found the reading instruction useful. This result contradicts to the teacher’s
narrative about the importance of reading instruction. In Chapter 4, Ms. Perry specifically emphasized the relationships between reading and synthesis writing and she tried to make explicit connections between the two by implementing a reading-to-write approach. Nonetheless, the survey results seem to show that the students had not fully understood the importance of reading-writing relationships. It should be noted, though, that the especially mean (2.1) for collaborative reading could have been connected to the collaborative nature of the task and not a direct reflection on reading-related instruction. This collaborative approach might have been new to the students, and it may have been difficult for them to recognize value in reading involving others as opposed to reading on their own, which they were far more accustomed to.

**The Quality of Students’ Synthesis Papers**

Guided by the theoretical model of discourse synthesis (Spivey, 1997; Solé et al., 2013), I analyzed the quality of the students’ synthesis by coding their papers in the following categories: organization, selection of sources, integration of sources, and strategies for source use. In terms of organization, Ms. Perry asked the students to explicitly specify the type of paper they were writing in their outline. So, I used that information to help me code the organizational structure of their synthesis papers. Regarding selection of sources, the students were required to choose their source texts from an academic database. I examined the number of sources and the appropriateness of sources. With regard to integration of sources, I used two important measurements in Solé et al. (2013), intertextual integration (i.e., links between two or more source texts) and intratextual integration (i.e., links within one single source text). In addition, the
students were required to integrate their own examples and observations in the synthesis papers; thus, writer and source text integration was also analyzed (Kucer, 1985; Spivey, 1990). Finally, I examined the strategies employed for source use, including summary, paraphrase and direct quote, since these source-based writing strategies were explicitly taught in the first few weeks of the course.

**Textual Analyses of Students’ Short Synthesis Papers**

In Chapter 4, I discussed the teacher’s understanding of synthesis and her task representation of the short synthesis paper. At the beginning of the semester, Ms. Perry already had a basic working knowledge of synthesis. She was able to highlight the three sub-processes of discourse synthesis—organization, selection and integration. Around the middle of the semester, Ms. Perry presented the short synthesis task as a general research paper and stressed that the students should learn the basic organizational structure of a western style paper of that kind. Her instruction was rhetorical in nature, with a strong emphasis on organization. These points should be kept in mind when looking at Table 5.4
<table>
<thead>
<tr>
<th>Student (N=10)</th>
<th>Organization</th>
<th>Selection of sources</th>
<th>Integration of sources</th>
<th>Strategies of source use</th>
<th>Quality of short synthesis paper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of sources</td>
<td>Appropriateness of</td>
<td>Intertextual links</td>
<td>S</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>sources</td>
<td>Intratextual links</td>
<td>Writer-source links</td>
</tr>
<tr>
<td>Steve</td>
<td>Effect</td>
<td>3</td>
<td>Appropriate</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Jane</td>
<td>Effect</td>
<td>4</td>
<td>Appropriate</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Nora</td>
<td>Effect</td>
<td>2</td>
<td>Appropriate</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Sophia</td>
<td>Problem-Solution</td>
<td>2</td>
<td>Appropriate</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ling</td>
<td>Effect</td>
<td>2</td>
<td>Appropriate</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Claire</td>
<td>Process</td>
<td>4</td>
<td>Appropriate</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ming</td>
<td>Argument</td>
<td>3</td>
<td>Partially appropriate</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Lee</td>
<td>Problem-Solution</td>
<td>4</td>
<td>Partially appropriate</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Han</td>
<td>Process</td>
<td>2</td>
<td>Partially appropriate</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Chen</td>
<td>Effect</td>
<td>2</td>
<td>Problematic</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Note: S stands for summary, P stands for paraphrase, and Q stands for quote.

Table 5.4: Textual Analyses of Short Synthesis Papers Written by the Students
Table 5.4 demonstrates that the students had grasped the basic organizational structure of a synthesis paper. Since the short synthesis only required a minimum of two sources and a minimum of four citations, most students were able to find appropriate sources. However, the extent of source integrations was minimal, as shown from the small numbers for intertextual (either 0 or 1) and intratextual integration (either 0 or 1 except for Steve who made three intratextual links). The numbers for writer-source links (ranging from 1 to 5) indicate that the students were more successful in connecting the sources to their personal experiences and observations. It may be because they already familiar with using personal examples through their previous writing practices, including, perhaps, in their L1 writing. However, very few students established both intertextual and intratextual links in their short synthesis. This may be due to the fact that establishing links within and between sources was more difficult than using personal examples to support their claims. It is also likely that because the students had practiced writing a summary and a response right before the short synthesis task, they were able to directly transfer the skill of responding to texts using personal account to the short synthesis paper. The more successful writers (e.g., Steve, Jane, and Nora) established more intertextual and intratextual links as well as writer-source integrations. They also employed a variety of strategies for source use. In contrast, the less successful writers (e.g., Lee, Han and Chen) formed more links between personal examples and sources, but they simply met the minimum requirement for source use, rather than using a variety of strategies.

Textual Analyses of Students’ Long Synthesis Papers
After teaching the short synthesis, Ms. Perry had developed a more comprehensive understanding of synthesis. As discussed in Chapter 4, she realized that it was not sufficient to simply teach the general organization of a research paper, which often had the drawback of featuring the restrictive five-paragraph essay structure. She stressed the importance of source use and integration of ideas. So she adjusted her instruction for the long synthesis paper, adding annotated references and revising the outline, to account for these challenges. Table 5.5 illustrates the students’ performances in the long synthesis paper.

The comparison of integration and strategies of source use in the long synthesis further distinguishes the strong writers from the average and weaker writers. The strong writers (e.g., Steve, Jane and Nora) formed more intertextual, intratextual and writer-source integrations by bringing together sources and their own ideas. They maintained a balance in terms of using summary, paraphrase and direct quote. The average writers (e.g., Sophia, Ling, Claire and Ming) attempted to use more sources, but most of their sources were stand-alone rather than integrated and thus failed to meet the task requirements. Indeed, the weak writers (e.g., Lee, Han and Chen) did not successfully connect the sources, as illustrated from the limited number of source integrations (either 0 or 1). Since Ms. Perry required citing from a minimum of five academic articles in the long synthesis paper, selection of sources became more challenging for the weak writers. They chose some sources that were inappropriate for their papers. This suggests that these students did not fully understand the role of sources in composing a synthesis, or, from a developmental perspective, they understood what was expected of them but
lacked the cognitive readiness necessary to use the sources in the expected ways. In other words, knowing what to do and being able to do it are separate aspects of writing. With regard to strategies for source use, they tended to heavily rely on copying the source texts. i.e., use of direct quotes, rather than summarizing and paraphrasing, which are more demanding activities.
<table>
<thead>
<tr>
<th>Student (N=10)</th>
<th>Organization</th>
<th>Selection</th>
<th>Integration</th>
<th>Strategies of source use</th>
<th>Quality of long synthesis paper</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of sources</td>
<td>Appropriateness of sources</td>
<td>Intertextual links</td>
<td>Intratextual links</td>
</tr>
<tr>
<td>Steve</td>
<td>Effect</td>
<td>5</td>
<td>Appropriate</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Jane</td>
<td>Effect</td>
<td>6</td>
<td>Appropriate</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Nora</td>
<td>Effect</td>
<td>6</td>
<td>Appropriate</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>Sophia</td>
<td>Effect</td>
<td>5</td>
<td>Appropriate</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Ling</td>
<td>Effect</td>
<td>5</td>
<td>Appropriate</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Claire</td>
<td>Process</td>
<td>5</td>
<td>Partially appropriate</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Ming</td>
<td>Effect</td>
<td>5</td>
<td>Partially appropriate</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Lee</td>
<td>Problem-Solution</td>
<td>6</td>
<td>Partially problematic</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Han</td>
<td>Effect</td>
<td>5</td>
<td>Problematic</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Chen</td>
<td>Comparison</td>
<td>4</td>
<td>Problematic</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Note: S stands for summary, P stands for paraphrase, and Q stands for quote

Table 5.5: Textual Analyses of Long Synthesis Papers Written by the Students
The textual analyses in Tables 5.4 and 5.5 differentiate the quality of student papers. The analyses reveal selection and integration of sources play crucial roles in distinguishing the students’ synthesis writing abilities, or at least their development readiness to apply what they understood about synthesizing. To put these just presented results in more perspective, especially the developmentally-oriented comments I’ve provided, in the following section I explore what may have contributed to the students’ varied abilities in synthesizing. The focus is on the students’ developmental understandings of synthesis and their views regarding sources use.

**The Students’ Task Representations of Synthesis**

In Chapter 4, I delineated Ms. Perry’s task representation of synthesis and her instructional approaches to synthesis writing tasks throughout the course. This information provides a frame of reference for examining the students’ evolving representation of this new and complex literacy task. By investigating how their understanding of synthesis writing changed in the beginning, middle and end of the semester, I examine how this may have contributed to their different writing performance in synthesizing. Furthermore, I select four focal participants for the multiple case studies that follow in Chapter 6 and Chapter 7, based on the quality of their synthesis papers and their understandings of synthesis.

**The First Encounter with the Concept of Synthesis**

In the initial background interviews, all ten participants indicated that they had never heard of nor practiced synthesis writing before. Some students did not even know
the meaning of the word *synthesis*. Thus, synthesis writing was not only a new type of academic literacy for them, but also a brand new concept of literacy for these L2 students. As I began to learn about their previous language learning experiences and native language (i.e., L1) backgrounds, I realized that none of these students had practiced or perhaps even encountered synthesis writing in their L1. So, this new literacy task posed a significant challenge to these students, especially because they could not draw upon, or transfer, relevant prior L1 knowledge and ability. The absence of an already established L1 schema for synthesizing added to the cognitive demands associated with synthesis writing in the 1902 course.

To better understand how the students approached synthesis writing, I tried to explore some previous writing tasks familiar to them, such as the TOEFL integrated writing and independent writing tasks, and SAT essay writing. The majority of the students considered synthesis writing similar to the TOEFL independent writing task (which involved no synthesizing) due to the five-paragraph essay structure. However, very few participants recognized the similarity between the TOEFL integrated writing and synthesis writing. For instance, Steve explained in the background interview, “I feel TOEFL independent writing is somewhat similar to what we are actually doing right now. For example, you will need to use some examples to illustrate your points. I remember in TOEFL independent writing, there should be three examples” (2/6/2014). For those who failed to see the similarity between the two tasks, a possible cause could be the inclusion of the listening component in the TOEFL task, since it was not part of the synthesis writing in the 1902 course. Also, their previous English writing instruction likely took
place in so-called “cram schools” aimed only at test preparation (such as the TOEFL), so the students did not find it helpful for their writing in the American university and perhaps failed to make connections between what they had been taught before and what they were learning in the 1902 course.

Before the students took this course, most of them (except Nora, who was a new transfer student) had taken the first-sequenced writing course (1901), which introduced them to the basic genres of academic writing, such as summary, persuasive and evaluative essays, which were not necessarily related to source text use. I was curious as to whether the students perceived any similarity between these writing tasks and synthesis in the 1902 course. All of them reported that synthesis writing was a fairly new task, and searching for sources in an academic database was brand new to them. However, they were able to identify some components and skills that were similar in the previous writing tasks, such as citation format and overall organizational structure of an essay. They also considered practicing summarizing and paraphrasing in the first-sequenced writing course (1901) as useful activities for learning to synthesize.

At the time when I conducted the background interviews with individual students, Ms. Perry had just began to introduce the short synthesis assignment. She explained that in the short synthesis paper, the students would “take ideas from both places [course reading and academic articles from the database], and your own ideas, put them together to either make an argument, to explain cause or effect, to make a new thing, to give new information” (Classroom field note, 2/5/2014). Interestingly, the students took up her explanation of synthesis quite differently, that is, they formed a different task.
representation than the one she gave them. Some students, who later turned out to be more successful writers, were able to rephrase the teacher’s explanation and transfer the essential skills they had practiced previously, including summarizing, paraphrasing and responding to synthesis writing. For example, when I asked Steve about his understanding of synthesis writing, he said, “It is like what the teacher has told us, to collect information from different sources to compose an essay” (Background interview, 2/6/2014). Another more successful writer, Jane, said:

I think synthesis writing combines all the skills I learned in the previous writing tasks. In the past, the teacher taught us separately how to summarize, persuade, and evaluate in each single assignment. So when I did those assignments, I only dealt with one article or one source; there was no integration. In synthesis writing, I need to connect different articles together and make the connection more logical and beautiful. (Background interview, 2/9/2014)

Compared to the first-sequenced course (1901), in which the students were given the reading materials to work with, this course required them to search for and select sources independently. Thus, the students interpreted synthesis based on the sequence of the writing tasks assigned by Ms. Perry. For example, Ling described her understanding of synthesis as follows: “It is looking for sources and citing the examples in the sources to support your opinion; because we first write our thesis then we look for sources to support our thesis” (Background interview, 2/11/2014). Similarly, Claire said that, “The teacher asks us to look for sources. I guess synthesis paper is just using other authors’ examples, not your own personal examples to write a paper” (Background interview, 2/9/2014).

However, several other students, who were weak writers, only recognized that synthesis is a type of research paper. For instance, Han said, “It is like a discussion or
explanation about a certain topic. It’s like a research report” (Background interview, 2/12/2014). Another student, Chen, was confused about what a synthesis paper looks like and did not quite understand why sources are required in the synthesis task. Furthermore, they did not pay attention to the pre-writing tasks, such as the topic proposal and the outline. Particularly when Ms. Perry asked them to outline topic sentences and the corresponding sources, they simply ignored these steps in their writing process, apparently not seeing any importance in them. These students believed that sources could be added to their synthesis papers at the end.

In the early stage of the course, it seems that the weak students had a fairly simplified understanding of synthesis and did not recognize the purpose of source text use. On the contrary, the stronger writers tried to utilize writing skills and practices that they previously acquired to grasp the new concept of synthesis.

The Representations of the Short Synthesis Task

In the middle of the semester, I conducted the first stimulated-recall interviews with individual students immediately after they finished their short synthesis paper. During the interviews, I asked them to retell their reading and writing processes in detail. They recalled the decisions they had made with regard to organization, selection and integration of sources as well as strategies for source use. They also discussed how they developed their understanding of synthesis in the composing processes. Quite interestingly, the students displayed varied representations of the short synthesis task, even though they received the same instructions from Ms. Perry. Hence, there was once a gap between the teacher and student task representations, though there was some
variation among the strong and weak writers in this regard.

The strong writers recognized the central role of sources in composing a synthesis and gradually developed their understanding of source-based writing in contrast to opinion-based writing. Although they had not been able to synthesize sources well, as indicated from the small number of intertextual and intratextual links shown in Table 5.4, they had already demonstrated their development in understanding the concept of synthesis. For example, after completing the short synthesis, Steve defined it as “having an opinion about a certain topic and using various sources to support that opinion” (Mid-course stimulated-recalled interview, 3/11/2014).

Another strong writer, Jane, made a clear distinction between opinion-based writing and source-based writing. She said, “Synthesis writing is not just your own ideas. It is a combination of your ideas and the source ideas” (Mid-course stimulated-recalled interview, 3/24/2014). In class, Ms. Perry emphasized the importance of organizational structure and citation practices. Jane not only fully understood the teacher’s instructional focus; she further indicated that, “I think citation is important but it is even more important that you thoroughly understand the source authors’ ideas and skillfully integrate them with your own ideas” (Mid-course stimulated-recalled interview, 3/24/2014). In other words, Jane put idea integration at the heart of synthesis writing.

In comparison to the strong writers, the average writers also developed their awareness of source use in synthesis writing. Ling described synthesis as “selecting the examples from the sources and combining those examples with your personal examples to illustrate your opinions” (Mid-course stimulated-recalled interview, 3/23/2014). In a
similar vein, Claire viewed synthesizing as “putting a lot of sources together, commenting on or explaining those sources, and adding your own opinions” (Mid-course stimulated-recalled interview, 3/24/2014). However, not surprisingly, they admitted that selecting appropriate sources was difficult for them.

In contrast, the weak writers did not move beyond their comfort zone of composing opinion-based essays. One of the weaker writers, Chen, said, “In my opinion, in order to persuade someone or to state your opinion, you write a paper. Such a paper is called synthesis paper” (Mid-course stimulated-recalled interview, 3/13/2014). Another student, Han, pointed out that synthesis writing was more research-oriented, but his explanation of synthesis was quite vague. The weak writers only considered citing sources part of the assignment requirement, rather than an integral component of synthesis writing.

By the time I finished the mid-course stimulated recall interviews, the students had received ten weeks of classroom instruction from Ms. Perry. The variations in their understanding of synthesis partly explain why the students performed differently in the short synthesis task, as shown in Table 5.4. The more successful writers recognized the crucial role of source use in synthesis writing. In contrast, the weak writers viewed sources as an auxiliary component, which could be added in the end.

**The Representations of the Long Synthesis Task**

During the final stage of the course, the students continued working on the long synthesis paper, which is about a different topic from the short synthesis paper and required five sources. However, this instructional unit was shorter than the short synthesis
unit due to time constraints in the semester. In the post-course stimulated-recall interviews, I tried to unravel the students’ experiences in composing the long synthesis in comparison to the short synthesis.

The strong writers further developed their source-based writing skills. They became more confident working with sources, and their understanding of synthesis deepened at the end of the course. Surprisingly, when I asked whether she found working with five sources in the long synthesis more difficult than fewer sources in the short synthesis, Jane thought it was easier because she could establish more connections among sources together with her own examples. Jane’s comment corroborates the textual analyses of long synthesis in Table 5.5. The strong writers (e.g., Steve, Jane and Nora) established considerably more intertextual, intratextual and writer-source integrations and employed diverse strategies for source use. These students also developed a fuller representation of the long synthesis task. For example, Steve summarized that, “Synthesizing is like putting together different sources and relating one another to support the discussion about the topic” (Post-course stimulated-recall interview, 4/20/2014). Jane successfully defined synthesis writing as “combining the results and conclusions from research articles and your personal experiences to come up with your own understanding about your topic” (Post-course stimulated-recall interview, 4/29/2014).

The average writers also developed their representation of synthesis task, but they thought the long synthesis was more difficult because they did not feel comfortable working with many sources. Claire found selecting sources from the database rather
difficult. It was challenging for her to read those complex academic articles. Ling also reported her struggles in forming her own opinions based on source information. In fact, their difficulties in composing the long synthesis were often reading problems. In order to cope with the reading demand, these writers needed to develop strategic reading skills to better interact with the lengthy and complex sources.

In contrast, the weaker writers’ task representation of synthesis was still limited to opinion-based writing. Chen still believed that synthesis is “a paper about my view and my personal opinion” (Post-course stimulated-recall interview, 4/20/2014). After completing the long synthesis, Han had recognized the importance of sources in supporting the argument in his paper, but he admitted that, “It is quite difficult to look for good sources on the Internet. There are vast amount of articles in the database and it is hard to choose” (Post-course stimulated-recall interview, 4/25/2014). So the challenges of composing a synthesis for the weak writers were not only writing-related, but also closely linked to their reading as well as their task representation. Another common problem the weak writers encountered was citing the sources out of context. They often picked up the quotes or sentences randomly without carefully reading the source texts. By treating the sources in such a way, they could meet the teacher’s requirement in terms of having the specified number of citations, but did not thoroughly understand the real purpose of source use.

Summary

This chapter moves the analytical focus from Ms. Perry’s teaching to the students’ learning of synthesis. The end-of-the-semester survey results demonstrated the students’
overall perceptions of the writing tasks in the course and their reactions to Ms. Perry’s classroom instruction. The students recognized the usefulness of learning to write a synthesis in developing their academic writing ability in English. They found Ms. Perry’s explicit instruction on organization and citation practices helpful. Although they considered model essays moderately useful, most of the students did not fully comprehend the reading and writing relationships. In addition to the classroom instruction, the students reported that teacher-student tutorials and Ms. Perry’s feedback were most useful in composing a synthesis.

The second part of this chapter examined the quality of students’ synthesis papers. The textual analyses illustrated that the more successful writers were able to select appropriate sources and establish more intertextual, intratextual and writer-source links in their papers. The less successful writers had difficulty in both selection and integration of sources. They included more personal examples to support their arguments and used more direct quotations, rather than summary and paraphrases.

The final part of this chapter investigated the students’ evolving representation of synthesis tasks and demonstrated that the variations of their task representations contributed to their different performances in the synthesis writing tasks. The strong and weak writers interpreted and interacted with sources in different ways: the more successful writers developed a comprehensive understanding about source use in synthesis writing. The strong writers considered sources as fundamental elements to support their claims. On the other hand, the less successful writers viewed sources as auxiliary component to their papers. For the weak writers, using sources simply meant
properly citing the sources and meeting the assignment requirement in terms of number of sources cited.

Drawing from the analyses in this chapter, I selected what I considered the four most compelling cases—two strong and two weak writers—to investigate their learning trajectories of synthesis writing throughout the course. I decide to focus on Chinese students because of the large student population in American universities and my familiarity with the language and culture. In the following two chapters, I create individual portraits of the two strong writers–Jane and Steve (Chapter 6) and two weak writers–Han and Chen (Chapter 7) and explore the individual and contextual factors that influenced their diverse learning experiences with synthesis writing, such as their approaches to reading-to-write processes, their tutorial interactions with the teacher, and their intercultural and rhetorical knowledge about writing.
Chapter 6

Case Studies of Two Strong Writers’ Developments in Synthesis Writing

Introduction

After providing a general picture of the students’ perceptions of and overall performances in synthesis writing in Chapter 5, Chapter 6 and Chapter 7 illustrate the students’ diverse learning experiences with synthesis writing focusing on the stories of four focal participants—two strong writers (Jane and Steve) and two weak writers (Han and Chen), respectively. Both chapters are devoted to describing the participants’ developmental trajectories in learning to write synthesis papers throughout the course and to examine the similarities and differences of their learning experiences with synthesis writing. The data that I draw from include: the background interviews, two stimulated-recall interviews, the teacher’s written feedback, and the tutorials between the individual students and the teacher.

Chapter 6 delineates the stories of two strong writers—Jane and Steve. First, I provide narrative accounts of the two students’ experiences with synthesis writing from a developmental perspective separately. After analyzing the individual cases, I compare the two students’ learning experiences, with a focus on the positive features of their synthesis writing, that is, what made them strong writers in this respect. The comparative analyses
highlight four characteristics: 1) the students’ task representations of synthesis, 2) their source use in synthesis writing, 3) their approaches to the reading and writing activities related to synthesis writing, and 4) the strategies they employed to appropriate the new literacy task of synthesizing.

This chapter starts with an active reader and writer, Jane, a female transfer student who actively constructed her understanding of synthesis writing using previously acquired literacy skills and practices. Jane intuitively believed that reading and writing are closely connected. Her story reveals a strategic reader’s successful learning experience with source-based writing and her engagement in negotiating her understanding of source use with the teacher. Next, I introduce another successful reader and writer, Steve, who employed both rhetorical reading and writing in learning to write from sources through synthesizing. His story demonstrates a freshman’s intrinsic motivation to learn English academic writing and his epistemic understanding of source-based writing for his academic success as a university student. Finally, I analyze the characteristics of successful synthesis writing of the two strong writers and discuss their shared and varied strategies and approaches to grasping the new and complex literacy task that synthesizing represented for them.
Jane: “Synthesis is summary plus critical thinking and writing.”

The Initial Encounter with Source-based Writing

Jane was a transfer student who majored in Information Management and had previously studied in a regional Chinese university for two years. She had always wanted to study abroad and began to prepare her application to American universities in the first year of her college study in China. In order to prepare for the Test of English as a Foreign Language (TOEFL) test, she attended a “cram school” to improve her English language ability. Although the private tutoring in the cram school was helpful for her in terms of receiving a successful score on the TOEFL, the writing instruction she received was very structured and formulaic.

When I first met her, she had studied in the United States for six months. From the very beginning of this study, Jane seemed to hold an intuitive understanding of the connections between reading and writing. She viewed reading as a main source to gather examples for TOEFL writing tasks. After she came to the American university that was the site for this study, she found reading a lot very useful to improve her English. In her first semester, she took two courses (German culture and Geology) that required a large amount of reading. Jane reported that, “When I came across long and complex sentences, I just read them again and again until I finally understood what they mean” (Background interview, 2/9/2014).

Around the time I started the classroom observations in the 1902 course, I noticed Jane because she was very articulate in class compared to the other Chinese international students. It happened that Jane also took the first-sequenced ESL composition course
(1901) with Ms. Perry, her 1902 instructor, the semester prior to this study. Ms. Perry considered her a strong writer and good student. During the first five weeks of the 1902 course, I became acquainted with the students, including Jane, and got to know about their previous literacy experiences through background interviews and casual conversations with them before and after class. I was particularly interested in their developmental understanding of synthesis. When I asked Jane whether she had encountered synthesis writing before and how she defined synthesis, unlike most of the students who said no and gave me brief answers, Jane quickly associated this literacy task with something similar in her previous writing course. What was especially interesting was that the background interview (2/9/2014) revealed that Jane viewed critical thinking as a crucial component of synthesis writing.

Ruilan: Have you heard of synthesis writing before?
Jane: In the past, I think it was often called critical writing. From last semester, I had learned more about critical thinking. I think it is very similar in nature. Critical writing is like you received a lot of information and then you filter the information, think about the information, and use your own experience to support your own ideas. The key component is critical thinking. The only difference is with synthesis writing, you have to choose the information and filter that information.

Ruilan: What do you mean by critical?
Jane: Because every problem has several aspects. For example, what opinions does the author raise in the essay? What do you think about these opinions? Why do you think so? Do you have examples to support your thoughts?

During the time when I conducted the first interviews, Ms. Perry assigned the summary and response task, in which the students combined a summary with a response as a means of exploring the source text they were working with. In this initial learning stage, Jane considered synthesis similar to summary and response. In her opinion, “Summary is the
restatement of the useful source information and response is your thoughts about the source information. The only difference is that summary and response is based upon one article, whereas synthesis paper is build upon more articles” (Background interview, 2/9/2014). In fact, Jane considered the summary and response task “very useful” in the end-of-semester survey, as she saw it as providing an opportunity not only to practice the fundamental source-based writing skills, such as summarizing and paraphrasing, but also to form connections between the source text and her personal examples.

In addition, Jane rated her motivation level to study English academic writing as “high.” She believed that it is useful to learn synthesis writing for other general education courses; as she explained, “it is very important to learn the citation and reference, especially for Chinese students. Because if you don’t cite the source properly, it is cheating or plagiarism which is very serious” (Background interview, 2/9/2014).

**Learning to Write a Short Synthesis Paper**

In the pre-writing stage of her short synthesis paper, Jane struggled to find a suitable topic for her paper. She eventually decided to write about “Addiction to phones,” which was the same topic for her summary and response task. In addition to the source text used in her summary and response assignment, she selected three additional articles from the academic database introduced in the 1902 course. Since Ms. Perry employed a process-oriented approach to the short synthesis paper, and Jane followed the teacher’s multi-drafting instructions that were an important part of the process approach. The following figures, 6.1 and 6.2, illustrate how Jane developed her knowledge about source use in the first and final drafts of the short synthesis paper.
Figure 6.1: Excerpt from Jane’s First Draft of the Short Synthesis

There is a research launched at Sakarya University. Five hundred and seventy six students at average 20 years old are investigated and the research found that the average age of owning first mobile phone is 13 and below and the daily usage of phone hour is above 5 hours now. (2013, pg 913)

Figure 6.1 demonstrates that when writing the first draft of the short synthesis, Jane still struggled with skillfully summarizing the source text. Recall that these Chinese students had very limited prior knowledge about English writing before their college studies, and no real experience with source-based writing, including summarizing and synthesizing. Thus, it is not surprising to see that Jane was still in the process of acquiring summarizing skills and citation practices. In between the first and final drafts of the short synthesis paper, Ms. Perry provided, in their tutorial, specific instructions to Jane on how to work with sources, as presented in the transcript below.

Transcript of Jane’s short synthesis paper tutorial (3/4/2014)

Ms. Perry: “There is research at Sakarya University” or “There is a research project at Sakarya University.” So project is countable and research is uncountable. You should take away a.
Jane: OK.
Ms. Perry: So here [pointing to the next sentence] is a brief summary of the entire research.
Jane: Um-hum.
Ms. Perry: Here is what I would do if I were you. The year [pointing at 2013] should go beside the research. You don’t need the page number since you are summarizing the whole research.
Jane: So only the year?
Ms. Perry: Right, the year goes beside the university. If you have the names of the people who did the research, you can include here. So “There is research at Sakarya University by …” Put the names of the people and then put the year. And to show that you are still talking about the same research, “the results of the research show …”

Jane: OK, so I can connect it to the next sentence together.

Ms. Perry: Yeah.

The above tutorial interaction sheds light on the revisions that Jane made in the final draft of the short synthesis, as illustrated in Figure 6.2. First, Jane included the names of the authors at the beginning of the summary and moved the year of publication from the end to instead appear after the names of the authors. She also removed the page number according to Ms. Perry’s suggestion. Second, she used appropriate reporting verbs, e.g., conduct the research, and conclude that, when she revised the summary. The comparison of the revisions between the first and final drafts, in tandem with the conversations surrounding the texts, further indicated that Jane was still in the process of learning to use sources, in particular documenting sources using appropriate citation formats.

Sahin, Ozdemir, Unsal and Temiz (2013) conduct the research on five hundred and seventy six students at average age of 20-year-old at Sakarya University and conclude that the average age of owning first mobile phone is 13 and below and the daily usage of phone hour is above 5 hours now. The sleep quality worsens with the increasing addiction level to phone. Due to the fact that millions of games and interesting application available on phone, people may spend more time on phone than before. Take myself as an example; I have habit that checking news every day before I go to bed ……

Figure 6.2: Excerpt from Jane’s Final Draft of the Short Synthesis
To further understand Jane’s performance of source use in the synthesis writing tasks, both her short synthesis and long synthesis papers were analyzed according to the discourse synthesis model—organization, selection, and integration (Spivey, 1990, 1997; Solé et al., 2013). Table 6.1 shows that when composing the short synthesis, Jane established more writer-source integrations than intertextual and intratextual integrations. This result is not surprising because, as discussed in Chapter 5, the students were more familiar with using personal examples from their previous writing practices. In fact, establishing links within and between sources was more difficult than using personal examples to support their claims. In the case of Jane, who drew a strong connection between the summary and response task and the short synthesis paper, it is very likely that she explicitly transferred the summarizing and responding skills she had acquired to establish writer-source integrations in the short synthesis paper.

<table>
<thead>
<tr>
<th></th>
<th>Short synthesis</th>
<th>Long synthesis</th>
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<tbody>
<tr>
<td><strong>Organization</strong></td>
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<tr>
<td>Selection of sources</td>
<td></td>
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<tr>
<td>Number of sources</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>Appropriateness</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td>Integration of sources</td>
<td>Number of intertextual integration</td>
<td>1</td>
</tr>
<tr>
<td>Number of intratextual integration</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Number of writer-source integration</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Strategies of source use</td>
<td></td>
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</tr>
<tr>
<td>Summary</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Paraphrase</td>
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<td>Quote</td>
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Table 6.1: Textual Analyses of Jane’s Short and Long Synthesis Papers
Furthermore, the mid-semester stimulated-recall interview explained Jane’s developmental understanding of synthesis and source use. After Jane finished the short synthesis, which was her very “first time to write synthesis paper,” I asked how she understood and defined synthesis writing. Jane replied:

“Synthesis writing is not just your own ideas. It is a combination of your ideas and the source ideas. In class, the teacher often emphasizes citation. I think citation is important but it is even more important that whether you thoroughly understand the source authors’ ideas and skillfully integrated them with your own ideas. So I think in synthesis writing, ideas are the most important part; the organization is not that important. So I would say that to put together source authors’ ideas and your ideas is the key of synthesis writing” (Mid-course stimulated-recall interview, 3/24/2014).

Jane’s definition of synthesis writing explained why she focused on establishing writer and source integrations in the short synthesis paper; as she indicated, “to put together source authors’ ideas and your ideas is the key of synthesis writing.” An example of the writer-source integration was shown in Figure 6.2, in which Jane first summarized the research in the source, and then quickly connected it to her example by saying “take myself as an example.”

Jane’s explanation also revealed that she already grasped one salient feature of synthesis, organization, but struggled with selection and integration of sources. Thus far, although her understanding of synthesis was not fully aligned with the model of discourse synthesis being used in this study, Jane began to realize the importance of source use, not only at the mechanical level of citation practices, but also at the epistemic level. In her words, “it is even more important that whether you thoroughly understand the source
authors’ ideas and skillfully integrated them with your own ideas” (Mid-course stimulated-recall interview, 3/24/2014). However, as L2 writing research has shown, acquiring the complex knowledge about source use is indeed a challenging task for L2 students, who encounter a dramatically different textual world when reading and writing academically in English. When I asked what was difficult for her when composing the short synthesis, not surprisingly, Jane said:

I don’t know how to filter the source information. And I’m not very good at finding the right sources because this is my first time to write a synthesis paper. I didn’t integrate the sources with my own opinion well. So it is a bit difficult to write the paper, for example, which parts of the sources to choose and where is the appropriate place to put the sources. (Mid-course stimulated-recall interview, 3/24/2014)

In sum, after practicing the short synthesis paper, Jane, a relatively strong writer, seemed to develop a partial understanding of synthesis, in which she grasped the organization of a synthesis paper but found selecting appropriate sources and integrating sources especially challenging in her learning experience. More importantly, Jane began to notice the crucial role of source use in synthesis writing. For her at this stage, learning to write from sources was not limited to acquiring citation practices; rather, the appropriate selection and skillful integration of source texts are at the heart of synthesis writing.

**Learning to Write a Long Synthesis Paper**

Toward the end of the course, the students worked on a long synthesis paper, which required including at least five source texts, as compared to a minimum of two sources in the short synthesis assignment. Thus, the long synthesis paper became more challenging for the students. Chapter 4 indicated that Ms. Perry, though taking a similar process-oriented approach, changed part of her instructions according to the students’
performance in the short synthesis task. In particular, she added a pre-writing activity—annotated references—and revised the outline component to emphasize the role of sources and integration of source ideas.

During the pre-writing stage of the long synthesis paper, the analyses of Jane’s annotated references and outline worksheets revealed that she carefully read the source texts and considered the role of sources in her long synthesis paper. To further understand her reading-to-write processes, I elicited her reading activities related to synthesis writing at the beginning of the stimulated-recall interview, demonstrated in the following excerpt (4/29/2014):

Ruilan: How did you get started? What was the first thing you do?
Jane: First, I looked for sources and read the sources to know what the articles talk about. Academic articles usually include abstract, other research, method, finding and discussion. I mainly focused on abstract and discussion. I think this time when I read the sources, I knew which parts of the sources might be useful and I would mark those sections. Last time when I wrote the short synthesis, I looked for the sources while I was writing my paper. But this time, I already read the sources and marked the parts that I wanted to use in my long synthesis paper. I read the source pretty quickly. I skipped the parts that were difficult for me to understand; for the parts that I understood well and I knew how to use them skillfully in my paper, I would highlight them in yellow.

Ruilan: What did you do next?
Jane: Next, I continued reading the sources for the second time because I couldn’t read everything for the first time and I only got the general ideas. For the second read, I found there was a lot of information to discuss. I could either follow the authors’ writing purposes or come up my own explanation based on the authors’ discussions. For example, when I wrote my first point, I first talked about the general effect of stress; next I added other variables to see the change of results.

In comparison to the short synthesis task, it seemed that Jane engaged deeply in the reading-to-write processes of the long synthesis paper. As she reported, she read the source texts strategically, with a clear purpose in terms of looking for relevant and useful
information to use in her synthesis paper. She was able to identify the general discourse features of academic articles, such as abstract, review of research, method, findings and discussion. After skimming the texts and getting the gist of the articles from the abstract, Jane closely examined the discussion section in order to transform the source texts and construct meanings in her own paper. As Jane further explained, “When I began to write, I already selected my sources, read them and decided how to use the sources in certain paragraphs in my paper. So my thought was very clear” (4/29/2014). At the end of the stimulated-recall interview, Jane compared her learning experiences of the short and long synthesis papers. She indicated that:

I feel I did a pretty good job in writing the long synthesis paper. I think I’m better at using sources. Before, when I read the source article, I don’t know which part of the source to use and where to put the source. Now I have a better idea where and how to use the sources in my paper. Even though I may revise my initial plan during the outlining and the first draft, I feel I understand the role of sources better so I can use them more smoothly in my paper. (Post-course stimulated-recall interview, 4/29/2014)

Not only did Jane read the source texts strategically and better understand the reading-to-write processes involved in synthesizing, but she also developed her understanding of source use, both in terms of source selection and integration. Based on the textual analysis of her final written product of the long synthesis, as Table 6.1 shows, Jane established a variety of textual links within and among sources, including intertextual, intratextual and writer-source integrations. Compared to her short synthesis paper, Jane was more successful in dealing with the complex intertextual dynamics.

Furthermore, the following excerpt from Jane’s long synthesis paper (Figure 6.3) and the transcript of her tutorial with Ms. Perry (4/24/2014) demonstrate that Jane moved
beyond simply citing the sources properly to actively interacting with the sources. The
topic of her long synthesis paper was “the influence of stress on psychology and physical
health.” Before the text presented in Figure 6.3, Jane summarized the main finding of the
previous research on “social stress” and indicated that Hammen’s study fulfilled the
research gap (for a larger context of this excerpt, see the first column of Table 6.2). Next,
she discussed other variables, such as “gender and personality,” and how these variables
influenced people’s stress levels. Jane continued to talk about another key factor—length
of time—on the pressure level. Essentially, what Jane did in this excerpt was establish
intratextual links. Moreover, her interactions with Ms. Perry during the tutorial revealed
that she continued acquiring understanding of citation practices, and more importantly,
learning to skillfully work with sources.

As the research continues, Hammen (1998) takes other variables into consideration, for example gender and personality. In the paper, Hammen (1998) he found that women were susceptible compared with men because they were naturally sentimental and when got pressures from outside world, they would have intensive reactions as men did. He also found that a person with high sociotropic values, with higher social power and impact or be outstanding in some fields, would less likely to be affected by the stress and depressive reactions. This is because their personalities are strong, which they hold more confidence than others, and they can bear more burdens than normal people. Other than the internal factors, the length of time that people feel stressful is another key point. Hammen explained continues to talk about the experiment that is based on 1755 respondents who underwent for more than 12 months’ stress; there is a stronger prediction of depression than acute pressures.

Figure 6.3: Excerpt from Jane’s First Draft of the Long Synthesis and Revision
Transcript of Jane’s long synthesis paper tutorial (4/24/2014)

Ms. Perry: What you do here is you introduce the author again, you continue talking about the same person.

Jane: So “he found.”

Ms. Perry: Yes, because this is the direct next sentence and we know you are still talking about the same guy.

Jane: Ok, how about the year?

Ms. Perry: You don’t need to say it again because it is the very next sentence. If you had a sentence, which talked about a different researcher, then you would have to have everything again in order not to confuse the readers. As long as you are talking about the same guy in the same paragraph, you are OK until you insert a second research.

Jane: OK.

Ms. Perry: “It also found that?”

Jane: “He also found that.” I just want to write maybe like the research. Can I just use it to replace the research?

Ms. Perry: Yes, you can.

Jane: So how to change it?

Ms. Perry: Well, anytime you want to use a pronoun, he/she/it, you should have already referred to that specific noun. You can’t use it before you say the study or the research. So the first time, you have to say the study or the research. Then you say it also shows that. But be careful with your verbs because the research cannot find things, but the research can show things, if that makes any sense.

Jane: Show and find, are they different?

Ms. Perry: Yeah. So the person who does the research, the researcher is the one who finds it, find is like discover; a thing cannot discover something, only a human can discover or find something.

Jane: OK, if I change “it” to “he”, I can say “he found?”

Ms. Perry: Right. If you want to say the research, the research is like data, so it shows you.

Jane: OK.

Ms. Perry: Another thing you could do, since you are talking about the same researcher, you can show that he is progressing his ideas. For example, Hammen continues by explaining … or he also talks about … You can add words like he also, he continues, furthermore he discusses, another thing he mentions, things like that.

Jane: OK, like this kind of sentence, it further studies...

Ms. Perry: Yeah, he is not just talking about gender; he is also talking about time.
At the end of this tutorial, Jane asked Ms. Perry twice, “So for this paper, what I need to change are some grammar problems and citations. Do you think I need to change the content?” Ms. Perry was very confident about her paper and provided some suggestions.

Compared to the tutorial for the short synthesis paper, Jane paid more attention to the content of her paper (e.g., idea development and source use), rather than language and mechanical issues.

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**Excerpt of Jane’s long synthesis paper**

1 First thing to talk about is psychological influence. Social stress raise depressive feeling after living under pressures for long period time. In “Stress and Depression”, Constance Hammen (1998) concludes that “there is a generally linear association between severity and number of negative events and probability of depression onset” (p.297). In other words, research has verified that under the case that other variables remain the same, there are some relation between social stress and the pressure levels, and with period of time increase, the possibility of depressive feeling turning up increase.

2 Take myself as an example. Last semester before the final week, I did badly on exam of microeconomics. When I thought about the exam, I could feel my heart jumped faster and negative feeling came along that lead to terrible consequence that I could not review the other exam as planned. The depressive mood went along with me for the whole final week. Many people think that the depressive feeling will disappear as time pass, which is really wrong because the bad feeling hide in somewhere of our heart if we do not release the depressive emotion. Someday it will become more serious psychological problems.

**Comments on her synthesis paper**

1 This is my topic sentence.

2 This is a quote. Because it is more of a conclusive sentence, it is difficult to paraphrase this sentence. So I just use a quote.

3 Here I explain the quote to help readers better understand the quote. Because in this source, the author summarizes many other research and comments on these research. He indicates that his research is built upon the previous research and how his research fulfills the research gap. In fact, my explanation makes it easier for the readers to understand the source because the author writes in a very succinct manner.

4 Next I use my example to illustrate that what happen to me in real life. Because the quote and my above explanation are very abstract, the readers might not fully understand what it means. So I want to use real life example to illustrate the conclusion of that research. So only using the source is not concrete enough, instead using a personal example is more concrete.

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Table 6.2: Illustration of Jane’s Stimulated-recall Interview about her Long Synthesis (Continued)
Table 6.2: Illustration of Jane’s Stimulated-recall Interview about her Long Synthesis (Continued)

5 As the research continues, Hammen (1998) takes other variables into consideration, for example gender and personality. 5 In the paper, he found that women were susceptible compared with men because they were naturally sentimental and when got pressures from outside world, they would have intensive reactions as men did. 6 He also found that a person with high sociotropic values, with higher social power and impact or being outstanding in some fields, would less likely to be affected by the stress and depressive reactions. 8 This is because their personalities are strong, which they hold more confidence than others, and they can bear more burdens than normal people. 9 Other than the internal factors, the length of time that people feel stressful is another key point. 10 Hammen continues to talk about the experiment that is based on 1755 respondents who underwent for more than 12 months’ stress, there is a stronger prediction of depression than acute pressures. What is more serious is that chronic stress is hard to be found and exacerbate the effect on depression. Chronic stress is really a big general problem in today’s society and people should be careful to deal with this kind of stress. 11 In “Work Stress and Depressive Symptoms in Older Employees”, Thorsten Lunau (2013) selected thousands of people in thirteen countries to find the whether stress is associated to the depressive symptoms or depression is one big reason for early retirement. Among the investigators, majority of them were younger than sixty and the researchers found that the depressive symptoms appear higher in both women and young people. Besides, those who hold lower social and economic positions or work time longer than normal people but low pay back prone to suffer from depression. 12 The data found really help to explain the truth that depressive level increase by gender and different personality. 13 Accordingly, stress generates depression and people who are female or experience effort-reward imbalance or low control at work, are especially vulnerable to depressive emotion.

5 In the above I talked about the relationship between social stress and pressure level when other variables remain the same. Next, the author added two other variables gender and personality.
6 In this paper, the author compares the stress level between women and men. So I thought about why women have high level of stress than men, then I come up with the reason that women might be more sentimental.
7 Here the author explains another factor—social power.
8 This is my explanation.
9 Before, the author summarizes the results of previous research. Next he reports his own research.
10 This author finds out that chronic stress is even a severe problem for people in the current society. This is a very important finding for my paper because one point I want to make in my paper is that stress increases throughout time and chronic stress is even worse than what people think.
11 This source specifically talks about stress in workplace. And this author investigates more participants so I think the result may be more convincing.
12 This source complements the other source and proves that the previous research conclusion is correct. I add this sentence in my final draft to show the relationship between the first and second sources.
13 This is a conclusion of this paragraph.

6 Superscript numbers marks individual units of analysis.
To demonstrate Jane’s synthesis composing processes, Table 6.2 illustrates a representative proportion of her long synthesis paper in the first column. The second column shows her retrospective comments about the rhetorical moves that she made during her writing process. First, Jane clearly articulated her strategies and decisions during the stimulated-recall interview. From her elaborated comments, all three types of source integrations were observed, for example, writer-source integration (units 2 and 4), intratextual integration (units 6, 7 and 10), and intertextual integration (units 10, 11 and 12). Second, Jane not only employed the appropriate strategies for source use, but also clearly explained why she quoted or summarized or paraphrased certain parts of the source texts. For instance, she quoted the concluding sentence (in unit 2), and summarized the main findings (in units 6, 7 & 10).

Jane elaborated the key rhetorical moves, such as making a claim (unit 1), framing the quote and citing the sources (unit 2), extending the source (units 3, 8), illustrating using writer’s example (unit 4), summarizing the source (units 5, 6, 7, 10 & 11), and connecting different sources (unit 12). Furthermore, Jane carefully considered the rhetorical context (e.g., “Before, the author summarizes the results of previous research. Next he reports his own research” in unit 9), audience expectations (e.g., “I explain the quote to help readers better understand the quote” in unit 3), and writing purpose (e.g., “This is a very important finding for my paper because one point I want to make in my paper is that stress increases throughout time and chronic stress is even worse than what people think” in unit 10). Thus, the analyses of the written product in Table 6.1 and the composing processes in Table 6.2 revealed that Jane developed a fuller
understanding of source use in the long synthesis task, a task representation that was better aligned with Spivey’s (1990, 1997) constructive model of discourse synthesis. It might also be the case that she was learning how to transfer knowledge of synthesis writing obtained while working on her short synthesis paper. She may have recognized core similarities in the two tasks as she worked on the long synthesis paper and so saw opportunities for transfer of previously acquired knowledge and skill regarding source text use and synthesizing.

To provide a summative account of Jane’s final understanding of synthesis writing, at the end of the course, I asked Jane what her understanding of synthesis was and how it had changed since her first encounter with synthesis writing. Jane responded as follows:

In the past, I think synthesis writing is first using the source ideas and then adding my own opinions. Now, my understanding is still similar to what I just described but my understanding about sources has improved… Synthesis writing is combining the results and conclusions from academic research and your personal experiences to come up with your own understanding about your topic… So synthesis writing is not only about my opinion; the research I cite actually approve that my opinions are right. The research also adds to my understanding about the topic, which makes me think more deeply about my topic (Post-course stimulated-recall interview, 4/29/2014).

To sum up, at the end of the course, Jane developed a comprehensive understanding of synthesis, that is, a strong task representation for synthesizing. She viewed synthesis writing as the careful selection, organization and skillful integration of multiple source texts. To borrow the work of Bereiter and Scardamalia (1987), who distinguished between “knowledge telling” and “knowledge transforming,” Jane not only displayed her knowledge about the sources (i.e., knowledge telling), but also synthesized the sources to
construct new meanings beyond the source texts (i.e., knowledge transforming). This shift from knowledge telling to knowledge transforming is notable in part because it took place within a relatively short period of time—just several weeks from the writing of the short synthesis paper to the long synthesis paper. An important factor here may have been a common distinction in the transfer literature between “near” transfer (where tasks are similar) and “far” transfer (where there are differences in tasks). Transfer research has consistently shown that students are more successful at near transfer than far transfer because the distance between the old and new task is minimal in the case of near transfer (James, 2009, 2010a). The 1902 course provided a promising near transfer environment because both the short and long paper assignments involved the same core activity: synthesizing. Thus, Jane may have taken advantage of that near transfer environment.

**Summary of Jane’s Development in Synthesis Writing**

Overall, Jane’s story delineated a successful reader and writer’s learning experience with a relatively new academic literacy task—synthesis writing. Jane, an intuitive believer of reading-writing connections and a strategic reader and writer, demonstrated her developmental understanding of synthesis and source use throughout the 1902 course. She quickly grasped the fundamental organizational structure in her short synthesis paper, and continued developing her skills of selecting and integrating sources in the long synthesis task. She moved beyond learning the mechanical aspect of source use (e.g., citation practices) to acquiring the epistemic knowledge of source use (e.g., proper selection and skillful integration of source ideas).

Beyond her thorough understanding of synthesis and source use, Jane
purposefully built her rhetorical knowledge of synthesizing through connecting to her previously acquired source-based writing skills, such as summarizing, paraphrasing and responding. She also reasonably understood the reading-to-write processes, and strategically coped with the reading demands in synthesis writing. Her successful learning experience was largely due to her thorough understanding of the synergistic relationships between reading the source texts (knowledge telling) and constructing new meanings out of the source texts in writing (knowledge transforming), that is, her evolving task representation, and perhaps to an ability to transfer her knowledge and skills from one task to another due to the close proximity of the two tasks in terms of elapsed time (just several weeks between them) and the overlapping task demands of the two papers, that is, source text use through synthesizing.
Steve: “Synthesis is like a hotpot with different ingredients.”

The Initial Encounter with Source-based Writing

Steve was a freshman from China with a double major in Mathematics and Business, who had studied in the American university for five months at the time I met him. He was pretty shy and usually sat in a corner in the back row of the classroom. But soon I noticed that Steve always came to class on time and was well prepared. Through my casual conversations and the background interview with him, I learned that Steve was a high-achieving student in his major subjects. During his last year of high school back in China, he had studied for the TOEFL and SAT tests, and passed the Advanced Placement (AP) exams in Calculus, Micro and Macro Economics, and Chemistry. However, he decided not to study the AP writing course because he was not familiar with the content and expectations associated with the course. Steve reported that he had received very minimal instruction on English writing during high school. His English teacher provided some model papers for him to memorize. When he studied for the TOEFL and SAT writing tests in a “cram school,” he used writing templates to deal with the tests. Steve was also instructed to memorize a series of well-written and difficult sentences; he said of this practice, “I would imitate those example sentences and practice writing a few every day. The teacher would correct my sentences and ask me to recite those example sentences” (Background interview, 2/6/2014). It seemed that the use of model papers or well-written sentences played an important role in Steve’s prior writing instruction and perhaps provided some foundation relative to writing in English.
After he began his college study in the United States, Steve took the first-sequenced academic writing course (1901) in the semester previous to the one in which this study occurred. In that course, he was introduced to source-based writing, such as writing a summary, an evaluative essay, and a persuasive essay, and learned the citation practices of source use. At the beginning of the 1902 course, when I asked Steve whether he had heard of the term “synthesis” before, not surprisingly, he said “no.” I prompted him to think about other writing tasks that might be similar to synthesis writing. Quite interestingly, Steve considered that the structure of a synthesis paper was similar to the TOEFL independent writing task, in which “you will use some examples, usually three examples, to illustrate your points.” However, he thought that the TOEFL integrated writing task and synthesis writing were somewhat similar “because integrated writing asks you to use listening and reading materials in your essay. Synthesis writing also requires you to search articles and use those articles in your paper” (Background interview, 2/6/2014).

When I asked Steve to define synthesis writing, he said that, “It is like what the teacher has told us, to collect information from different sources to compose an essay” (Background interview, 2/6/2014). At this point, Steve just began to look for sources in the academic database. Though he had not deeply engaged in working with sources, he seemed to pay attention to Ms. Perry’s instruction and followed her guidance. In addition, as a Mathematics and Business major undergraduate student, Steve rated his motivation to learn English academic writing as “high” and believed that learning synthesis writing would be beneficial for his academic studies in the future.
Learning to Write a Short Synthesis Paper

When learning to write the short synthesis paper, Steve followed Ms. Perry’s instructions and guidance closely. He chose the topic “How advertisements change people’s decision-making” because in a statistics course that he was taking concurrently, the class discussed the influence of advertisement on customer’s purchase behaviors using categorical data. In addition, a recent reading in the course discussed “new media.” Steve thought, “It is a bit easier to integrate the course reading into my paper because advertisement is very popular in new media.” After settling on his topic, Steve first proposed some answers to his research question “How advertisements influence people’s decision-making?” But he could not find sources to support his points. Thus, he revised his thesis points after reading the source texts that he selected for his short synthesis paper. Steve briefly commented on his reading strategies, “I first read the abstract and then the introduction. The majority part of the article is about how the study was done so I didn’t pay much attention. I focused on the abstract and introduction, and looked for the most appropriate parts to use” (Mid-course stimulated-recall interview, 3/11/2014).

In the pre-writing stage, Steve highly valued the outlining task, which he rated as “very useful” for writing the short synthesis in the end-of-semester survey. In the outline, he carefully considered each component in the worksheet, including hook, brief overview or history of the topic, thesis statement, your thoughts, the sources, and conclusion. He listed one essay from the course-required reading and two additional articles from the database that were selected on his own. His outline worksheet showed that Steve already
had a clear plan before writing the drafts. To help him further develop his paper, Ms. Perry gave him the following comments:

Be sure that under ‘your thoughts’ you actually have your own thoughts. If people are more likely to notice leftward things, is that because you noticed it yourself in all the ads, or did you read that statistic somewhere? If you read it somewhere, then it’s not your thoughts. Your thoughts should be subjective, like this is a good or bad strategy, you do or don’t think it’s effective regardless of the statistic, you notice this is true in the ads you see on campus, etc. Also, are there other professional methods that you could include in this paragraph? (The teacher’s feedback on Steve’s outline of the short synthesis)

Basically, Ms. Perry provided two important suggestions to Steve: the first one was to distinguish between his ideas and the source ideas, and the second was to look for connections in different sources that talked about the same point or topic. In response to Ms. Perry’s comments, Steve accepted all her suggestions. In his final draft of the short synthesis (Table 6.3), he revised his topic sentence to show his opinion. He also looked for “other professional methods” discussed in another source; as he explained, “Because the second source only talked about one professional method–leftward lighting, I went back to the first source and found another method–decision framing. So the two methods together support my second point” (Mid-course stimulated-recall interview, 3/11/2014).
Advertisements will use some professional methods that could increase purchase intention. Currently, more and more people go to college to study psychology and advertisement science. Many merchants employ people from nearly all fields of study to increase sales. Therefore, many professional methods are used in advertisements. Li, Sun and Wang (2007) define “decision framing” which is the psychology of a consumer when they make a choice. When merchants know what consumers think about, they can easily seize the minds of consumers and change consumer’s decision-making. In addition, in article “Leftward Lighting in Advertisements Increases Advertisement Ratings and Purchase Intention,” Jennifer Hutchison, Nicole A. Thomas, and Lorin Elias (2011) conclude that the advertisements in the left are more effective than advertisements in the right. If merchants display all kinds of advertisements on the left of people, people could be easily be attracted by them. Besides, according to Hutchison, Thomas, and Elias (2011), “the preferred illumination position was 26 degree to the left of above” (p. 424). By these professional methods, merchants even could know the best angle. As for advertisements could change people’s decision-making, we can readily explain it. Although consumers cannot control themselves to see right or left, they should know the fact and avoid being controlled by advertisements. As a result, some professional methods are made full use of in advertisement to alter people’s decision-making.

In Table 6.3, the first column represented the final draft of Steve’s short synthesis paper, and the second column illustrated his comments about his composing processes. In this paragraph, Steve first stated his thesis point in unit 1. Next, he provided the background in order to introduce the source about professional methods (unit 2). In unit
3, he cited the first source, which defined “decision framing” as the first professional method. In fact, Steve explained that:

Initially, this paragraph only relies on the second source, which is about ‘leftward lighting.’ The teacher gave me the feedback and asked me ‘Are there other professional methods that you could include in this paragraph?’ So later I found ‘decision framing’ from the first source and added it here. (Mid-course stimulated-recall interview, 3/11/2014)

Steve continued explaining the definition of “decision framing” in unit 4. Next, using the transition phrase “in addition,” he switched to the second source, which talked about another professional method, “leftward lighting.” He briefly summarized the main finding of the article (unit 5), followed by an extended discussion about the summary (unit 6). While doing so, Steve used the transition word “besides” to signal another citation of the source. In unit 7, he quoted a specific part, “the preferred illumination position was 26 degree to the left,” from the second source, and interpreted the quote in the next unit. When I asked Steve why he decided to use a summary in unit 5 and a quote in unit 7, he explained, “If the original source sentences are well written, or if the original source is difficult to change or paraphrase, it is better to use quotation” (Mid-course stimulated-recall interview, 3/11/2014). Finally, before writing the concluding sentence in unit 10, Steve added a subjective comment from the consumer’s perspective (unit 9) according to Ms. Perry’s suggestion in the tutorial.

The above analyses of Steve’s stimulated-recall protocol about his short synthesis revealed that Steve successfully made some important rhetorical moves in his very first synthesis writing task, for example, making a claim (unit 1), summarizing or quoting the sources (units 3, 5 & 7), and explaining or extending the sources (units 4, 6 & 8). In this paragraph, he was able to find relevant links (e.g., two professional methods) between the
two sources. He also employed appropriate strategies for source use (e.g., summarizing the main finding in unit 5 and quoting the important information in unit 7). By using proper transitional phrases, Steve made the various rhetorical moves smoothly.

Furthermore, the overall textual analyses in Table 6.4 below shows that Steve performed rather successfully in the short synthesis task: he selected appropriate sources, established a reasonable number of intertextual, intratextual and writer-source integrations, and employed various strategies of source use. In other words, he successfully developed an appropriate task representation for the short synthesis assignment.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Short synthesis</th>
<th>Long synthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of sources</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>Appropriateness</td>
<td>Appropriate</td>
<td>Appropriate</td>
</tr>
<tr>
<td>Integration of sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of intertextual</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of intratextual</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of writer-source</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Strategies of source use</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Paraphrase</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Quote</td>
<td>3</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 6.4: Textual Analyses of Steve’s Short and Long Synthesis Papers
Several reasons may explain Steve’s successful learning experience of the short synthesis. First of all, because synthesis writing was a brand new literacy task for him, Steve carefully followed Ms. Perry’s classroom instruction and feedback. For example, when writing the introduction and conclusion, Steve recalled the class discussion about the techniques for writing an introduction and conclusion, which he found “very useful” in the end-of-semester survey. He reflected on the rhetorical context of his own paper and considered how to apply the classroom discussion to his paper. The following comment explained his writing decisions:

I looked at those categories and remembered the teacher talked about using personal experience. Since my topic advisement is closely related to people’s life, I decided to use personal experience to begin my paper… The teacher also discussed several techniques for writing an ending comment. One of them is to connect to the introduction. So [in the conclusion] I use an example to connect to the personal experience that I wrote at the beginning of the introduction. (Mid-course stimulated-recall interview, 3/11/2014)

Second, Steve considered the individual tutorial with Ms. Perry “very useful” in composing his short synthesis. In fact, unlike Jane, who asked a lot of questions, Steve was rather quiet during the tutorial; however, he paid a lot of attention to Ms. Perry’s feedback. For example, Ms. Perry provided six revision suggestions for his short synthesis paper, including pronoun use, word choice, verb tense, citation format, sentence structure and content. Steve accepted all her suggestions and made careful revisions in his final draft. In particular, Ms. Perry pushed him to think more deeply about the source information at the end of the tutorial:

I think you did a great job of incorporating everything together. But you kind of have a similar problem that some of the students are having, which is you have all your information and you put out there; but it is very objective. That’s a little bit obvious. So of course advertisers display slogans, of course they use professional methods, and of course they would use new media. So the question now is: What
do you think about that? Why is that important? Is it good that they use new media? Is it good or bad that they use professional methods? Do you think they should use other new methods? Or are you on the side of the consumers or are you on the side of the company? … So what I mean is what is your subjective opinion about these methods? (Tutorial comment on Steve’s short synthesis paper, 3/5/2014)

In response to Ms. Perry’s suggestion, Steve added one or two sentences about his subjective comments toward the end of each paragraph. An example was unit 9 in Table 6.3, in which Steve offered a suggestion, “Although consumers cannot control themselves to see right or left, they should know the fact and avoid being controlled by advertisements.” Steve explained that:

So basically in every paragraph before the concluding sentence, I added a subjective sentence. Because in the tutorial, the teacher suggested that I add a subjective comment about advertisement, whether I speak from the seller’s point of view or consumer’s. So in every paragraph, I added a suggestion or advise for consumers. (Mid-course stimulated-recall interview, 3/11/2014)

In sum, the data presented above revealed that Steve, a good and hardworking student, attempted to acquire the new literacy skill of synthesizing using the available instructional resources at hand. That is, he actively sought a workable task representation for the assignment. However, Steve still encountered some difficulties; as he said, “The most difficult part is to clearly articulate your points and use the sources to support your points. Once you decide your thesis points and select the sources for each sub-point, it becomes less demanding” (Mid-course stimulated-recall interview, 3/11/2014). To elicit his ongoing understanding of synthesis, I asked Steve to summarize his definition of synthesis and underline his changes of understanding. Steve responded as follows:

I think synthesis writing is having an opinion about a certain topic and using various sources to support the opinion… In the past, I would not use many paraphrases and summaries in my paper. I would use very few evidences and
sources. Now especially in the body paragraphs, I need to use a lot of sources. (Mid-course stimulated-recall interview, 3/11/2014)

Therefore, Steve had noticed the important role of source use in synthesis writing, as it was comparable to the previous writing tasks he had encountered. He realized that the TOEFL and SAT writing tasks did not require using sources at all, and source use only played a small part in the first ESL writing course (1901). However, he recognized that the fundamental source-based writing skills, such as summarizing, paraphrasing and citation practices, are transferrable to synthesis writing. This recognition of the transfer possibilities associated with those skills was important in terms of his movement to the long synthesis paper, as was the effective task representation he had constructed.

**Learning to Write a Long Synthesis Paper**

In learning to write the long synthesis paper, Steve proposed to write about “the benefits of the Internet” in his topic proposal and planned to discuss four different aspects of the topic, including online education. After doing a preliminary search, he selected several articles and summarized the main ideas of those articles in the annotated references assignment. When he wrote the outline, Ms. Perry thought his topic was too broad and suggested that he just focus on one point—online education. Initially, Steve worried that he might not be able to find enough information to write his whole paper on one point. Nevertheless, he accepted Ms. Perry’s challenge to explore one aspect of the Internet—online education. At this point, Steve had already found one source about online education. He continued looking for relevant sources to come up with his thesis points. While reading the sources, Steve revised his outline simultaneously.
As discussed in Chapter 4, Ms. Perry added several important items to the outline in order to highlight the relationships among sources (see Table 4.1). Steve’s outline worksheet demonstrated that he carefully read the sources and considered the connections among sources and between sources and his own ideas before writing his drafts. The following transcript excerpt further illustrates his reading and writing processes (Post-course stimulated-recall interview, 4/20/2014):

Ruilan: How did you read the source texts?
Steve: I used keywords to search the database. After I found the sources, I read the abstract first. If it is appropriate for my paper, then I skim some paragraphs to see whether I could find some parts to use in my paper.

Ruilan: How did handle the reading and writing processes?
Steve: I first came up with several thesis points or hypotheses. Then I searched the database and during this process I may find some sources that disagree with my proposed thesis points. If I thought these sources were appropriate for my paper, I revised my thesis points and continued searching.

Ruilan: So the source selection and composing process happened simultaneously?
Steve: Yes. Because if you already decided your thesis points and looked for sources, you might not be able to find the exact match. If you didn’t have preliminary thesis points, it might be too broad to narrow down your search. So I took a middle ground.

In the above comments, Steve described his recursive reading and writing processes (McGinley, 1992; Plakans, 2008) when comprehending the source texts and composing the long synthesis paper. Compared to the short synthesis, he seemed to understand the reading-writing relationships better for the long synthesis assignment, as he had formed his own approach, to deal with the complex reading and writing activities associated with synthesizing.

Below, Figure 6.4 shows Steve’s working draft of the long synthesis paper, together with Ms. Perry’s revisions during their tutorial. Their interaction in Transcript #
Online education can encourage more participation. Our classes sometimes are quiet and many students don’t want to say their opinion during class. Also, some of the classes are big, and professors/the professor may miss some students’ opinion. In the article “Foster strengths and circumvent weaknesses: Advantages and disadvantages of online versus face-to-face subgroup discourse,” Mingzhu Qiu and Douglas McDougall (2013) says that “The difference I find in an online subgroup is that students are willing to participate and are not eliminated by other members, whereas … in a face-to-face subgroup sometimes students are a little shy. There is no way to hide in an online course. You have to do your own work” (p. 6). In face-to-face class, when students are required to discuss, some students’ opinion may be ignored. However, in online class, when students are required to participate in discussion, they have to discuss and professors will not ignore their opinion. *example from your life?* Qiu and McDougall (2013) believe that online education is able to give students enough time to discuss and give international students a better way to discuss. Actually, it’s difficult for some international students to discuss with American students due to languages and personalities. If class is online, international students can take part in discussion without the problem. *example* Also, when students discuss in face-to-face class, professors cannot give students so much time to do it. The problem can be solved when the discussion is online. In conclusion, online education gives students a better opportunity to take part in discussion.

Figure 6.4: Excerpt #1 from Steve’s First Draft of the Long Synthesis and Revision

Transcript #1 of Steve’s long synthesis paper tutorial (4/10/2014)

Ms. Perry: “Also, some of the classes are big, and professor may miss some students’ opinion.” Here you need to say “the professor” or
“professors.”

Steve: Uh-hum.

Ms. Perry: “In the article …” [underlines the first letters] You should capitalize the title of the article. “Mingzhu Qiu and Douglas McDougall say that …” Can you have a better reporting verb?

Steve: Show that.

Ms. Perry: That’s good. Also this is a really long quote. One, two, three lines. Anytime you have a quote and you like it, it can become shorter. For example, if you don’t want to say this first sentence, you can just put three dots. I think that’s a good idea when you have a really long quote. You can delete some and put three dots like that.

Steve: OK.

Ms. Perry: “In face-to-face class, when students are required to discuss, some students’ opinion may be ignored. However, in online class, when you are required to participate in discussion, you have to discuss and professors will not ignore your opinion.” Who is you?

Steve: Students.

Ms. Perry: Ok, yeah, Try to avoid the word “you” in your paper. So “when students are required to participate in discussion, they have to discuss and professors will not ignore their opinion.” Do you have an example from your life?

Steve [Remains silent and thinks about the teacher’s question.]

Ms. Perry: Include an example. You don’t have to, but I think it would really help to show what you are talking about. Because I know in my life, I have definitely been shy to share my opinion. I did take one online course in my master’s classes and the teacher counted how many times we participated. So we had to participate. I think you can add an example from your college experience [writes “example from your life?” on the margin of the paper]

Steve: Uh-hum.

Ms. Perry: “… take participate in discussion?” It should be “take participation in discussion.”

Steve: OK.

Ms. Perry: [Continues reading the rest of the paragraph] OK, this is good. Again here you can have your example. Do you have any class where you are the only international student or there are a few international students?

Steve: Err…

Ms. Perry: Have you had international students in every class?

Steve: Almost.

Ms. Perry: Almost. OK, you can still give an example. [Writes “example” on the margin of the paper] I think since you have experience being in classes with Americans, you can talk about it here. You can talk about here being shy about your opinion. You can also talk about it
here, being shy about your language ability. So that would really enhance this paragraph.

During this section of the tutorial, Ms. Perry provided feedback on language and stylistic issues, such as using correct word forms (e.g., the professor or professors, take participation) and avoiding informal language (e.g., “you”). She also helped Steve learn the citation practices, such as acquiring the citation format (e.g. capitalization of the article title), choosing a proper reporting verb (e.g., show vs. say), and making a succinct quote. More importantly, Ms. Perry suggested that he add his own examples, in other words, establish more writer-source integrations, to enhance this paragraph.

When Steve revised this draft, he took Ms. Perry’s advice. The revisions were observed in the final draft of his long synthesis, as illustrated in the first column of Table 6.5. I also include his retrospective comments about the composing processes in the second column of Table 6.5.
Online education can encourage more participation. Our classes sometimes are quiet and many students don’t want to say their opinion during class. Also, some of the classes are big, and professor may miss some students’ opinions. In the article “Foster Strengths and Circumvent Weaknesses: Advantages and Disadvantages of Online Versus Face-to-face Subgroup Discourse,” Mingzhu Qiu and Douglas McDougall (2013) show that “In a face-to-face subgroup sometimes students are a little shy. There is no way to hide in an online course. You have to do your own work” (p. 6). In face-to-face class, when students are required to discuss, some students’ opinion may be ignored. However, in online class, when students are required to participate in discussion, they have to discuss and professors will not ignore their opinion. In my online art education course, we were required to discuss in Carmen, and our TAs and the professor replied all our responses. Qiu and McDougall (2013) agree that online education is able to give students enough time to discuss and give international students a better way to discuss. Actually, it’s difficult for some international students to discuss with American students due to languages difficulty and personalities. In my education class, my classmates are shy, and the class is always quiet. If the class is online, international students can take participation in discussion without the problem. Also, when students discuss in face-to-face class, professors cannot give students so much time to do it. The problem can be solved when the discussion is online. In conclusion, online education gives students a better opportunity to take part in discussion.

This is my topic sentence. Here I add my own observation. Here I quote the source because it is written in a very simple way and I don’t know how to paraphrase it in a better way. This part is an extended discussion about the source. This sentence is my personal example, which supports the ideas from the source. Here I summarize the two authors’ opinions that online education provides enough time for international students. It is difficult to find an exact quote so I just summarize their opinions. This is a further explanation of that source. This is my example that is connected to the source. This part is a further explanation of my point: online education gives students enough time. This sentence is the restatement of the topic sentence.

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Table 6.5: Illustration #1 of Steve’s Stimulated-recall Interview about his Long Synthesis
In comparison to his first draft, in addition to fixing the language and stylistic problems, Steve added more examples (units 5 & 8) to make connections to the sources following Ms. Perry’s suggestions. His comments in the stimulated-recall interview further revealed that he made a series of key rhetorical moves discussed in the work of Graff et al. (2009) and Harris (2006). In this paragraph, Steve made a claim in the first unit and defined the function of the first sentence as “topic sentence.” He then illustrated his claim using his personal observation (unit 2). In the third unit, he framed the quote and cited the source. He also explained the reason for his choice of source use—quoting instead of paraphrasing the actual source. After citing the source, he extended the quote by providing a detailed explanation (unit 4). In the fifth unit, he illustrated the source idea with a personal example by establishing writer-source integration. The sixth unit connected the previous discussion about the source to a summary of the authors’ opinion. Steve continued explaining the authors’ opinion (unit 7) and connected his own example to that opinion (unit 8). In the ninth unit, Steve provided a contrasting example to support the point that “online education gives students enough time.” Finally, he concluded this paragraph with a restatement of his claim (unit 10).

In addition to “use more examples,” another major piece of advice that Ms. Perry offered in the tutorial was “to use more transitions.” She continued saying, “Transitions will help to increase the coherence which means it’s gonna be easy to read.” In Figure 6.5 and the following transcript # 2 of the tutorial, Ms. Perry helped Steve make a better transition between paragraphs, and form more intratextual and writer-source links within the paragraph. More importantly, Ms. Perry noticed that Steve did not include the idea of
this paragraph in the thesis statement; thus, she suggested Steve revise his thesis statement.

| *Transition sentence, see document on the course webpage* Online education declines the quality of learning. Many students like me cannot focus on online class, and they are always absent-minded during online class. It may result in the decline of the quality of learning and the decreasing of students’ grades. In article “Does the Internet Make Your Dumber,” Nicholas Carr (2010) says, “When we’re constantly distracted and interrupted, as we tend to be online, our brains are unable to forge the strong and expansive neural connections that give depth and distinctiveness to our thinking” (p. 197). Internet is not only addictive but also erodes our concentration. Carr (2010) also cited an experiment from Cornell University which concludes that students who use laptop in a lecture have a lower grade. Even in face-to-face class, computer and phone will distract students. If students take the class online, students cannot pay attention in class. They are able to play games, talk with a friend or anything they want due to the class is being online. Although online education is extremely easy for some students, their grades must be influenced for a long time. Qiu and McDougall (2013) say that students “May fail to notice teacher presence” (p. 8) and feel “Frustrating moments of misunderstanding” (p. 9). In face-to-face class, when students are confused, they can ask questions in class. *example* However, in online class, it’s difficult for students to ask a question. More and more problems are accumulated, and students’ cannot get a good grade. Therefore, online education results in students cannot pay attention in class and cannot solve problems in time, which leads a lower grade. |

Figure 6.5: Excerpt #2 from Steve’s First Draft of the Long Synthesis Revision

Transcript # 2 of Steve’s long synthesis paper tutorial (4/10/2014)

Ms. Perry: Here you just talked about the positive things. Now you are gonna talk about the negative things, right? So you need a transition sentence. You should put in the beginning of this paragraph. [Writes “transition sentence, see document on the course webpage” on the margin] You should say something about the previous information
but also looking forward to the next information. Do you have an idea about what you can say?

Steve: Uh-hum?

Ms. Perry: I want to show you a document. You think about your sentence…

This document is on our course webpage—Transitions and Conjunctions. These are words that will help you make a good transition. We have one called, you can accept what was said, and then say something opposite, like contrast here, so you have these words “although, but, conversely, on the contrary” all of these you can use in your transition sentence. So for example, “even though there are many benefits of online education, there are also some drawbacks” or “by contrast, there are many negative things” or “regardless of having many wonderful benefits, there are some drawbacks.” You can choose any of these to help you with an opposite view.

Steve: OK.

Ms. Perry: “Carr (2010) cited” what you can do here, you are talking about the same guy. “Carr (2010) also” this will help you continuing the conversation. Using words like also helps with coherence and brings the paper together.

Steve: OK.

Ms. Perry: [Corrected some verb forms in the middle of this paragraph] This whole paragraph, you could have examples. You can talk about in your class you see your neighbor on Facebook. Talk about when you are bored sometimes with your online class. [Write “example” on the margin of the paper]

Steve: OK.

Ms. Perry: [Looks back at the thesis statement] OK, you talk about “not focusing in online class” but it is not in your thesis statement. So you need to put here, not focusing [write “not focusing” beside the thesis statement].

Steve: OK.

Ms. Perry: Do you see what I mean? You have this whole great paragraph about “not focusing,” but it is not in your thesis. So do you think you can add it here?

Steve: Yeah.

Following Ms. Perry’s advice, Steve revised his thesis statement, adding the part about “not focusing in online class.” However, he did not passively copy what Ms. Perry said in the tutorial; instead, he rephrased the negative aspects about online education and made the revision as highlighted in bold in Figure 6.6.
To provide an overall picture of Steve’s reaction to Ms. Perry’s tutorial in Transcript # 2, another excerpt of his final draft of the long synthesis paper is provided in Table 6.6, together with his comments from the stimulated-recall interview. Several significant improvements were observed in Steve’s final draft of the long synthesis paper. First, adopting Ms. Perry’s suggestion, he added a transition sentence at the beginning of this paragraph before stating his topic sentence (unit 1). Second, Steve made appropriate decisions regarding his strategies of source use; for example, he properly quoted the important concluding sentence (unit 3), summarized the main finding of the study (unit 5), and skillfully quoted two key points (unit 7). Furthermore, not only did he cite the
sources properly, he also provided sufficient explanations (units 4 & 6) and example (unit 8) to make connections to the sources.

<table>
<thead>
<tr>
<th>Excerpt #2 of Steve’s long synthesis paper</th>
<th>Comments on his paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Even though online education has many advantages, it also still has many drawbacks. Online education leads to the detraction of students which results in the decline in the quality of learning. Many students like me cannot focus on online class, and they are likely to be absent-minded during online class. It may result in the decline of the quality of learning and the decrease of students’ grades.</td>
<td>1 This is my topic sentence.</td>
</tr>
<tr>
<td>2 In the article “Does the Internet Make You Dumber,” Nicholas Carr (2010) concludes that “when we’re constantly distracted and interrupted, as we tend to be online, our brains are unable to forge the strong and expansive neural connections that give depth and distinctiveness to our thinking” (p. 197).</td>
<td>2 This part is my elaboration of the topic sentence.</td>
</tr>
<tr>
<td>3 Internet is not only addictive but also erodes our concentration. Carr (2010) also cited an experiment from Cornell University which concludes that students who use laptop in a lecture have a lower grade. Even in face-to-face class, computer and phone will distract students. If students take the class online, students are less likely to pay attention in class. They can easily play games, talk with a friend or anything they want due to the class being online.</td>
<td>3 Here I quote the source because I don’t know how to summarize or rephrase this sentence.</td>
</tr>
<tr>
<td>4 Although online education is extremely easy for some students in a short run, their grades must be influenced in a long run. Qiu and McDougall (2013) report that students may “fail to notice teacher presence” (p. 8) and feel “frustrating moments of misunderstanding” (p. 9).</td>
<td>4 This sentence connects the quote and following citation of the source.</td>
</tr>
<tr>
<td>5 In face-to-face class, when students are confused about something, they can ask questions in class. For example, in my statistics class, we have two recitations every week, and we are able to ask questions frequently. However, in online class, it is difficult for students to ask a question. If more and more problems accumulate, students are less likely to get a good grade.</td>
<td>5 Here I summarize the result of a study cited in the source. It was a paragraph in the source text so I just summarized the main finding.</td>
</tr>
<tr>
<td>6 Therefore, online education results in that students are unable to pay attention in class and cannot solve problems in time, which leads to a lower grade.</td>
<td>6 Because this study did not mentioned online education directly; it mainly talked about the use of laptop during lectures. So here I connect this source to online education.</td>
</tr>
<tr>
<td>7 Here I cite the first source again. Because the article listed many advantages and disadvantages of online education, it is easy to find exact quotes in the source. I quote two disadvantages mentioned in the article.</td>
<td>7 Here I cite the first source again. Because the article listed many advantages and disadvantages of online education, it is easy to find exact quotes in the source. I quote two disadvantages mentioned in the article.</td>
</tr>
<tr>
<td>8 Here I give a personal example, which was not included in my first draft. The teacher suggests me add more personal examples in the tutorial so I add more examples.</td>
<td>8 Here I give a personal example, which was not included in my first draft. The teacher suggests me add more personal examples in the tutorial so I add more examples.</td>
</tr>
<tr>
<td>9 Finally this is my conclusion.</td>
<td>9 Finally this is my conclusion.</td>
</tr>
</tbody>
</table>

Table 6.6: Illustration #2 of Steve’s Stimulated-recall Interview about his Long Synthesis
At the end of the course, I asked Steve to compare his experiences writing the short and long synthesis papers. He considered the two papers very similar in terms of organizational structure; for instance, both have the introduction, body paragraphs and conclusion. However, he indicated that he better understood the connections among sources and between personal examples and sources when writing the long synthesis paper. This signals growth in his task representation for synthesizing. For example, in his short synthesis, he did not know “whether it is appropriate to add personal examples,” as he explained, “I have never practiced synthesis writing before” (Post-course stimulated-recall interview, 4/20/2014). Following Ms. Perry’s advice, Steve used more examples that were appropriate for his long synthesis paper because “they are not stand-alone examples; rather they are integrated into the evidences I presented” (4/20/2014). In his opinion, the short synthesis instructional unit taught him the basic organizational structure of a synthesis paper, and how to select and use sources; the long synthesis paper provided more opportunities for him to practice selecting appropriate sources and integrating them together. This suggests that Steve saw opportunities for transferring what he had learned while composing the short synthesis paper to his writing of the long synthesis. Not surprisingly, Steve considered the outlining crucial for both synthesis writing tasks and found selecting appropriate sources particularly challenging. He explained the major difficulty of synthesis writing as follows:

I think outlining is important … because outline asks you to organize your thesis points and your sources. Once you have all these information, it is much easier to
compose the paper. But the process of writing a good outline is not easy because you need to come up with your topic sentences and select the appropriate sources to support your topic sentences. Selecting proper sources is not that easy. (Post-course stimulated-recall interview, 4/20/2014)

Finally, Steve summarized his final understanding of synthesis; he said, “Synthesis writing is putting together different sources or connecting the sources together to support the topic.” He used an interesting metaphor to describe the process of synthesis writing, which was “It is like putting together a lot of sources and relating them to one another. It is like a hotpot with different types of ingredients” (Post-course stimulated-recall interview, 4/20/2014).

**Summary of Steve’s Development in Synthesis Writing**

In sum, Steve’s story portrayed another successful reader and writer’s learning experience of the hybrid literacy task—synthesis writing—and his ability to construct a successful task representation for synthesizing. Steve, under the guidance of Ms. Perry’s classroom instruction and individualized tutoring, gradually developed his understanding of synthesis writing and source use. When working on the short synthesis paper, he grasped the fundamental organizational structure of a synthesis paper by closely following the outline provided by Ms. Perry. He understood the important role of sources, but found selecting appropriate sources particularly difficult in composing a synthesis. Still, it appeared that, as with Jane, Steve acquired a baseline schema for synthesis writing during the short synthesis paper unit, one that allowed him to engage in near transfer of his synthesis knowledge and skills when he transitioned to the long synthesis assignment a short while later. He recognized similarities between the two tasks, and this recognition primed his near transfer of synthesis writing ability. When writing the long
synthesis paper, he became more skillful in selecting the appropriate sources and continued developing his skills of source integration, in particular, connecting his own experience to the sources. With regard to his knowledge of source use, he acquired not only the textual borrowing and citation practices (knowledge telling), but also the rhetorical knowledge of integrating multiple sources to construct meanings beyond the source texts (knowledge transforming). Thus, we see an expansion of his task representation for synthesizing.

Considering synthesis as a completely new genre of academic writing, Steve meticulously followed Ms. Perry’s advice during the comprehending and composing processes. He well understood the reading-to-write processes in synthesizing and developed more of a *recursive* reading and writing approach to the synthesis tasks. Furthermore, he applied his rhetorical knowledge (Haas & Flower, 1988), mostly from the reading of the sources, to the composition of synthesis papers. Steve’s successful learning experience was partly due to his close attention to Ms. Perry’s step-by-step instruction; at the same time, it was also because he considered learning synthesis writing valuable for his academic success in the university. Thus, Steve was intrinsically motivated to learn English academic writing and developed his epistemic understanding of source-based writing, including synthesizing. This high level of motivation may also have supported his successful efforts at transfer as he moved from the short to the long synthesis task.
The Characteristics of Successful Synthesis Writing of the Two Strong Writers

Comparing the two students’ writing development discussed earlier, I have observed several similarities and differences between their experiences, strategies and approaches in learning to write synthesis papers. Their relatively successful learning experiences reveal some positive characteristics of their synthesis writing. Below I discuss four major characteristics of successful synthesis writing and highlight the two writers’ shared and varied strategies and approaches to coping with this complex literacy task.

Task Representation of Synthesis

First of all, both Jane and Steve developed a comprehensive task representation of synthesis throughout the course. Here, Spivey’s (1990, 1997) constructive model of discourse synthesis provided a useful theoretical framework to examine their developmental understanding of synthesis. The discourse synthesis model consists of three operations—organizing, selecting and connecting in the processes of reading sources and writing from sources. Table 6.7 below provides a quick overview of their task representation of synthesis as it progressed.

In the short synthesis unit, both Jane and Steve quickly grasped the basic organizational structure of a synthesis paper, thus establishing a schema for synthesis writing, so they were able to allocate their time and effort to other components of synthesizing, such as selecting proper sources, learning to cite the sources correctly, and integrating the sources together. This opportunity to devote their attentional resources to these other aspects of synthesizing may have been crucial in building their synthesizing
schema that proved so helpful later in the course. However, they did find selecting
appropriate sources very challenging. Not surprisingly, their understandings of source
integrations were somewhat limited, given that this was their first time writing a synthesis
paper. This limitation sheds light on the complexity involved in the developmental
trajectory associated with synthesis writing.

<table>
<thead>
<tr>
<th></th>
<th>Jane</th>
<th>Steve</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial understanding of synthesis</td>
<td>Synthesis is summary plus critical thinking. It is similar to summary</td>
<td>Synthesis is like what the teacher has told us, to collect information</td>
</tr>
<tr>
<td></td>
<td>and response, but based upon multiple sources.</td>
<td>from different sources to compose an essay.</td>
</tr>
<tr>
<td>Ongoing representation of the short</td>
<td>Synthesis writing is the combination of your ideas and the source</td>
<td>Synthesis writing is having an opinion about a certain topic and</td>
</tr>
<tr>
<td>synthesis task</td>
<td>ideas. Citation and organization are important but it is even more</td>
<td>using various sources to support the opinion. Source use is</td>
</tr>
<tr>
<td></td>
<td>important to thoroughly understand the source authors’ ideas and</td>
<td>especially important in synthesis writing.</td>
</tr>
<tr>
<td></td>
<td>skillfully integrated them with your own ideas.</td>
<td></td>
</tr>
<tr>
<td>Final representation of the long</td>
<td>Synthesis writing is combining the results and conclusions from</td>
<td>Synthesis writing is putting together different sources or connecting</td>
</tr>
<tr>
<td>synthesis task</td>
<td>academic research and your personal experiences to come up with your</td>
<td>the sources together to support the topic. It is like a hotpot with</td>
</tr>
<tr>
<td></td>
<td>own understanding about your topic.</td>
<td>different types of ingredients.</td>
</tr>
</tbody>
</table>

Table 6.7: Comparison of Jane and Steve’s Representations of Synthesis Tasks

In the long synthesis unit, Jane and Steve worked with a greater number of
sources, which provided expanded opportunities to develop their synthesizing skills and
deepen their understanding of synthesis. They pondered upon source selection and focused on establishing intertextual, intratextual and writer-source integrations. Moreover, both Jane and Steve seemed to understand that synthesis writing is not simply retelling the sources texts—“knowledge telling” (e.g., reporting findings from the sources or summarizing the authors’ opinions), but also transforming the sources and constructing new meanings out of the sources—“knowledge transforming” (e.g., discussing the topic from a new perspective, coming up with new ideas and knowledge).

**Source Use in Synthesis Writing**

As a complement to the first characteristic—understanding of synthesis—the second feature is that both Jane and Steve better understood the roles of sources in synthesis writing. They viewed sources as a fundamental component in composing a synthesis. They recognized different aspects of source use, including the mechanical aspect (e.g., citation format), linguistic aspect (e.g., appropriately summarizing/paraphrasing/quoting the sources), and the rhetorical aspect (e.g., skillful integration of source ideas to support the writer’s claims). They both moved beyond learning the linguistically oriented citation practices associated with source use, and focused on acquiring the rhetorical knowledge of source use.

**Approaches to the Reading and Writing Activities Related to Synthesis Writing**

The third good characteristic of the two strong writers’ synthesis writing lies in their reading-to-write approach to the synthesis tasks. As discussed in the second characteristic, Jane and Steve both recognized the importance of sources in composing synthesis papers. During their reading and writing processes, they spent a good deal of
time selecting, reading and sorting out the source information in the pre-writing stage, for example, first skimming and then carefully reading the sources, writing annotated references, and preparing the outlines. The reading component played a crucial role in their multi-draft composing processes, because they reasonably understood the context, purposes and content of the source texts (Haas & Flower, 1988). Thus, their rhetorical knowledge about the reading could inform their synthesis writing hereafter.

Although both understood the reading-to-write processes, Jane and Steve also demonstrated their individual approaches: Jane employed strategic reading in which she analyzed the discourse features of academic articles and purposefully looked for useful information in certain sections. Steve took a recursive reading-writing approach, in that he worked on reading the sources and refining his thesis points of the synthesis paper simultaneously. Both writers seemed to handle the large amounts of the complex reading materials well. Jane, an intuitive believer in reading-writing connections, was able to transfer her rhetorical knowledge about reading to her writing through carefully considering the rhetorical context, purpose and audience expectation in her long synthesis paper. Similarly, Steve successfully made a series of key rhetorical moves in his synthesis papers based on the use of multiple sources.

**Strategies to Appropriate the New Literacy Task of Synthesis Writing**

Finally, another characteristic of their successful experience in learning to write synthesis papers was the two strong writers’ own strategies to appropriate the components of synthesis writing. Because synthesis represented a new type of academic literacy for them, something not practiced in their previous literacy education and first language
cultural-rhetorical tradition, it was interesting to observe how the two students utilized their prior knowledge to gain command of synthesis writing. Jane actively looked for prior literacy tasks that were similar to synthesis writing and transferred her previously acquired literacy skills to cope with the reading and writing demands of synthesizing. For example, she first considered synthesis writing similar to “critical thinking.” Later, after she performed the summary and response tasks, she directly applied, or transferred, these skills to the short synthesis paper, and eventually to her long synthesis paper. In other words, an important skill Jane possessed was the ability to build and transfer schema as she moved across academic literacy tasks. Rather than seeing them in isolation, she made connections between the tasks, and this allowed her to engage in productive transfer of what she was learning. In contrast, taking synthesis as a completely new literacy task, Steve closely followed Ms. Perry’s step-by-step instruction to develop his synthesis writing ability. Once he grasped the essentials of this new writing genre in the short synthesis paper and thus had a working schema to draw from, he also carried the acquired skills and knowledge over to the long synthesis paper. That is, he, too, engaged in successful transfer from the short to the long synthesis task.

The two writers’ interactions with Ms. Perry in the tutorials seemed to show some differences. Jane was more active in negotiating her understanding of synthesis and her synthesis papers with Ms. Perry. Steve was rather attentive to Ms. Perry’s suggestions and demonstrated his evolving understanding of synthesis. Nonetheless, these differences might be due to their different personalities and their relationships with Ms. Perry, bearing in mind that Jane took Ms. Perry’s 1901 class the previous semester. However,
Both Jane and Steve were motivated to learn synthesis writing and considered it useful for their future academic studies. This motivation may have empowered their near transfer of synthesizing skills, and this ability to engage in productive transfer may have been a key factor in distinguishing between them and the two weak writers discussed in the next chapter. That is, the ability to transfer may be a key marker in analyzing the experiences of writers of different ability. This could be related to the construction of task representations, as the students with the more developed task representations were those who experienced successful transfer as well.
Chapter 7

Case Studies of Two Weak Writers’ Developments in Synthesis Writing

Introduction

In Chapter 6, I have discussed two strong writers’ developments in learning to write synthesis papers and the characteristics of successful synthesis writing they displayed. Chapter 7 focuses on two weak writers’ (Han and Chen) learning trajectories of synthesis writing throughout the 1902 course. This chapter draws from the same types of data sources and is organized in the same way as Chapter 6. First, I describe the stories of the two weak writers’ learning experiences with synthesis writing from a developmental perspective separately. After analyzing the individual cases, I compare the two weaker writers’ learning experiences to examine the less-successful features of their synthesis writing, that is, what it was that led to the characterization of them as weak writers. To prepare the later discussion about why the four focal participants performed differently in the synthesis tasks and what appeared to contribute to their varied abilities in synthesizing sources, the comparative analyses of the two weaker writers highlight four characteristics, which were also discussed in Chapter 6 with the two strong writers: 1) the students’ task representation of synthesis, 2) their source use in synthesis writing, 3) their approaches to the reading and writing activities related to synthesis writing, and
4) their strategies to appropriate this new literacy task.

This chapter starts with the case study of Han, a male freshman from China, who was deeply influenced by the writing practices in his native language (L1), Chinese. His story illustrates a newly arrived international student’s struggles in transitioning from a dramatically different textual world in the L1 to L2 English source-based writing. Next, the chapter discusses a less-successful transfer student, Chen, who employed his Chinese rhetorical knowledge to appropriate English synthesis writing without proper adaptation to the expectations for synthesizing in English. His story reveals the importance of developing intrinsic motivation and epistemic understanding of source-based writing for L2 writers to achieve academic success. Finally, I analyze the characteristics of the less-successful synthesis writing of the two weak writers and discuss the similarities and difference of their strategies and approaches to acquire command of this new and complex literacy task.
Han: “When I write English essay, I’m still thinking in Chinese.”

The Initial Encounter with Source-based Writing

Han was a freshman Communications major who had studied in the American university for five months at the time I met him. Before coming to the United State, he attended high school in China and at the same time studied in a “cram school” to prepare for the TOEFL and SAT tests. Because the English instruction in Chinese high schools focuses on vocabulary, grammar and reading comprehension, Chinese students usually have very limited exposure to English writing, while the writing instruction at cram schools normally focuses on test preparation. Thus, students like Han arrive at American universities with very limited experience as writers of English.

A common strategy at cram schools in China is to teach writing using templates that represent the major features of the writing to be learned. Han reported that he was advised to remember several templates for the TOEFL integrated and independent writing tasks and to duplicate those templates according to the writing prompts. He also learned how to use the five-paragraph essay structure to cope with the writing demands in those tasks. When writing English essays for the tests, he was not required to work with sources; rather, he used examples, such as famous persons’ anecdotes and personal stories. Han explicitly indicated that he “preferred to use personal examples, which were more unique and interesting” (Background interview, 2/12/2014).

After Han came to the United States, he took the first-sequenced academic writing course (1901) in his first semester at the university where the study was conducted. He found this introductory course very useful because before he “had no ideas about English
writing in the university” (Background interview, 2/12/2014). In that course, he learned citation practices and how to write in the “American way.” One major challenge that Han encountered when writing in English was how to adapt his Chinese way of thinking to the “American way.” As he said:

As a Chinese, I naturally associate Chinese writing with English writing. When I write English essays, I’m still thinking in Chinese. This is a problem. Last semester was my first semester in the American university; I kind of thought first in Chinese and then translated it into English. My essays were marked throughout. I just used Chinese way to write. (Background interview, 2/12/2014)

Han indicated that he made a lot of mistakes when he first began to learn to write from sources, including grammatical and stylistic mistakes. Also, the concepts such as paraphrase, summary and plagiarism were all very new to him. Admittedly, he was still in the process of acquiring these source-based writing skills; he stated that, “Here it is very strict in term of paraphrasing or summarizing, otherwise you will be accused of plagiarism. I’m not used to this, even now” (Background interview, 2/12/2014).

When I asked him what his initial understanding about synthesis writing was at the beginning of the semester, Han replied that he had “never heard of it” and believed that, “It is like a discussion or explanation about a certain topic. It’s like research report” (Background interview, 2/12/2014). When I prompted him to think about the similarity and differences between synthesis writing and other source-based writing tasks, he was able to identify the most salient features, for example, “The organizational structure is quite similar; you need to have a thesis and use APA citation format” (Background interview, 2/12/2014). Han also perceived the connections between source-based writing skills (e.g., summarizing, paraphrasing, responding, and APA format) and the short
synthesis paper. Furthermore, he noticed the unique feature of synthesis writing; that was “I need to search articles in the database before writing the synthesis paper. This is the first time for me” (Background interview, 2/12/2014). But, at this early stage, Han believed that he should include more of his own ideas in the synthesis paper, rather than focus on the use of sources. Hence, this was an incomplete task representation of the short synthesis paper.

Learning to Write a Short Synthesis Paper

When he began writing the short synthesis, Han picked up the topic “Changes in commercials” because it was discussed in his communication course and he already had some background knowledge about this topic. However, Han did not quite understand the purposes of the pre-writing activities, particularly the outline, in which Ms. Perry asked the students to list the sources they planned to use in the short synthesis. In his outline worksheet, except for stating his research question (“How do commercial change over time?”) and the focus of his paper (“change”), Han did not specify how he planned to summarize/paraphrase/quote the source texts, as he put “not decided yet” in the worksheet. He stated his thesis in the outline: “I am sure along with the change in society and technology, commercial has changed a lot. I am more interested in how it changed. Where do they appear? How is the change in context and effect people?” Ms. Perry noticed his main problems and provided the following comments to Han:

You need to find a quote/paraphrase/summary from your sources. Also, your thesis is not structured correctly. You need to state your thesis points in it. Your thesis points should be stated in complete sentences. (Teacher’s feedback on Han’s short synthesis outline)

In his later draft, Han revised his thesis statement to “Commercial has changed a lot
because there are a lot of technologies being used in it now. It also changed its media outlet and has different effect on people.” When I conducted the stimulated-recall interview in the middle of the course, I asked Han to comment on his responses to Ms. Perry’s written feedback, as shown in the following transcript excerpt (3/28/2014):

Ruilan: How did you come up with these three thesis points?
Han: I wrote the thesis myself. I don’t like to read sources. I like to write on my own; using sources is like interrupting my writing, but it is required to have sources. To be honest, I didn’t read the source very carefully. I just insert some quotes into my paragraphs.

Ruilan: OK, so basically you wrote the three points first and then looked for sources to use in your paper, right?
Han: Right! If the sources do not fit into my paper, I just change them a little bit to fit into my paper.

Han’s comments indicated that he did not follow the reading-to-write processes in composing the short synthesis paper. Instead of selecting and reading the source texts first, Han opted for a different route, which was composing the synthesis paper mainly based on his personal opinions. It seemed that Han did not quite understand the value of sources in synthesis writing; instead, he felt that using sources “interrupted” his writing. His strategy to meet the assignment requirement for source use was to “insert some quotes” into his paper. That is, he would provide them because they were expected, not as a meaningful rhetorical act. In Table 7.1 below, I look at a representative excerpt of Han’s short synthesis paper to further illustrate his understanding of source use.
Excerpt of Han’s short synthesis paper ¹

1. There are a lot more technologies used in the commercials now along with the advance in media. ² It can be very helpful if well controlled. ³ Commercial used to be simple—make people believe the products. Douglas Rushkoff (2012) states that “Wear these jeans and you’ll get to have sex” (p. 191). ⁴ Commercial used to be a sentence on the newspaper or a picture on the magazine but now there are lots of technologies used in them. Like Rushkoff (2012) claimed in his article, as the media gets bigger, the commercial gets more complex with it. ⁵ I remember a really splendid commercial. It was a commercial to help children from being hit at home or other places. However, most of time children are with their parents so if their parents see the commercial, it will not do any help. So the commercial company came up with an idea, the lines of sight of children are obviously lower than an adult. They printed a sentence and a phone number with specific angle and height says: “If you are being beaten, call this number”, so that only the children can see the number and call for help. ⁶ That is really creative and helpful. ⁷ Although commercials are not all thoughtful like this one, use in technology is a common trend, especially the use of computer science made scenes and created unreal characters. ⁸ There are a lot of symbol characters of products that everyone knows such as the MM chocolate beans and the Mr. Muscle. They are both productions of computer. Creating a symbol character is a good way to make people remember the product. ⁹ However, to bring these characters into action and did funny things are due to the modern computer technology. These are the good things technology brings to the commercial; technology also has some bad effects over it. ¹⁰ With the advanced computer science, people can make fake things seem like reality. Like in some hair product commercials, the model seems to have such nice hair due to their products. However, it is all made by computers and can mislead people sometime.

Comments on his paper

1. This is my topic sentence. ² I added this sentence to show my opinion. ³ Here I want to emphasize that commercials used to be quite simply, to compare to today’s commercials, which often use technologies. ⁴ This citation is to show that now commercials use more technologies and become more complex. ⁵ Here I give an example. This example shows how technology helps commercials achieve its purpose. This example is from my Communication course so I just use it here. ⁶ Transition to the next point. ⁷ I continue talking about the use of technology in creating commercials. ⁸ These examples are widely known, such as MM chocolate and Mr. Muscle. ⁹ This part is the negative effective of technology on commercials. ¹⁰ In the tutorial, the teacher told me to add the negative effect so I added a brief example.

Table 7.1: Illustration of Han’s Stimulated-recall Interview about his Short Synthesis

In the above paragraph, Han only cited one source (i.e., Rushkoff) at the beginning of this paragraph. He “inserted” a stand-alone quote (unit 3) and briefly
summarized the source ideas (unit 4). The major part of this paragraph was his own examples, either from his prior knowledge (“I remember a really splendid commercial” in unit 5) or common knowledge (units 7, 8, 9 & 10, e.g., “There are a lot of symbol characters of products that everyone knows such as the MM chocolate beans and the Mr. Muscle” in unit 8). Han explained that he used the source (i.e., Rushkoff) to introduce the later discussion that technology makes commercials more complex; however, “the connection between this source and the following examples was not very strong” (Mid-course stimulated-recall interview, 3/28/2014). Because the teacher required him to cite sources, he simply inserted a quote at the beginning of the paragraph and explained, “I feel like sources interrupt my writing.” Thus, it was as if Han was opposed to using sources, a belief that could have prevented growth in his understanding of how to synthesize. I was very curious as to why Han considered sources impeding rather than facilitating his synthesis writing processes, so I asked him in the mid-course stimulated-recall interview (3/28/2014) about this. This is the interaction that followed that question:

Ruilan: Why do you think that sources interrupt your writing?  
Han: Reading sources takes time and it makes writing more complicated. I don’t think that adding sources matters that much. If I take this source out, this paragraph would still be OK.  
Ruilan: So why do you think the teacher requires you to cite? What is the purpose of citing sources?  
Han: I feel it is really strange to cite. But it is the requirement. I guess it is because of format, like APA style. Citation rules are also very weird to me. Who can remember all those rules? … I think source is just a small part of the paper, which can be added at the end. It is not that important and I don’t think I need to find it before hand. Actually it would be easier to find sources later in the writing process.

The above interview segment, together with the excerpt from Han’s short synthesis paper (Table 7.1), shed valuable light on Han’s approach to synthesizing at that point in time.
First, reading the complicated academic texts posed a significant challenge to Han, who had recognized the complex reading and writing relationships at work in synthesizing. As he said, “reading sources takes time and it makes writing more complicated” (Mid-course stimulated-recall interview, 3/28/2014). However, instead of accepting the challenge such reading represented, Han fell back to his comfort zone of opinion-based writing, where source texts were unnecessary. Second, Han did not engage deeply in any complex reading and writing processes, since he viewed sources as an auxiliary component which could be “added” or “inserted” to his synthesis paper at the end. He seemed to equate learning-to-write from sources to learning the “weird citation rules.” For him, using sources simply meant meeting the task requirement and properly citing the sources. This narrow, restricted task representation for synthesizing at that point in his development was a barrier to attempting to use the various acts associated with synthesizing.

Perhaps, Han’s view of source use might be due to different intercultural interpretations of what counts as evidence. The Chinese rhetorical tradition values the use of a famous person’s sayings and classic literacy works, but these are not used as sources in the ways employed in English academic writing. For instance, there is no need for citations when taking something from a famous philosopher like Confucius, as other readers will almost certainly be familiar with the content being used. Thus, Chinese students, such as Han, often “decorate” their Chinese essays with famous quotes and anecdotes from well-known historical figures and classic literary works, and without any concern about following established citation conventions or rules. What Han did and described in the short synthesis paper, for example, inserting or adding the sources, is
very likely to be a direct but miscalculated transfer of Chinese writing practices. In fact, in the mid-course stimulated-recall interview (3/28/2014), Han’s explanation about the similarity between English synthesis writing and Chinese essay writing further supports this argument:

Ruilan: So how is synthesis writing similar to or different from Chinese essay writing?
Han: Synthesis writing is fairly new. In Chinese writing, I feel it might be similar to *yi lun wen* [argumentative writing]. But Chinese argumentative writing does not have a very rigid organizational structure. It is like claim, three warrants and conclusion.

Ruilan: Did you use sources in Chinese argumentative writing?
Han: [Laugh] maybe citing a famous quote, such as Confucius says…

Ruilan: So what role do you think sources play in English synthesis writing?
Han: I guess sources make your paper more convincing because Americans believe facts. You need to add explanations and research into your paper.

Since Han did not skillfully integrate the sources in his short synthesis paper, I tried to understand his difficulties or struggles in composing the first synthesis paper from a learning perspective. Toward the end of the mid-course stimulated-recall interview, I asked Han what was the most difficult part of writing the short synthesis. He indicated that “keeping the paper well organized and sticking to the thesis points” was quite difficult. In the short synthesis instructional unit, Ms. Perry first asked the students to explore the academic database and select their sources, and later introduced the rhetorical aspects of synthesis writing, with a strong emphasis on organizational structure. However, Han seemed to struggle with organization, and he wished that “the teacher first gave us the overall organizational structure, rather than asking us to find sources” (Mid-course stimulated-recall interview, 3/28/2014). The second difficulty that Han reported was “finding the proper quotes.” He said:

It is very hard to find appropriate sources. When I insert the quote into my paper,
it might not fit into the context. I also think that the teacher asked us to find sources too early in the writing process. She asked us to find sources first and then compose the paper. It is too complicated to find sources first and then compose the paper because I have to follow the source ideas. Obviously, it is much easier to write according to my own ideas. So I think it should be after I form my own opinions and then find appropriate sources. (Mid-course stimulated-recall interview, 3/28/2014)

Again, the above interview data revealed that Han misrepresented the reading-to-write processes of synthesizing. In essence, it was very likely due to his misunderstanding of synthesis writing and interference from his L1 writing background. Han did not quite grasp the nature of source-based writing and thus operated from a fragmented task representation for it. When he elaborated his ongoing understanding of synthesis after completing the short synthesis paper, his explanations of synthesis remained on the surface level. For example, he stated that, “I think synthesis is asking research question and answering your question… The entire synthesis paper should focus on the research topic” (Mid-course stimulated-recall interview, 3/28/2014). Nowhere did he mention the importance of source use or the integration of sources ideas. To put it in another way, Han had not distinguished synthesizing from opinion-based writing yet; as he put, “Synthesis paper is to persuade or make your readers believe your answers. After you explain and discuss your topic, you can give your own opinion” (Mid-course stimulated-recall interview, 3/28/2014).

In brief, at the mid-course stage, Han was still learning the organizational structure of a synthesis paper (e.g., “keeping the paper well organized and sticking to the thesis points”); he recognized the difficulty of selecting appropriate sources but did not tackle the key component of synthesizing—integration of sources. His partial engagement
in writing the short synthesis was partly due to his misunderstanding, or inadequate task representation, of synthesis and misconception of the reading-to-write processes. In addition, he might have been influenced by the Chinese theoretical traditions he had grown up with. As a result of these circumstances, he was in a difficult position with respect to transfer of knowledge and skills from the short synthesis paper to the long synthesis paper. Without a firmly established schema for synthesis paper writing to work with, his transfer potential could be considered low. Given that Ms. Perry saw transfer from one assignment to the next as an important part of the 1902 course, as shown in Chapter 4, this was a potentially serious situation for him.

**Learning to Write a Long Synthesis Paper**

When it came to the long synthesis paper, I took the same approach to tracking down Han’s pre-writing and multi-drafting processes. Since Han did not fully understand the reading and writing relationships when composing the short synthesis, I tried to observe his progress in this instructional unit as he transitioned to the long synthesis paper. As it turned out, he did not pay much attention to the reading component of the long synthesis paper, either, thus eroding possibilities for a better construction of the reading-writing relationships that drive synthesizing. Among several pre-writing activities, particularly the annotated references and the outline, Han did not carefully select the sources nor read them purposefully to compose the long synthesis paper. Similar to his outline worksheet for the short synthesis, Han only came up with the research question and the thesis statement without outlining his plan for source use in the body paragraphs. In order to measure the accuracy my observations, I asked Han to retell
his initial writing processes in the post-course stimulated-recall interview (4/25/2014):

Ruilan: How did you get started? What was the first thing you do? Did you look for sources and read them?
Han: First, I think about my thesis statement.
Ruilan: Did you come up with your answers to the question on your own or did you read the sources to come up with your thesis statement?
Han: It is my own answers to the question.

What Han described in the above protocol segment was the same as what he did in the short synthesis task: writing based on his opinions rather than writing from sources.

Furthermore, in the end-of-semester survey, Han rated most of the pre-writing activities (e.g., proposal and outline) as “slightly useful” and considered the annotated reference as “not useful” at all. The survey results corroborated the interview data, indicating that until the instructional unit of the long synthesis paper, Han still had not developed a thorough understanding of the reading-to-write processes in synthesizing. He stated that he only read the course-required essays but did not carefully read the sources chosen from the database. His reading approach was rather unproductive, in that he simply skimmed the texts and found interesting parts to read. On the one hand, his inability to work with sources effectively was likely due to his laziness in reading the source texts; on the other hand, it may also have been due to his problems in handling the lengthy and complicated academic texts, especially as someone who was a relatively new learner of academic English.

To continue exploring Han’s understanding of source use, both the written products and writing processes of the synthesis papers were analyzed. Table 7.2 briefly illustrates the overall quality of Han’s synthesis papers, with regard to organization, selection and integration of sources, and strategies of source use. What emerged was that,
in comparison with the short synthesis task, because the long synthesis paper required at least five sources, selecting appropriate sources became even more challenging for Han. As a result, he selected inappropriate sources. Meanwhile, the small number of source integrations shown in the table demonstrated that Han did not make much progress in establishing intertextual and intratextual links. Regarding his strategies of source use, he seemed to reply heavily on direct quotation, as seen in Table 7.2 and shown in the excerpt from his long synthesis paper in Table 7.3 below.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Short synthesis</th>
<th>Long synthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Selection of sources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of sources</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Appropriateness</td>
<td>Partially</td>
<td>Problematic</td>
</tr>
<tr>
<td><strong>Integration of sources</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of intertextual</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of intratextual</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of writer-source</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>integration</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Strategies of source use</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Summary</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Paraphrase</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Quote</td>
<td>2</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 7.2: Textual Analyses of Han’s Short and Long Synthesis Papers

Table 7.3 below provides a representative sample of Han’s long synthesis paper in the first column, and in the second column, his comments about the composing processes from the post-course stimulated-recall interview (4/25/2014). To further examine Han’s
use of sources, I investigated his strategies for and decisions about source use in the long synthesis paper.

<table>
<thead>
<tr>
<th>Excerpt of Han’s long synthesis paper (^a)</th>
<th>Comments on his paper</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. One of the negative effects is that new technology opens more chances for our privacy to be stolen. 2. Now our communication and working devices are mainly electronic, which have access to the Internet. Hayes (2013) claims that, “To say that the Internet has become a staple of modern life is an understatement” (p. 349). When people download programs from some unknown websites or open some websites by accident, there is always a risk that they download virus to our computers. With these viruses, hackers can see their privacy just like checking their own computers. There is less risk for the thief to steal things on the Internet than steal physical money because the thief doesn’t even need to leave his own house. By the time people enjoy their computers, they already put their privacy in danger. 3. Also, it is a common fact that all the record on people’s mobile phones can be traced. It means when people send text messages, the phone company can see the content easily. The police uses it a lot to find criminals but if someone uses it for bad reasons, it will be dangerous. People rely on texting to communicate too much now. Text messages sometimes contain really important information like password. When people want to deliver important messages, they should believe in face-to-face communication. 4. On the other hand, the new trend of Internet technology is the “Cloud” which can let people store information on the Internet and people can share or use them everywhere. People don’t have to bring their own devices anymore. 5. David Gelernter (2012) asked the question, “Will you store your personal information on your own personal machines, or on nameless servers far away in the cloud, or both?” (p. 99) 6. It is a practical question now because the “Cloud” is taking over all our information. It seems really handy but what if someone hacked into the cloud? Does it mean that now he has the access of the information of the whole world? It is terrifying just to think about it. Also, what about the companies that run the “cloud”? Do they have the right to see all these information they have? People will never know if their privacy already went public, or some people doesn’t even care.</td>
<td></td>
</tr>
<tr>
<td>1. This is my topic sentence. 2. This part is the discussion about the Internet. 3. This part is the discussion about mobile phone. 4. Here I follow the teacher’s suggestion to begin a new paragraph to discuss and define the “Cloud.” 5. Here I quote the source because the author asks the exact question that I want to ask. 6. Because I don’t have enough evidences to support my argument, I just ask these hypothetical questions to make the reader think about the safety of the Cloud.</td>
<td></td>
</tr>
</tbody>
</table>

\(^a\) Superscript numbers marks individual units of analysis.

Table 7.3: Illustration of Han’s Stimulated-recall Interview about his Long Synthesis
As Table 7.3 illustrates, Han used one source in each of the above two paragraphs (e.g., Hayes and Gelernter). Similar to his strategies for source use in the short synthesis task, he used two stand-alone quotes, without detailed explanations of the quotes (units 2 & 5). After quoting the first source, he provided a general discussion about the lack of privacy due to the use of the Internet and mobile phone, by saying “it is a common fact” (unit 4) but without connecting to the previous quote. In the second paragraph, although Han justified his decision to quote the texts “because the author asks the exact question that I want to ask” (unit 5), after the quote he did not provide enough evidence to support his argument (unit 6); instead, he “asked these hypothetical questions to make the reader think about the safety of the Cloud.” It seemed that Han had begun to recognize the important role of sources, but he indicated his difficulty in finding proper sources in saying, “I want to use more sources, but it is difficult to find suitable ones.” I continued to elicit his understanding of source use in the post-course stimulated-recall interview (4/25/2014):

**Ruilan:** Until now, what do you think about the use of sources?

**Han:** I think it is very crucial to my paper because without sources, you can’t support your points. But it is quite difficult to look for good sources on the Internet. There are vast amount of sources in the database. It is hard to choose.

**Ruilan:** Do you know some reading strategies that could help you read more efficiently?

**Han:** Usually I search the keyword and skim the text using the keyword. In addition, the online database contains different types of information … so it is very difficult to navigate.

The above interview segment reveals that Han started to recognize the source-based
nature of synthesis writing, but struggled with both selecting appropriate sources and integrating sources together. Developmentally speaking, he was making progress, but his readiness to form a workable task representation for synthesizing had not yet emerged. To a certain extent, Han’s difficulties in composing synthesis papers were not merely a writing problem, but also a reading problem, since synthesizing inherently taps into both the reading and writing processes, with “knowledge transforming” (Bereiter & Scardamalia, 1987) playing the dominant role. For Han, gaining command of the more straightforward “knowledge telling” function was a challenge, so that the movement to knowledge transforming was probably unrealistic for him at that point in his development.

Throughout the background interview and the two stimulated-recall interviews, I tried to track down evidence of possible changes in Han’s understanding of synthesis writing and source use. In the post-course stimulated-recall interview, Han showed a somewhat more developed understanding of synthesis: “Synthesis writing is examining a topic through using sources and your own ideas” (4/25/2014). Even though Han admitted that he did not use the sources well, eventually he realized that sources were very important for synthesis papers, because “First, sources prove your points and make your arguments more convincing. Second, Americans don’t trust just your personal opinions. You need to prove your points from different points of view” (4/25/2014). Furthermore, he made a clear distinction between English synthesis writing and Chinese argumentative writing. He said, “In English writing, Americans write outlines and find out which sources to cite. In Chinese, I just quote, such as Confucius says, or Li Bai says” (Post-
course stimulated-recall interview, 4/25/2014). Eventually, then, Han began assembling a schema for synthesizing.

It was interesting to observe the differences about English synthesis writing and Chinese argumentative writing made by Han. When he distinguished between “Americans” and “I,” Han still used his Chinese way of thinking and literacy practices to appropriate English synthesis writing, just as he indicated in the initial interview: “When I write English essay, I’m still thinking in Chinese” (Background interview, 2/12/2014). His view of English writing might be closely connected to his educational goal, as Han planned to return to China after completing his college study. His main educational goal in the American university was to learn about the advanced communication technologies; thus, his motivation to learn English academic writing was rather instrumental. That is, he did not foresee much use of synthesizing skills in his major academic work at the university, so his investment in the process of learning how to synthesize was low. This helped explain his limited understanding of synthesis and partial engagement in the synthesis writing tasks.

At the end of course, after completing the long synthesis paper, Han ultimately realized the importance of source use in synthesis writing, but he still struggled with selecting appropriate sources and connecting them to one another. That is, while his understanding had improved, his ability to execute the various moves associated with synthesizing still lagged behind. This was most probably because he did not develop competent reading skills and strategies and thus failed to engage in the reading-to-write processes of synthesizing. It appeared that Han also tried to apply his rhetorical
knowledge about Chinese argumentative writing to English synthesis writing. This amounted to a kind of negative transfer that interfered with his ability to synthesize in English. His failure to adapt his prior Chinese literacy practices to accommodate the uniqueness of English synthesis writing relates to recent work on “adaptive transfer” (DePalma & Ringer, 2011) and demonstrates the importance of making productive connections between prior learning in a different context and new learning. In Chapter 8, I will discuss in detail how the theoretical perspective of “adaptive transfer” can help address the L2 writers’ difficulties in learning-to-write a synthesis, such as in the case studies of Han.

**Summary of Han’s Development in Synthesis Writing**

Overall, Han’s story portrayed a newly arrived international student’s learning trajectory of an important source-based writing task, synthesizing, which represented a brand new academic literacy act for him. Han did not successfully develop a comprehensive understanding, or task representation, of synthesis writing in English. In particular, he eventually grasped the fundamental organizational structure of a synthesis, but did not acquire command of the complex acts of selecting appropriate sources and integrating multiple sources. His actual performances in the synthesis tasks revealed that he held a narrow view of source use. He considered sources as only an auxiliary component to his synthesis papers, which could be “added” or “inserted” toward the end for the sole purpose of meeting assignment requirements. For him, using sources simply meant properly documenting the sources according to the correct citation format, with no regard to meaningful rhetorical use of the sources to develop his ideas.
In addition to his limited understanding of synthesis and source use, Han also lacked a systematic understanding of the synergistic relationships between reading (comprehending) the source texts and writing (composing) the synthesis papers. His unsuccessful learning experience with synthesis writing was largely due to his ignorance of the reading-to-write processes. Without a thorough comprehension of the source texts, Han failed to transform the sources and construct new meanings in his synthesis papers. Moreover, deeply influenced by the Chinese rhetorical traditions, Han falsely transferred his Chinese writing practices to performing English synthesis writing, without adapting his prior knowledge to cope with the considerably different textual world of English source-based writing. In all of these difficulties, he failed to take advantage of the “near transfer” opportunities that existed in the 1902 course, since the second (long) synthesis paper built on knowledge and skills acquired a short time earlier while completing the short synthesis paper. In this regard he differed significantly from the two strong writers in the study (Steve and Jane), who had constructed an effective synthesis schema.
Chen: “Synthesis is just like a Chinese argumentative paper.”

The Initial Encounter with Source-based Writing

Chen was a male transfer student from China who majored in Business and had studied in a Chinese university for two years before coming to the United States. When I met him, he had studied in the American university for five months. He was very outgoing and friendly in and outside class. Since a lot of the Asian students were usually very quiet in class, Chen seemed to be the person who broke the silence in class; for example, he would ask the teacher to repeat the assignment requirement or request extra time to complete the task. Soon, through the classroom observations, I noticed that Chen sometimes got lost during class, and he would speak Chinese to ask for help or clarify his understanding with his Chinese classmates.

From the background interview (2/14/2014), I learned about Chen’s literacy experiences in Chinese and his prior English language instruction. Chen reported that in his high school Chinese language arts class, the writing teacher often provided model papers and example sentences for him to imitate when writing Chinese essays. In his high school English class, he also memorized a series of well-written sentences and used templates to write English essays. When he prepared to take the TOEFL test in his freshman year at the Chinese university, he received a similar type of writing instruction that relied heavily on the template approach that encouraged students to imitate the patterns reflected in the model essays. He often memorized writing templates in order to write a five-paragraph essay to cope with the demands of the test. He also remembered a series of examples, such as famous persons’ quotes and anecdotes, to use in his essay.
When he began his college life in the United State, Chen also took the first-sequenced academic writing course (1901) in his first semester in the current university. Based on his writing placement score, Chen was placed into an intensive section, in which he needed to receive an extra 2-hour tutoring session every week due to a low score. In general, Chen found the first-sequenced writing course (1901) helpful, as it introduced him to the basic skills of English essay writing. At the beginning of the 1902 course, Ms. Perry reviewed some basic source-based writing skills, including summarizing, paraphrasing and responding, before introducing the short synthesis paper. In fact, Chen did not quite understand the purposes of the summary and response task and the topic proposal. Because he was accustomed to the structural and formulaic writing approach, Chen expected Ms. Perry to provide examples for him to imitate when writing the topic proposal. However, Ms. Perry assigned the topic proposal assignment as a way to encourage the students to explore interesting topics and look for relevant sources. Chen said that, “I really hope that the teacher could give us an example because without an example I don’t know what a proposal looks like” (Background interview, 2/14/2014). When I asked Chen his initial understanding of synthesis, he replied, “I guess synthesis is a research paper in which I have to do some kinds of research” (Background interview, 2/14/2014).

In addition, Chen admitted that as a business major undergraduate student, he did not really enjoy writing and language arts subject. He explained that in his disciplinary study, he enjoyed doing calculations and solving problems. For him, writing seemed to be “tedious” and “not useful.” Thus, it is not surprising to see that he rated his motivation to
learn English academic writing as “low.”

Learning to Write a Short Synthesis Paper

When he began to write the short synthesis paper, Chen chose the topic “How the development of communication technology affects families’ communication and relationship.” Since Ms. Perry took a process-oriented teaching approach and spent a considerable amount of time asking the students to explore sources in the pre-writing stage, for L2 students like Chen who were not used to process-oriented writing, it was difficult to understand the purposes of the pre-writing tasks. The analysis of Chen’s outline worksheet showed that he only listed one source at the end; the major source of ideas was his own experiences. He was totally confused about the structure of a synthesis paper and did not form his thesis points. During the composing processes of the short synthesis, Chen’s tutorial with the teacher played a crucial role in building his understanding, or task representation, of a synthesis paper. I present three parts of Chen’s tutorial interactions to demonstrate how he developed his knowledge about synthesis writing. I have underlined the important questions and comments made by Ms. Perry and highlighted Chen’s responses in bold.

Transcript # 1 of Chen’s short synthesis paper tutorial (3/6/2014)

Ms. Perry: First before we start, what do you worry about your paper? What do you think you need to improve? What questions do you have before we start?
Chen: I think I don’t use enough sources. I just used a little sources, most of it is my personal opinion.
Ms. Perry: Yeah, I noticed that. You are right. You have one source way at the bottom, at the end. Can you tell me what your thesis is? What is your thesis?
Chen: Thesis? It is like the title. I think there are two parts. First is the development of communication technology influences families’ relationship; the second part is communication. In communication, I have another two parts. First is technology develops more methods to use; it also make it more convenient. Second, because we have more methods and it is more convenient, people’s relationship will become better. I think this is the relationship between these two parts.

Ms. Perry: OK, they are definitely related to each other. Where is your thesis in your introduction?

Chen: [Laugh]

Ms. Perry: [Laugh] You need to put it here at the end of the introduction. So you have some background information. That’s good. And then in a sentence, not like a title, but in an actual sentence, put your thesis there at the end and state these two things. You can even state how they are related, OK?

Chen: OK, I understand.

In Transcript # 1, Ms. Perry helped Chen form his thesis statement. Chen was aware of the major problem in his draft, as he said “I don’t use enough sources… most of it is my personal opinion.” At the very beginning of the tutorial, Ms. Perry asked Chen to state his thesis, which apparently was not in his first draft. Then Ms. Perry asked Chen to reorganize his ideas and put them into a thesis statement at the end of his introduction paragraph. In the second part of the tutorial, Ms. Perry addressed the major problem in Chen’s short synthesis—lack of source use:

Transcript # 2 of Chen’s short synthesis paper tutorial (3/6/2014)

Ms. Perry: Actually I think you have a lot of really good ideas but I’m worried because, as you suggested you have only one source and it’s way at the end. So take that source and put it up here at the beginning and use it to develop your ideas, OK? So is that source talking about relationship?

Chen: Yeah.
Ms. Perry: So in that first paragraph, you can have the quote, which talks about the importance of relationship. You can show the truth of that quote with your own story when you were away from your parents you felt really sad and the letters were not sufficient. And then you can compare it now. Now you can talk to your parents all the time everyday. Then that’s proving your point. Look, technology is good for relationships. So you see you use your two stories together to prove this information that the author says. Does that make sense?

Chen: Yeah.

Ms. Perry: So you can say all that in one or two paragraphs.

Chen: Does it need to be one or two paragraphs?

Ms. Perry: Yeah, you can put it in one paragraph or two paragraphs. You can tell one story in one paragraph and another story in another paragraph. It’s up to you how to organize it. But when I was reading it, I feel like you say the same thing again and again. So it’s just one long story about in the past it was like this and now it is like this. But if you make it short and concise, you get to the point and move to the next topic.

Chen: OK.

……

Ms. Perry: But basically the order should be clear. In your first draft, the order is not clear because you don’t have a thesis. So I didn’t know what to look for. And then I didn’t see a topic sentence so I didn’t know what this paragraph was about as I was reading it. It wasn’t clear.

Chen: OK.

In Transcript # 2, Ms. Perry raised her main concern about Chen’s draft—he did not use enough sources. Since Chen included a fairly long personal story, Ms. Perry suggested that he discuss the source idea first and then use his example to support the source idea. Ms. Perry also suggested that he make his personal examples succinct. Essentially, Ms. Perry was helping Chen establish writer-source link, which was probably a good starting point for Chen to understand the integration of sources and ideas. Chen expected Ms. Perry to give him explicit instruction on how to organize this paragraph (“Does it need to be one or two paragraphs?”), which was a fairly common expectation among Chinese students. However, Ms. Perry emphasized that the organizational structure needed to be
clear and in good order, but she left it to Chen to decide how he wanted to organize his paper. Overall, it seemed that Chen was still confused about the organization. In order to get an idea of what a synthesis paper looks like, he asked Ms. Perry for an example paper (Appendix K), as illustrated in the following interactions:

Transcript #3 of Chen’s short synthesis paper tutorial (3/6/2014)

Chen: OK, another question: Can you give us... you know you gave us two example papers in class, where can I find it? I want to read them again.

Ms. Perry: Oh, I can show you them and we can look at them together.

Chen: Ok, I’m just confused about the structure.

Ms. Perry: Ok, here is an example. And you see the introduction is about half a page. So give the hook—a cute little story; give the background—the author is saying what he observed; here at the end he states his thesis. So hook, background and thesis.

Chen: [Chen writes them down on his notebook] Hook, background, thesis.

Ms. Perry: So Now you see, the author wants to talk about “daily habits, fashion consciousness, and esthetic view.” So “daily habits” is the first topic. You see he gives the topic sentence, which is, “The habit and custom differences in students’ daily life may be related to their dressing styles.” And he mentioned this in the topic sentence, so I know what this paragraph is about. He even mentions it in the concluding sentence. So in the concluding sentence, he also says, “The habits and life background affect a lot on the dressing style of college students.” So he says it three different ways, actually four ways. The first ways—thesis; the second way—topic sentence; the third way—the concluding sentence, and lastly—the conclusion paragraph.

Chen: OK.

Ms. Perry: Inside this body paragraphs, he starts off with a paraphrase and then he is explaining what that paraphrase means. And he even has another paraphrase at the end. So he is showing that two different authors have the similar idea. In the third paragraph, he starts off with his own observation and then he says what I noticed is similar to what the author says. So he is comparing his own observation with the source, which is what you can do. Your author suggests that relationships are important. You can say in your paper, “Just as what the author said, I see it in my own life. I see how I really desire to communicate daily with my parents.” Do you see how you can put all things together?
Chen: Yeah, yeah. **So the structure is the introduction, the body, and the conclusion. Every body paragraph, you need the topic sentence and concluding sentence.**

Ms. Perry: Yeah. You can also use transition and leading sentences. But you do need to use the sources. You need a total of four citations, two from our in-class reading and two from the online database… And talk about like **when you make a quote, talk about it more than just one brief sentence.** Say this author really makes me think about my relationship; make me view technology in a different way, you know.

In Transcript # 3, Chen admitted that he was still “confused about the structure” at the beginning. The questions and comments being underlined reveal that Ms. Perry first illustrated the basic segments of the introduction using the model paper, and Chen recorded “hook, background and thesis” in his notes. Next, Ms. Perry demonstrated the connections between thesis statement and topic sentences, and specified where to restate his thesis point. Similarly to the discussion about thesis statement in Transcript # 1, Ms. Perry worked from her schema, which specified that a synthesis paper should be structured into several distinctive segments—each with particular rhetorical purpose and discourse features. When she read the students’ papers, she expected to see these specific segments, because they not only provided a clear discourse structure, but also conveyed a certain rhetorical purpose. Furthermore, Ms. Perry continued talking about how to establish intertextual dynamics in the body paragraph. Again she showed that Chen could connect his personal observation to the source. Finally, Ms. Perry reemphasized that, “you do need to use the sources” and pushed Chen to rethink about what the source information revealed.

In contrast, Chen’s reactions highlighted in bold revealed that his main focus was solely on the basic organization of his paper. For example, Chen rephrased Ms. Perry’s
comments as “So the structure is the introduction, the body, and the conclusion. Every body paragraph, you need the topic sentence and concluding sentence.” Here, it should be noted that learning the organization of a synthesis paper is important, as organizing is one of the three operations in the discourse synthesis model. However, from Ms. Perry’s perspective, only acquiring the organizational structure was not sufficient; rather, source use and integration of ideas were at the heart of synthesizing. Nonetheless, from Chen’s point of view, learning the structure seemed to be his only focus. Developmentally speaking, this seemed to be all he was capable of conceptualizing about synthesizing, as he was unable to form a viable schema or task representation for synthesis writing. We see evidence of this in Table 7.4 below.
Excerpt of Chen’s short synthesis paper

1 From my own experience, we can see the development of communication technology improve the relationship between children and parents a lot. 2 When I was a little boy, I had to live with my aunt a few days. It was my first time to leave my parents. I missed them so much. But in those years China, it was very expensive to make a phone call. So, I could only call my parents once a week and write letters to them at other time. We could not talk with each other no matter when we want. I felt alone and even doubted if they still love me. One day, I won a game with my companies, even though it is a stupid children game. I was so excited and wrote a letter to tell my parents. Unfortunately, I received their letters a week later. They said they were proud of me and I was best, but I would have no that happy feeling any more. 3 In the article “Communication technology in the home environment of four-year-old children” (2013) written by Lepicnik-Vodopivec J and Samec P, we can see “the timeliness of information is very important to built a good family relationship, especially, for young children. If these young kids cannot get the reply from their parents in time, it will cause so many negative affect.” (p. 2) 4 If some messages cannot be replied on time, it will make no sense. The timeliness of information is very important. So, in the past, if children could not contact to their parents, it caused a bad family relationship.

Comments on his paper

1 This is the topic sentence.

2 This is an example of my experience in the past.

3 Here I cite a source to emphasize that the timeliness of information is important for relationships between children and parents. I think I used this source pretty well because this source supports my example.

4 This is a summary of the point that I just made.

*a Superscript numbers mark individual units of analysis.

Table 7.4: Illustration of Chen’s Stimulated-recall Interview about his Short Synthesis

As a summation of Chen’s take-away from the tutorial, Table 7.4 provides an excerpt from Chen’s final draft of the short synthesis in the first column, and his retrospective comments about his paper in the second column. On the one hand, Chen did try to emulate the structure of the model paper by, for instance, stating the topic sentence in the beginning (unit 1), connecting his personal example to the quotation of the source (units 2 & 3), and restating his thesis point at the end (unit 4). On the other hand, Chen did not fully understand the purposes of source use, as he dropped the quote after talking
about his own story. Chen’s short synthesis paper lacked the key rhetorical moves of synthesizing, such as forwarding the ideas of the sources, countering the source by giving a different perspective, and connecting different sources (Graff, Birkenstein & Durst, 2009; Harris, 2006). These rhetorical moves are closely connected to the rhetorical reading strategies that were absent in Chen’s reading of the model paper and his reactions to Ms. Perry’s comments during the tutorial interactions. In other words, without effective reading of the model paper, Chen had no schema to transfer to the writing of his own paper.

After finishing the short synthesis paper, Chen summarized his understanding of synthesis, which was, “In order to persuade someone or to state your opinion, you write a paper. Such a paper is called synthesis paper” (Mid-course stimulated-recall interview, 3/13/2014). Especially after reading the model paper, Chen concluded that the structure of a synthesis paper was similar to a Chinese argumentative paper and transferred that schema to his English synthesis writing, thereby compounding his problems in synthesizing. As demonstrated in the textual analyses in Table 7.4, Chen quickly grasped the basic organization of a synthesis, but, influenced by Chinese writing practices, ignored the function of sources. He reported that:

It [synthesis writing] is very much like yi lun wen [Chinese argumentative writing]. So the claim is my opinion; there are three sub-points to support my claim… If the teacher had told us that synthesis paper is an argumentative paper, I can find my Chinese argumentative essays and translate them into English. (Mid-course stimulated-recall interview, 3/13/2014)

He continued to explain that “looking for sources and putting them in the right place” was the most difficult part in composing the short synthesis. Interestingly, Chen seemed
to hold a very different view of the function of sources. In his opinion, because the source text authors wrote their papers to fulfill their own purposes, he could only cite a few sentences from the sources that may relate to his topic. He believed that “the possibility of finding an exact sentence in other’s article that fits into his paper is very low” and he preferred to use some well-known examples which are, in his view, “more persuasive, easier to understand, and also don’t need to prove” (Mid-course stimulated-recall interview, 3/13/2014). Here, it is important to remember that in their first language literacy education, Chinese students are not taught to work with sources; rather, they use examples from well-known people and their personal experiences to compose Chinese argumentative papers. Chen reported that:

I think it is very easy to write papers in my native language Chinese. In Chinese, there are a lot of famous examples that don’t need to prove; everybody knows these examples, such as the great poet Li Bai and the historian Si Maqian. But I can’t use these examples in English. Every time I use an example I need to list the author. (Mid-course stimulated-recall interview, 3/13/2014)

Thus, it seemed that Chen was aware of the differences between Chinese argumentative writing and synthesis writing, but he failed to adapt his rhetorical knowledge about the use of well-known examples in Chinese to English synthesis writing. More importantly, it was very difficult for him to move beyond his comfort zone of opinion-based writing, as he argued that, “In the entire paper, you are expressing your own opinion. That’s why using personal examples is more convincing” (Mid-course stimulated-recall interview, 3/13/2014). For him, source use was only part of the assignment requirement; as he explained, “If I don’t include sources, I won’t get a good grade so I just put some sources in my paper” (Mid-course stimulated-recall interview, 3/13/2014).
Learning to Write a Long Synthesis Paper

After reading the model paper, which was about “American and Chinese students’ dressing styles” (Appendix K), Chen thought that the student writer chose a topic that was easy to write about. As he explained, “it is very easy to write a comparison paper than other types of paper, such as cause and effect. You can just talk about A and B, so the comparison or contrast is quite obvious” (Mid-course stimulated-recall interview, 3/13/2014). For his long synthesis paper, he decided to compare “the differences between Chinese and American food culture.” Similar to the pre-writing tasks for the short synthesis, Chen did not attach much value to the proposal and annotated references tasks for the long synthesis paper. However, he began to realize the usefulness of the outline, which listed the basic segments of the introduction, body paragraphs and conclusion. Deeply influenced by his Chinese writing practices, Chen admitted that, “I need to look at an example first and then write my own paper,” and he argued that model paper is “the most effective” learning approach:

I think using model essay is the most effective way. I wish the teacher first gave us the example paper and guided us to write the introduction, body and conclusion. But at the beginning, she asked us to write a proposal. I don’t think that was useful. The outline was more useful than the proposal. But I still think that the teacher could show us the example and provide the structure at the beginning–introduction, three body paragraphs and conclusion. (Post-course stimulated-recall interview, 4/20/2014)

Chen’s belief that using a model paper is the “most effective way” derived directly from the writing instruction provided in his high school language arts class, in which he often read model papers to learn to write. Thus, Chen applied the same approach to compose the long synthesis paper. For example, Figure 7.1 demonstrates how he imitated the
model paper to write his thesis statement for the long synthesis paper.

In comparison, Chen wrote his thesis statement in exact the same way as that in the model paper (Appendix K). So, the model paper provided a concrete example for him to construct the thesis statement; on the other hand, though, it seemed that the model paper also limited his writing and thinking. Here, it is worthwhile to reconsider Ms. Perry’s concern about the use of model papers. In the mid-course interview with Ms. Perry discussed in Chapter 4, she indicated that, “I don’t know if giving these freshmen a model essay, it would help close their minds instead of open their minds. You know when you don’t give them a model, they kind of do what is inside of them, what they want to do. But when you give them a model, they feel that they have to do it this way” (4/4/2014, emphasis in original). In the case of Chen, Ms. Perry’s concern was validated,
because Chen used the model paper mechanically rather than creatively. As a result, he failed to form a meaningful schema from which to operate as he composed his paper.

The textual analyses of Chen’s long synthesis paper, as compared to the short synthesis, further revealed that he did not make much progress in synthesizing by the end of the course. Table 7.5 demonstrates that because the long synthesis required more sources, selecting appropriate sources became more challenging for him. In terms of source integration, Chen did not successfully connect the sources, as illustrated by the limited number of source integrations in his work. Regarding his strategies for source use, Chen tended to heavily rely on copying quotes from the source texts rather than summarizing and paraphrasing. The comparison suggests that Chen did not fully understand the important role of sources in composing a synthesis and lacked a clear conceptual understanding of synthesizing from the reading and writing continua.

<table>
<thead>
<tr>
<th>Organization</th>
<th>Short synthesis</th>
<th>Effect</th>
<th>Long synthesis</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of sources</td>
<td>Number of sources</td>
<td>2</td>
<td>4</td>
<td>Problematic</td>
</tr>
<tr>
<td></td>
<td>Appropriateness</td>
<td>Problematic</td>
<td></td>
<td>Problematic</td>
</tr>
<tr>
<td>Integration of sources</td>
<td>Number of intertextual integration</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>Number of intratextual integration</td>
<td>0</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Number of writer-source integration</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Strategies of source use</td>
<td>Summary</td>
<td>1</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Paraphrase</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Quote</td>
<td>3</td>
<td>6</td>
<td></td>
</tr>
</tbody>
</table>

Table 7.5: Textual Analyses of Chen’s Short and Long Synthesis Papers
Furthermore, instead of developing a fuller understanding or task representation of source-based writing in the long synthesis task, Chen opted for an easy route (i.e., a shortcut): He composed his long synthesis paper in a Chinese manner and translated his ideas into English. During his translating and composing processes, Chen acknowledged that English source-based writing is more “rigorous” and Chinese argumentative writing is less “strict.” He explained the differences between Chinese argumentative writing and English synthesis writing as follows:

In Chinese argumentative writing, we often use the examples of famous persons, such as Li Bai, Si Maqian and Napoli. In contrast, in English source-based writing, I need to find evidences from academic sources. I think synthesis writing is like changing the anecdotal examples used in Chinese writing into more scientific examples in English. (Post-course stimulated-recall interview, 4/20/2014)

Although Chen noted that Chinese argumentative writing often uses well-known people’s anecdotal stories as examples, whereas English synthesis writing requires citing the actual authors and research, his understanding of source use was limited to rote application of the required citation format. For him, using sources simply meant properly documenting the sources to avoid plagiarism and meeting the teacher’s assignment requirements. Thus, he viewed sources as an auxiliary rather than fundamental component in composing a synthesis. So, even after completing two synthesis papers, his task representation for synthesis writing remained significantly underdeveloped. Nor did he seem interested in developing a meaningful synthesis schema to work with.

At the end of the course, Chen still had not distinguished source-based writing
from opinion-based writing. He summarized his understanding of synthesis as, “it is a paper of my view and my personal opinion. It is just an assignment, a task that I need to complete. The teacher will grade it. I feel it is not very useful” (Post-course stimulated-recall interview, 4/20/2014). An important reason that Chen failed to develop his understanding of synthesis and enrich his writing experience was his low motivation in learning to write from sources. To follow up his response regarding the final understanding of synthesis, I asked him why he considered synthesis writing not very useful, and he replied:

I don’t really enjoy writing, and language arts. I love mathematics and solving problems. I’m not interested in writing. I’m also lazy because writing and revising take a lot of time. It is kind of tedious. In fact, I think I won’t be able to use synthesis writing in my discipline. For example, in my business case study report, we will distribute the workload. I’m better at calculation. The case report is based on the data and calculation, for example what the numbers demonstrate or mean. Report writing is quite structured so I just follow a template. So there was not a strong connection between synthesis writing and report writing. (Post-course stimulated-recall interview, 4/20/2014)

Chen indicated that case report was a common writing task in his discipline, and he viewed synthesis writing as distinctive from report writing, which could be approached by following a writing template. In other words, Chen did not see the immediate connections between synthesizing in this course and writing case study reports in his discipline. This perspective further complicated his prospects for “far transfer” of what he was learning in the 1902 course to his business classes as well as his “near transfer” across the two synthesis papers in the 1902 course, since he envisioned no real benefits in learning how to synthesize. Furthermore, he was genuinely less interested in writing because “writing and revising take a lot of time [and] it is kind of tedious.” Thus, Chen
lacked both intrinsic motivation to learn synthesis writing, which resulted in his limited understanding of synthesis writing and source use.

**Summary of Chen’s Development in Synthesis Writing**

In sum, Chen’s story delineated the a transfer student’s learning experiences of synthesis writing through the lens of someone who seemed to be a confident reader and writer in his native language, Chinese, but failed to acquire the essential academic literacy skill of synthesizing in English source-based writing. Throughout the course, Chen did not develop a comprehensive understanding or task representation of synthesis. His knowledge of a synthesis paper only stayed at the level of the organizational structure, without deep understanding of the selection and integration of sources. It appeared that he was content to confine himself to this surface level understanding of synthesizing. Although he was able to recognize the differences between Chinese argumentative writing and English synthesis writing, he was still restricted to his Chinese mindset. He considered sources in synthesis papers equivalent to the well-known examples in Chinese argumentative writing, but did not recognize the uniqueness of source use in English.

In addition to his partial understanding of synthesis and source use, Chen also lacked a clear conceptual understanding of synthesizing from the reading-writing connections perspective. Because he did not attach value to exploring source ideas in the reading continuum, he did not successfully synthesize different source ideas in the reading-to-write processes, except for making sporadic connections between his personal examples and the sources. Chen’s failure in learning to write from source was largely due
to his low motivation to acquire the new genre of synthesis writing. Since he did not perceive the immediate connection between synthesis writing and report writing that he commonly encountered in his discipline, he did not value synthesizing skills and failed to develop an epistemic understanding of source-based writing.
The Characteristics of Less-Successful Synthesis Writing of the Two Weak Writers

Comparing the two weak writers’ learning trajectories of synthesis writing, several similarities and differences between their experiences, strategies and approaches have been observed. Their stories reveal some characteristics of less-successful synthesis writing. To align with the good characteristics of the two strong writers’ (Jane and Steve’s) synthesis writing, below, I discuss four major characteristics of less-successful synthesis writing and highlight the two weak writers’ (Han and Chen) shared and varied strategies and approaches to cope with this complex literacy task.

Task Representation of Synthesis

Guided by Spivey’s (1990, 1997) constructivist model of discourse synthesis—organizing, selecting and connecting in both the comprehending and composing processes—the above analyses revealed that Han and Chen developed only a partial task representation of synthesis by the end of the course. They both grasped the fundamental organizational structure of a synthesis paper, but failed to engage in the complex intertextual dynamics of source selection and integration. Table 7.6 below provides a quick overview of their task representation of synthesis in progress.

In the short synthesis unit, both Han and Chen struggled with getting their papers organized and stating their thesis points. They found selecting appropriate sources difficult and thus did not carefully select their sources, not to mention pursue integration of source ideas. Their short synthesis papers were mainly based on either their personal examples or common knowledge, instead of the source texts. They both viewed synthesis writing as opinion-based, without an understanding the important role of sources.
In the long synthesis unit, both writers did not make significant progress in the synthesis writing task. However, there were subtle differences in their understanding of synthesis. Han somewhat developed his understanding of synthesis. Even though he still followed his opinion-based writing routine, eventually he realized the crucial role of sources in synthesizing. On the other hand, once Chen grasped the organization of a synthesis paper, he did not make effort to develop his understanding of synthesis. Although he recognized the differences between Chinese argumentative writing and English synthesis writing, he did not fully understand the unique features of source use in English synthesis writing. The differences between these two weak writers are portrayed in Table 7.6:

<table>
<thead>
<tr>
<th></th>
<th>Han</th>
<th>Chen</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Initial understanding of synthesis</strong></td>
<td>Synthesis is like a discussion or explanation about a certain topic. It’s like research report.</td>
<td>Synthesis is a research paper in which I have to do some kinds of research.</td>
</tr>
<tr>
<td><strong>Ongoing representation of the short synthesis task</strong></td>
<td>Synthesis paper is to persuade or make your readers believe your answers. After you explain and discuss your topic, you can give your own opinion. Keeping the paper well organized and sticking to the thesis points, and finding the proper quotes are challenging.</td>
<td>In order to persuade someone, you state your opinion using your own examples. Such a paper is called synthesis paper. Looking for sources and putting them in the right place are difficult.</td>
</tr>
<tr>
<td><strong>Final representation of the long synthesis task</strong></td>
<td>It is like researching or examining a topic. Sources are very important for synthesis paper. Synthesis writing is examining a topic through using sources and your own ideas.</td>
<td>Synthesis is a paper of my view and my personal opinion. It is just an assignment, a task that I need to complete. The teacher will grade it. I feel it is not very useful.</td>
</tr>
</tbody>
</table>

Table 7.6: Comparison of Han and Chen’s Representations of Synthesis Tasks
Source Use in Synthesis Writing

In tandem with their limited understanding of synthesis, Han and Chen also held a narrow view of source use in synthesis writing. Han thought that sources were only a small part of his synthesis paper; thus, they could be “inserted” or “added” at the end. Chen also considered sources a trivial component of synthesis writing; rather, he preferred to use well-known examples which were, in his view, “more persuasive, easier to understand, and also don’t need to prove” (Mid-course stimulated-recall interview, 3/13/2014). For both students, source use meant correctly documenting the sources according to the citation format and meeting the assignment requirements set by the teacher. It was these features that were found in their synthesis papers, which lacked evidence of meaningful source text use.

Approaches to the Reading and Writing Activities Related to Synthesis Writing

The third less-successful feature of the two weak writers’ synthesis writing is their misunderstanding of the reading-to-write processes. Both Han and Chen found reading the sources time consuming and less useful in the pre-writing stage. Han completely ignored the reading component of synthesizing and went directly to composing his paper based on his personal opinion. He even thought that reading sources “interrupted” his writing. In Chen’s case, he also did not pay attention to reading sources, but he did attach great value to reading the model paper. However, he mainly focused on the content and structure of the model paper, rather than performing rhetorical reading (Haas & Flower, 1988). In fact, both Han and Chen acknowledged the complex relationships between reading source texts and writing from sources, but due to their laziness and poor reading
strategies, they did not effectively cope with the reading and writing demands of synthesizing.

**Strategies to Appropriate the New Literacy Task of Synthesis Writing**

Lastly, another characteristic of their less-successful experience in learning to write synthesis papers is the two weak writers’ own strategies for performing the new literacy task—synthesis writing. First of all, Both Han and Chen were less motivated to learn synthesis writing because of their future academic goals and disciplinary background. Both writers recognized what they perceived as the similar structure of Chinese argumentative writing and English synthesis writing. In the Chinese rhetorical tradition, students often “decorate” their essays with famous quotes and anecdotes from well-known historical figures and classic literary works, but these are not used as sources in the ways employed in English academic writing. Thus, Han directly transferred the “decoration” approach from Chinese essay writing to English synthesis writing. In other words, Han used his Chinese way of thinking and literacy practices to approach English synthesis writing without any adaptation to the expectations for English writing. As he explained, “When I write English essay, I’m still thinking in Chinese” (Background interview, 2/12/2014).

Quite similarly, using his Chinese rhetorical knowledge, Chen also associated synthesis writing with Chinese argumentative writing and pinpointed the distinctive intercultural interpretations of what counts as evidence—“anecdotal examples in Chinese writing” versus “scientific examples (i.e., academic articles) in English writing” (Post-course stimulated-recall interview, 4/20/2014). Thus, without considering the unique
features of sources in English synthesis writing, he took a “translation” approach to transform his ideas from Chinese to English to compose the long synthesis paper. Both writers seemed to falsely apply their prior rhetorical knowledge to cope with dramatically different textual world of English source-based writing. In the process, they appeared to engage in negative transfer, and this, in turn, seemed to negate their prospects for the kind of successful “near transfer” of synthesis writing knowledge and ability seen in the two strong writers, Steve and Jane. This failure to achieve “near transfer” appears to be one of the markers of weak writers, especially in a course like the 1902 class that generated what James (2009) calls a “transfer climate” which promotes positive transfer from one task to the next. Given the sequential pairing between the short and long synthesis paper assignments in the 1902 course, students were positioned to engage in meaningful “near transfer” of synthesis writing ability, but the weak writers, for reasons articulated in this chapter, were unable to build upon the transfer opportunities available to them.
Chapter 8
Discussion and Conclusion

Introduction

This qualitative study investigated the teaching and learning of synthesis writing in an undergraduate second language (L2) writing classroom. Given that synthesis writing was a relatively new area for the teacher of the writing course I studied and also represented a brand new academic literacy task for the L2 students in the course, I examined the teaching and learning of synthesis from a developmental perspective. I was also motivated to study synthesis writing because it is an important domain of academic writing in English and a topic frequently taught within the English for Academic Purposes (EAP) framework that is commonly employed in L2 writing courses at the college level. I explored the teacher’s progress in learning-to-teach synthesis writing, the students’ developments in learning-to-write synthesis papers, and the interactions between teaching and learning. This chapter brings together the major findings reported in previous chapters and addresses the research questions of this study in order to interpret what the study found and what it contributed to the scholarship concerning synthesis writing.

Through its investigation of synthesis writing, this study also sought to explore L2
reading and writing connections, which are a key aspect of source-based writing tasks like synthesizing.

The research questions this study addressed were grouped in three clusters.

The first cluster focuses on the teacher’s task representation of synthesis and pedagogical approaches to synthesis writing:

1. What is the teacher’s task representation of synthesis in a university L2 academic writing course?
2. How does the teacher’s representation of synthesis tasks change throughout the course?
3. How do the teacher’s task representation of synthesis and the institutional context shape her pedagogical approaches to synthesis writing?

The second cluster deals with the students’ representations of synthesis tasks and their developments of synthesizing abilities:

4. What are the students’ task representations of synthesis?
5. How do the strong and weak writers’ representations of synthesis writing influence their performances in the synthesis tasks?
6. During their reading and writing processes, how do the strong and weak writers develop different abilities in synthesizing?

Finally, the third cluster explores the various factors that contribute to the strong and weak writers’ varied task representations of synthesis and different writing abilities:

7. What individual factors contribute to the strong and weak writers’ different performances in the synthesis tasks?
8. What contextual factors contribute to the strong and weak writers’ diverse learning experiences of synthesis writing? For example, the classroom instruction, the tutorial interaction, the writers’ prior writing knowledge?

9. What do the L2 writers’ diverse learning experiences with synthesis writing reveal about L2 reading and writing connections and L2 writing pedagogy?

In the first part of this chapter, I discuss the findings that relate to the three clusters of research questions while considering how the findings from this research converge with, extend or contradict previous findings about synthesis writing (and source-based writing at large) in the first and second language composition studies. In the latter part of the chapter, I suggest pedagogical implications for L2 writing instruction and then discuss potential future research arising from this study.

**Discussion**

**Focus of Discussion #1: The Teacher and students’ Representations of Synthesis Tasks**

Given that synthesis represented a relatively new writing task for the teacher and a brand new literacy task for the L2 students in the writing course (1902) that served as the study’s research site, one focus of this study was an exploration of their understandings of synthesis writing from a developmental perspective (given the relative newness of synthesis to both teacher and students). Table 8.1 summarizes both the teacher (Ms. Perry) and the four focal student participants’ initial, ongoing and final understandings of synthesis in the beginning, middle, and end of the course. The four focal students were Steve and Jane (strong writers) as well as Han and Chen (weak
writers), all of whom came from China.

<table>
<thead>
<tr>
<th>Teaching component</th>
<th>Initial encounter</th>
<th>Short synthesis</th>
<th>Long synthesis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ms. Perry</td>
<td>-Viewed synthesis as a general research paper</td>
<td>-Introduced selection of sources</td>
<td>-Emphasized the selection and integration of sources and creation of new ideas</td>
</tr>
<tr>
<td>Learning component</td>
<td>Jane</td>
<td>-Acquired the organization</td>
<td>-Focused on the integration of sources and creation of new ideas</td>
</tr>
<tr>
<td>(Strong writers)</td>
<td>Steve</td>
<td>-Viewed synthesis similar to summary and response</td>
<td>-Acquired the organization -Noticed the importance of selecting appropriate source and source integration</td>
</tr>
<tr>
<td></td>
<td>Han</td>
<td>-Viewed synthesis similar to a research report</td>
<td>-Viewed synthesis as a opinion-based essay -Focused on the organization</td>
</tr>
<tr>
<td>(Weak writers)</td>
<td>Chen</td>
<td>-Viewed synthesis as a research paper</td>
<td>-Recognized the importance of source use, but failed to skillfully integrate sources</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Viewed synthesis as a paper of personal opinion -Focused on the organization</td>
<td>-Focused on the organization, without acknowledging the importance of source selection and integration</td>
</tr>
</tbody>
</table>

Table 8.1: Summary of the Teacher and Students’ Representations of Synthesis Tasks

As pointed out in Chapter 2, the L2 writing field lacks a theoretical model of synthesis; hence, the well-known constructivist model of discourse synthesis (Spivey,
1984, 1990, 1991, 1997) in the L1 domain guided the investigation of this study. Spivey (1984) described discourse synthesis as “combining information from various textual sources to form new, unique texts” (p. 1). In her research, she found that discourse synthesis involves complex comprehending and composing processes, and three operations (or sub-processes) are central to these processes of textual transformation and meaning construction—organizing, selecting and connecting. Overall, Table 8.1 demonstrates that both the teacher and students’ developmental understandings included the three operations—organizing, selecting and connecting. This implies that discourse synthesis appeared to be a viable construct for the study of L2 synthesis writing. This in itself is an important contribution made by this study to the L2 writing field given its lack of an established framework for synthesis writing, as the current study suggests the constructivist discourse synthesis model it employed is appropriate and useful in the L2 context. The table also shows that there were important differences in the strong and weak writers’ task representations for synthesis writing, with the strong writers’ representations more closely aligned with the teacher’s task representation. These different task representations among the students may well have contributed to differences in the quality of their synthesis writing. These points will now be elaborated upon.

**The teacher’s task representation of synthesis.** Ms. Perry constructed her representation of synthesis tasks as her teaching unfolded throughout the course. In the beginning, she viewed synthesis as a general research paper but identified some key components of synthesis writing, including selecting reliable sources, organizing the
paper cohesively, and bringing together different sources. Around the mid-course period, she stressed the organization of “the basic general concept of western style research paper” but began to realize that the crucial component of synthesis writing is connecting multiple sources. Toward the end of the semester, she developed a more thorough understanding of synthesis, one that was aligned with the constructivist model of discourse synthesis proposed by Spivey (1984, 1990, 1991, 1997). That is, seeing synthesis not merely as a general research paper, but rather the careful selection, organization and skillful integration of sources as well as the creation of new knowledge through transforming the source texts. Thus, Ms. Perry’s conceptualization of synthesizing changed considerably over the course of the academic term.

Ms. Perry’s task representation of synthesis shaped her teaching practices of the two synthesis papers the students were required to write: a short synthesis paper followed later in the term by a long synthesis paper. As shown in Chapter 4, she first focused on organizing and selecting in the short synthesis instructional unit and devoted more attention to connecting sources in the long synthesis instructional unit. She seemed to be quite successful in tackling the organizing and selecting operations of synthesis writing, but found connecting sources particularly challenging in her teaching practices. It was not surprising to observe such pedagogical decisions made by Ms. Perry, because providing a visual representation of how a synthesis paper can be structured represents a logical starting point for learning about synthesizing. Ms. Perry first laid a foundation of global understanding of synthesizing in the short synthesis before delving into its more complex intertextual dynamics in the long synthesis. In this respect the short synthesis paper and
some related supportive writing tasks served to scaffold students’ movement into the longer synthesis assignment.

The students’ task representations of synthesis. From the students’ points of view, there were variations among their representations of synthesis tasks. For the strong writers, Jane and Steve, their overall understandings of synthesis were closely aligned with Ms. Perry’s representations, as shown in Table 8.1. Although their initial understandings of synthesis were quite different, they gradually developed similar working knowledge about synthesizing in the middle and toward the end of the course. During the short synthesis assignment, they both quickly grasped the organization of a synthesis paper and began to notice the importance of selecting appropriate sources and properly connecting sources when composing their synthesis papers. In the long synthesis paper, in which more source texts were required, they carefully selected the source information and worked diligently on connecting source ideas and their own ideas.

On the other hand, the two weak writers, Han and Chen, shared similar understandings of synthesis initially but did not make much progress in the middle and the end of the course. In the short synthesis task, they still struggled with learning the overall organization of a synthesis paper and thus did not pay enough attention to source selection and integration. In the long synthesis task, although Han finally recognized the important role of sources, he failed to carefully select the sources and skillfully connect them. By the end of the course, Chen still focused on the organization of the long synthesis paper without even recognizing the importance of source selection and integration. Thus, these two weak writers had significantly underdeveloped schema and
task representations for synthesis writing compared to those of the two strong writers. As a result, it was far more difficult for the weak writers to engage in what has been called the “near transfer” (James, 2010a) of knowledge and skills across tasks that are highly similar, whereas the strong writers appeared to achieve a high degree of near transfer.

The above findings about the L2 writers’ different performances in synthesis writing are congruent with Spivey’s (1984, 1990, 1991, 1997) results about L1 writers. Spivey’s four discourse synthesis studies found out that the accomplished readers/writers tended to select more important information from sources, produce texts with tighter organization and coherence, and better connect the source texts than the less accomplished readers/writers. These findings are also consistent with Plakans and Gerbils’ (2012, 2013) L2 studies, which found out that the selection of important ideas often predicted scores of L2 writers who took an integrated writing task. The strong L2 writers in this study selected more important information across source texts, and composed synthesis papers that were better connected and more elaborated than the weak L2 writers.

**Discourse synthesis and L2 model of synthesis.** In sum, both the teacher and the L2 students’ understandings of synthesis revealed that the constructivist model of discourse synthesis was a valid theoretical construct to build a L2 model of synthesis. Previously, L2 writing scholars (Plakans, 2008, 2009a; Yang & Plakans, 2012; Zhang, 2013) have successfully applied the discourse synthesis model to L2 reading and writing studies. Plakans (2009a) examined the actual writing processes of L2 writers when they completed an integrated reading-to-write task in a university writing placement test.
study found that some writers employed the discourse synthesis sub-processes—organizing, selecting and connecting—in varying degrees. She suggested that, “discourse synthesis appears to have potential as an integrated reading-writing construct that incorporates reading skill and L2 proficiency with composing” (p. 578). Since Plakans’ study used a one-shot writing placement test, this current study that examined L2 students’ developments in learning-to-write synthesis papers during one academic semester not only validates the above suggestion, but also extends our understanding about how L2 writers acquire various sub-processes in synthesizing. In other words, this study further confirms the idea that discourse synthesis is a useful theoretical model for L2 synthesis writing. When learning to write a synthesis, the findings of this study suggest that L2 writers tend to acquire knowledge concerning organizing more easily, particularly when it is taught explicitly. However, selecting and connecting may pose significant challenges to them because these two operations tap into the activities of “knowledge telling” and “knowledge transforming” (Bereiter & Scardamalia, 1987), with knowledge transforming playing the crucial role and constituting a cognitively demanding application of a variety of sub-skills.

Another study, Yang and Plakans (2012), examined L2 writers’ self-reported strategy use and its relationship to their test performances on the TOEFL integrated reading-writing-listening task. One of the main findings of their study was that the use of discourse synthesis strategies—organizing, selecting and connecting—contributed to better test performance. Similarly, in the present study, the comparison of the strong and weak writers’ understandings of synthesis and their performances on the two synthesis tasks
also revealed that the strong writers employed the three operations (in Yang and Plakans’ term, discourse synthesis strategies) consistently throughout the reading and writing processes, whereas the weak writers tended to ignore the crucial components, such as connecting, in the synthesis writing tasks. Thus, this study further supports Yang and Plakans’ claim that discourse synthesis operations are important to the success of composing from sources for L2 writers.

In addition, a recent experimental study on discourse synthesis instruction in an ESL class (Zhang, 2013) found that explicit instruction of discourse synthesis writing had a positive effect on intermediate level ESL students’ synthesis writing. In Zhang’s study, the teacher-researcher discussed the definition of synthesis and carried out five iterations of discourse synthesis writing practice for the experimental group. The discourse synthesis instruction included comprehension of the sources texts chosen by the teacher-researcher, discussion of the relationships between two source texts, connection exercises, and the use of an analytical scoring rubric. The pretest and posttest revealed that the experimental group who received the repeated discourse synthesis instruction performed and improved significantly better than the control group at the end of the semester. Thus, the author suggested that “integrating synthesis instruction into an ESL classroom … can have a positive effect on students’ synthesis writing” (p. 61).

In comparison to Zhang’s (2013) study, this study demonstrated that Ms. Perry adopted some similar instructional approaches, for example, discussing the definition of synthesis using metaphors, using outlines to establish connections among sources, and using an analytical rubric to demonstrate her expectations about the structure, rhetorical
pattern, content, source use, and language in the synthesis tasks (Appendix L). In addition, Ms. Perry employed other pedagogical approaches which seemed to be helpful, such as the use of topic proposal, annotated references, model papers and an integrated reading-writing approach. Thus, this study reveals some additional effective pedagogical approaches to L2 synthesis writing in a natural classroom setting.

Here it should be noted that Zhang’s study was conducted in an intensive (i.e., pre-admission) English language program, so that the topics and types of reading and writing activities were largely controlled by the teacher, whereas the present study was conducted in a post-admission context in which the students were also taking content courses expected of university undergraduates and thus were given more latitude in their reading and writing. Thus, the current study extends our understanding about discourse synthesis instruction in an ESL academic writing course for ungraduated students, in which the students had more freedom to choose the topics and select the source texts in order to serve their own writing purposes. In fact, both the early research on discourse synthesis in the L1 composition field (Ackerman, 1991; McGinley, 1992; Greene, 1993, 1995; Spivey, 1984, 1991, 1997; Spivey & King, 1989) and the L2 writing studies on discourse synthesis lately (Plakans, 2008, 2009a; Zhang, 2013) tended to use source texts that were predetermined by the researchers. This methodological choice bears its advantages and disadvantages. Spivey (1997) argued that having some commonality in the source texts helps to explicate the complex textual transformations in synthesizing and to understand the relationship between process variations and the quality of written products. However, she also indicated that there is a need to investigate reading-to-write tasks, such as
synthesis writing, using a more naturalistic approach of the type used in the 1902 course. Therefore, this qualitative multiple-case study adds to our knowledge about how L2 writers developed their synthesis writing skills, including organizing, selecting and integrating multiple sources, in a naturalistic classroom setting across time.

**Focus of Discussion #2: The Comparison of the Strong and Weak Writers’ Abilities in Synthesizing**

In the first section of the discussion, I provide a general picture of the students’ developmental understandings of synthesis and their overall performances throughout the course. This section compares the strong and weak writers’ diverse learning experiences with synthesis writing. Table 8.2 summarizes the similarities and differences in synthesizing among the four focal students—Jane, Steve, Han and Chen, and discussion of those findings follows presentation of the table.

<table>
<thead>
<tr>
<th>Source use</th>
<th>Strong writers</th>
<th>Weak writers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source use</td>
<td>Source-based</td>
<td>Opinion-based</td>
</tr>
<tr>
<td>Reading-to-write processes and reading strategies</td>
<td>Yes Strategic reading</td>
<td>Yes Recursive reading</td>
</tr>
<tr>
<td>Individual approaches to synthesizing</td>
<td>Transfer approach</td>
<td>Step-by-step approach</td>
</tr>
</tbody>
</table>

Table 8.2: Comparison of the Strong and Weak Writers’ Abilities in Synthesizing
Source use. Writing from sources is an important component of academic reading and writing for both L1 and L2 writers (Flower, 1990a; Polio & Shi, 2012; Shaw & Pecorari, 2013; Spivey, 1990). In the English for Academic Purposes (EAP) mode that dominates second language writing instruction, source-based writing is the main focus of academic writing courses (Hirvela, in press). The L2 writing course in this study places a particular emphasis on the idea of reading for writing in synthesizing, which is the central act underlying source-based writing and EAP literacy and the key domain in their efforts to address reading-writing connections.

The comparison among the strong and weak writers’ learning experiences with synthesis writing, as demonstrated in Table 8.2, reveals that they developed quite different understandings of source use in synthesizing. The strong writers–Jane and Steve–viewed source use as the crucial component for their synthesis papers. When learning to use sources, they moved from acquiring the fundamental strategies of source use (e.g., paraphrasing, summarizing and quoting) and the citation conventions associated with them, to more sophisticated literacy acts, such as selecting appropriate sources and integrating them to create new meanings. Indeed, the strong writers grasped the essence of source-based writing while practicing synthesis writing. In short, they had developed the kind of schema necessary for successful synthesis writing. In contrast, the weak writers–Han and Chen–considered source use as an auxiliary component to their synthesis papers. When learning to work with sources, they tended to quote the source texts verbatim (rather than paraphrasing or summarizing) and focused on learning the
required citation rules, instead of carefully selecting the sources and connecting them to form new ideas. In fact, what the weak writers did in the two synthesis tasks was a more opinion-based type of writing, rather than source-based writing, because sources were not systemically interpreted and integrated in their synthesis papers. Thus, for these two writers, there was never the development of an appropriate schema for synthesis writing.

The above findings about the strong and weak writers’ source use converged with previous findings about L2 writers’ interpretation of different types of source-based writing tasks (Plakans, 2008, 2010; Shi, 2004). Shi (2004) examined the textual borrowing strategies of L1 and L2 writers in a summary task and an opinion task. Her study found that the L2 writers (i.e., Chinese students in her study) tended to borrow significantly more source texts verbatim than L1 writers (i.e., native English speakers), and both groups of writers relied more on source texts in the summary task than in the opinion task. However, what was unknown in Shi’s study was the relationship between source use and writing quality. In the present study, similar findings have been observed in the two weak writers’ learning experiences. For example, Han and Chen heavily relied on quoting source texts verbatim, and they mainly used their personal opinions rather than sources in their synthesis papers. Furthermore, this study indicated that source use has a strong impact on the quality of the L2 writing, particularly under the current demand of source-based writing in L2 writing instruction, as revealed from the distinctive performances of the two groups of writers on the two synthesis tasks.

The strong and weak writers’ different experiences with source use may also be related to their representations of the synthesis writing task, as suggested briefly earlier.
Previous L2 studies comparing the composing processes and task representations of an integrated reading-to-write task and independent writing-only task revealed that L2 students perceived and engaged in the two types of tasks in distinctive ways (Plakans, 2008, 2010). Based on think-aloud data, Plakans (2010) examined task representations of the integrated and independent tasks and found that six out of the ten students perceived the two tasks similarly, whereas the remaining four students did perceive a difference between the two. In particular, the four students who perceived the difference “interpreted the [integrated] tasks as requiring synthesis of sources texts and spent time considering both how and where to include the readings for support” (p. 191). The result of Plakans’ study parallels with the distinctive representations of synthesis writing constructed by the strong and weak writers: Jane and Steve perceived synthesis writing accurately as primarily source-based, while Han and Steve viewed it inaccurately as an opinion-based writing task with occasional use of sources.

Plakans’ (2008) study compared the composing processes of the integrated reading-to-write task and independent writing-only task using the same think-aloud data set. It found that interested/experienced writers employed a more interactive process in the integrated reading-to-write task; in contrast, the independent writing-only task required more initial planning for most writers. Plakans concluded that the integrated reading-to-write task elicited a more interactive process, in which writers actively interacted with sources, than the writing-only task as a result of a stronger task representation. Both of Plakans’ study as well as this study revealed another important aspect of L2 synthesis writing, that is, whether L2 writers employ a reading-to-write
process and what kind of reading strategies they used to interact with source texts.

**Reading-to-write processes and reading strategies.** Reading ability has been considered as an important predictor for success in synthesis writing (Spivey, 1984; Spivey & King, 1989 in the L1 domain; and Plakans, 2009b; Yang & Plakans, 2012 in the L2 area). During the reading-to-write processes, as Table 8.2 shows, the strong and weak writers took different approaches to composing their synthesis papers. The strong writers—Jane and Steve—employed a more interactive reading-to-write approach. They read the source texts to generate ideas, returned back to the reading as they wrote, and spent time thinking about how to integrate the source texts in their synthesis papers. On the contrary, the two weak writers—Han and Chen—ignored the initial and recursive reading process and wrote their synthesis papers independently from sources, and later “added” or “inserted” the sources to their papers only to meet the specifications for the assignment in terms of number of citations provided, not to improve the quality of their synthesizing.

Moreover, the strong writers also used various reading strategies effectively to cope with the reading and writing demands. For example, Jane, who was a strategic reader and writer, employed a global reading approach (e.g., first reading the abstract and examining the different sections of the texts to identify the useful information) and mining strategies (e.g., purposefully looking for relevant and important source texts and carefully integrating them into her papers). A similar finding was observed in Plakans’ (2009b) study on the role of reading strategies in integrated L2 writing tasks. Her study revealed that high scoring students employed more global and mining strategies as well.
as goal-setting and self-regulating activities, while low scoring students tended to perform more bottom-up word-level reading that did not lend itself to effective use of sources.

The other strong writer, Steve, employed recursive reading-writing strategies in the reading-to-write processes. When reading the source texts and writing the synthesis papers, he took both linear and non-linear approaches to the reading and writing activities. For instance, he first read the source texts strategically to determine the appropriateness of the sources and to locate useful information, and then shifted to the writing mode to refine his thesis points based on the reading texts, and continued working back and forth between the source texts and his synthesis papers. The recursive reading-writing strategies were also observed in McGinley’s (1992) study of L1 college students composing from sources. In fact, the complex recursive reading-writing activities of both the L1 writers in McGinley’s study and the strong L2 writers in the present study further indicate that reading and writing in composing-from-sources are interconnected literacy acts which should not be treated separately. Quite the contrary, the two weak writers in this study both separated synthesis writing from reading, and thus unsuccessfully coped with the synthesis tasks.

Individual approaches to synthesizing. In the current study, another important feature that distinguished the strong and weak writers’ abilities in synthesizing was their individual approaches to synthesis writing. Because the students had never encountered nor practiced synthesis writing in English before, it was interesting to observe their diverse approaches to this new literacy task. The two strong writers—Jane and Steve—
took a transfer approach (DePalma & Ringer, 2011) and step-by-step approach, respectively. Jane actively looked for prior literacy tasks that were similar to synthesis writing and transferred and blended her previously acquired literacy skills to cope with the reading and writing demands of synthesizing. Steve closely followed Ms. Perry’s step-by-step instructions to approach synthesis writing. Once he formed a workable scheme for this new writing genre during the short synthesis task, he carried the acquired skills and knowledge over to the long synthesis paper in what is often called near transfer (James, 2010a; Perkins & Salomon, 1992). Both writers seem to be quite successful in developing their writing abilities in synthesizing.

On the contrary, the two weak writers, Han and Chen, who were heavily influenced by writing practices in their native language, Chinese, employed a “decoration” approach and a “translation” approach, respectively. Han basically composed the synthesis papers based on his personal opinions and mechanically “inserted” a few quotes from the sources as decoration to his synthesis papers. In the Chinese rhetorical tradition, students often “decorate” their essays with famous quotes and anecdotes from well-known historical figures and classic literary works, but these are not used as sources in the ways employed in English academic writing. Thus, Han falsely transferred his Chinese writing practices to English synthesis writing, without adapting his prior knowledge to cope with the considerably different textual world of English source-based writing. Quite similarly, using his Chinese rhetorical knowledge, Chen associated English synthesis writing with Chinese argumentative writing, but he did not recognize the crucial role of source use in synthesizing. Thus, without considering the
vital role of sources in English synthesis writing, he took a “translation” approach to transform his ideas from Chinese to English to compose his synthesis papers. Both Han and Chen seemed to improperly transform their prior rhetorical knowledge to cope with dramatically different textual world of English source-based writing, thus resulting in negative transfer in their synthesis writing.

The above empirical findings support the recent theoretical discussions about “adaptive transfer” in the fields of L2 writing and intercultural rhetoric (Belcher, 2014; DePalma & Ringer, 2011, 2013). Building on the foundational work on transfer in psychology and education (Perkins & Salomon, 1992), DePalma and Ringer (2011) defined “adaptive transfer” as “the conscious or intuitive process of applying or reshaping learned writing knowledge in new and potentially unfamiliar writing situations” (p. 134). The adaptive transfer framework acknowledges both the reuse and reshaping/reforming of prior writing knowledge to fit new writing contexts. Belcher (2014) asserts that DePalma and Ringer’s conceptual framework of adaptive transfer offers a productive theoretical perspective to account for the cultural and rhetorical resources that multilingual writers bring with them for future intercultural rhetoric research.

In the present study, synthesis represented a new writing context for all the students, who possessed a fair amount of rhetorical knowledge about L1 writing (e.g., descriptive and argumentative writing in Chinese) and L2 writing (e.g., summary writing and persuasive and evaluative writing in English). However, the four writers demonstrated different perceptions about the reuse and reshaping of their prior writing knowledge.
The more successful writer, Jane, purposefully developed her writing knowledge of synthesizing through reshaping her previously acquired source-based writing skills, such as summarizing, paraphrasing and responding. More specifically, she first considered synthesis writing similar to “critical thinking/writing,” which was practiced in the first-sequenced L2 writing course (1901) that she had taken prior to the 1902 course. Later, after she practiced the summary and response tasks that preceded synthesizing in the 1902 course, she reused those skills to help compose the short synthesis paper, and eventually developed a fuller understanding of synthesis in her long synthesis paper. The other strong writer, Steve, was aware of the similarities and differences between English synthesis writing and Chinese argumentative writing, but kept the two domains of knowledge rather separate. This prevented negative transfer from occurring. Viewing synthesis as a new literacy task, Steve was able to develop his skills and knowledge of synthesizing following the teacher’s detailed instruction. Hence, Steve, as well as Jane, was able to engage in meaningful adaptive transfer in which prior L1 knowledge was a resource that was used skillfully and where appropriate in L2 synthesis writing.

In contrast, the two weak writers, Han and Chen, both recognized what they saw as a similar structure in Chinese argumentative writing and English synthesis writing, but ignored the unique features of source use in English synthesis writing. Thus, they did not adapt or transform their prior rhetorical knowledge to cope with dramatically different textual world, and this lack of effective adaptive transfer impacted on the lower quality of their synthesis papers.
Focus of Discussion #3: The Individual and Contextual Factors Contributing to the Writers’ Varied Abilities in Synthesizing

Given the students’ varied understanding of synthesis and their diverse learning experiences with synthesis writing, it is crucial to explore why the strong and weak writers performed so differently in the synthesis writing tasks. In this section, I discuss what individual and contextual factors contributed to the students’ varied abilities in synthesizing. I examine two individual factors: the students’ motivation to learn academic writing, and their understanding of academic writing for their college success. In terms of contextual factors, three variables were considered: the classroom instruction, the tutorial interaction between the teacher and the student, and the writers’ prior writing knowledge. Table 8.3 illustrates the major influences of the individual and contextual factors on the four focal students.
Table 8.3: Summary of the Individual and Contextual Factors

<table>
<thead>
<tr>
<th>Individual factors</th>
<th>Strong writers</th>
<th>Weak writers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivation to learn academic writing</td>
<td>Jane</td>
<td>Steve</td>
</tr>
<tr>
<td>Intrinsic</td>
<td>High</td>
<td>High</td>
</tr>
<tr>
<td>Low Instrumental</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Low Extrinsic</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Understanding of academic writing</td>
<td>Epistemic</td>
<td>Epistemic</td>
</tr>
<tr>
<td>Classroom instruction</td>
<td>Both followed the process-oriented instructions on reading-to-write.</td>
<td>Both ignored the instructions on the reading and pre-writing activities.</td>
</tr>
<tr>
<td>Tutorial interaction</td>
<td>Actively interacted with the teacher</td>
<td>Attentive to the teacher’s feedback</td>
</tr>
<tr>
<td>The prior writing knowledge (including both L1 and L2 rhetorical knowledge)</td>
<td>Adaptive transfer of prior L2 rhetorical knowledge</td>
<td>Being aware of relevant L1 rhetorical knowledge</td>
</tr>
</tbody>
</table>

**Individual factors.** In Table 8.3, I categorized the four students’ motivations to learn academic writing and their views of academic writing for their college success according to the background and post-course interviews with the students and my observation throughout the course. Not surprisingly, the two strong writers, Jane and Steve, rated their motivation levels to learn academic writing as “high.” They both believed that learning synthesis writing was useful for their academic studies in the American university. During the course, they spent time and effort acquiring the complex
literacy skills associated with synthesis writing. They also seemed to cultivate an
epistemic understanding of academic writing for their college success. For example, both
Jane and Steve mentioned that they planned to apply for graduate school; thus, they
believed that developing their academic writing abilities would be beneficial not only for
their college studies, but also for their academic success in the long run.

Quite the opposite, the two weak writers–Han and Chen–both rated their
motivation level to learn English academic writing as “low.” They seemed to view
synthesis only as a writing task for the 1902 course, rather than a useful literacy task for
their future college studies. As a communication major undergraduate, Han’s motivation
to study in the American university was rather instrumental, because his main educational
goal was to learn the advanced communication technologies before returning to China.
Chen, a business major undergraduate, did not see much value in practicing synthesis
writing for his disciplinary study, where there is a focus on writing business case study
reports that involve no synthesizing of source texts. More importantly, Chen was not
intrinsically interested in writing and language arts subjects, which resulted in his limited
understanding of synthesis and partial engagement in the synthesis writing tasks.

The comparison of the two groups of writers’ motivations and their understanding
of academic writing clearly revealed that the writers who were intrinsically motivated to
learn English writing were more likely to develop an epistemic understanding of
academic writing, and thus foster a more sustained learning relationship with academic
writing. On the other hand, the writers who were not genuinely interested in writing
tended to treat writing assignments as tasks to complete, rather than opportunities to
develop their academic literacy. While generalizations based on a few cases are tricky, it does not seem unreasonable to assume that similar results would be found among other students sharing these participants’ backgrounds and attitudes.

**Contextual factors.** In this section, I discuss three main contextual factors: the classroom instruction, the tutorial interaction between the teacher and individual students, and the writers’ prior writing knowledge.

**Classroom instruction.** Chapter 4 and the first focus of discussion in this chapter revealed that Ms. Perry developed her understanding of and pedagogical approaches to synthesis writing as the course unfolded. One of Ms. Perry’s pedagogical approaches—process-oriented writing instruction—played a crucial role in introducing the students to the new literacy act of synthesizing. Ms. Perry designed a series of writing assignments during the learning processes associated with the two synthesis papers. For example, she first asked the students to perform searches for sources using an academic database and to explore ideas through selecting and reading sources; she assigned pre-writing tasks, such as topic proposal, annotated references, and outline, to facilitate the students’ comprehending and composing processes. In short, she provided opportunities for scaffolding that would lead into synthesis writing.

However, the two groups of writers demonstrated distinctive responses to Ms. Perry’s process-oriented instruction. The two strong writers, Jane and Steve, closely followed Ms. Perry’s guidance in the reading-to-write processes: they spent quality time reading the source texts and carefully selecting the appropriate information; they attached great value to the outline and used it effectively to scaffold their composing processes.
On the contrary, the weak writers, Han and Chen, did not quite understand the purposes of the pre-writing tasks and the role of sources in synthesis writing. Thus, they did not follow the reading-to-write processes closely. Rather, Han thought that the teacher should ask them to compose the paper first and then look for sources, because “reading sources takes time and makes writing more complicated.” Chen, who was also confused about the pre-writing activities, expected Ms. Perry to provide examples for him to imitate the structure of a synthesis paper, as he was used to such structural and formulaic writing instruction from his background in China, where the use of model essays was a common practice. Therefore, both Han and Chen lacked a clear conceptual understanding of synthesizing from the reading-writing connections perspective. Because they did not attach value to exploring source ideas in the reading continuum, they did not successfully synthesize different source ideas in the reading-to-write processes, except for making sporadic connections between their personal examples and the sources. For them, there was never the creation of a useful synthesis schema to work from.

**Tutorial interaction.** Writing tutorials, i.e., one-to-one teacher-student conferences, have been considered a useful tool to examine student writing development (Michaels, 1987). In the end-of-semester survey that was part of this study, all four students indicated that they found the tutorials with the teacher “very useful” for developing their synthesis writing abilities. Although all writers highly valued the tutorials, they interacted with Ms. Perry in quite different ways. Consequently, the tutorial interaction scaffolded individual writers’ developments in synthesizing differently.

Jane actively engaged in the instructional conversations with Ms. Perry during the
tutorials. She not only followed Ms. Perry’s suggestions to revise her synthesis papers, but also co-constructed her understanding of synthesis and source use with Ms. Perry. Initially, Jane focused on the learning the linguistic and mechanical aspects of source use in the first tutorial; after acquiring the required citation formats, she devoted a lot of attention to the development of ideas and source use. Being rather shy, Steve was not as active as Jane, but he was very attentive to Ms. Perry’s oral and written feedback. In fact, he revised his synthesis papers by closely following Ms. Perry’s suggestions. Throughout multiple drafting and revising, Steve gradually built his understanding of synthesis and source use under Ms. Perry’s guidance.

The two weak writers also valued the teacher’s tutorial feedback. However, because their synthesis papers had more problems at the structure and sentence levels, their individual tutorials with Ms. Perry were not as effective as the strong writers. More tutorial time had to be devoted to these aspects of their writing rather than the elements of synthesizing. Han, whose main concern was keeping his papers organized and sticking to his thesis points, did not further develop his synthesizing skills. The majority part of his tutorials was centered on issues pertaining to organizational structure, grammar mistakes, and citation rules. Thus, little time and effort were devoted to discussing idea development and source integration. The other weak writer, Chen, who heavily focused on figuring out the structure of a synthesis paper, ignored Ms. Perry’s suggestions regarding source use and integration during the tutorial. All he wanted to know was how to organize his synthesis papers in a Western rhetorical style. His restricted view impeded him from building a fuller understanding of synthesis writing, in particular, selecting
appropriate sources and skillfully integrating them to support his arguments.

Overall, because the tutorials provided the students with individualized learning opportunities to interact and negotiate with the teacher about their writing during the multi-drafting processes, it seems clear that the tutorials played a crucial role in shaping the students’ synthesis papers and constructing their understanding of synthesis. The strong and weak writers’ reactions to the teacher’s feedback and their level of preparedness for the tutorials largely influenced the effectiveness of those tutorial interactions.

**The writers’ prior writing knowledge.** In the second section of this chapter, I have described the four writers’ individual approaches to synthesizing: Jane adopted more of an overt transfer approach, and Steve followed a step-by-step approach; Han used a “decoration” approach, and Chen adopted a “translation” approach. In addition to the classroom instruction and tutorial interaction, a very important factor that influenced the students’ individual approaches to synthesizing was their prior writing knowledge.

In both L1 composition and L2 writing studies, prior writing knowledge or experience has been examined in research on writing from sources (Ackerman, 1991; Plakans 2008, 2009a, 2010). Ackerman’s (1991) study explored the role of prior writing knowledge, both topical and rhetorical knowledge, in composing synthesis essays by L1 graduate students. His study found that prior knowledge (i.e., familiarity with the disciplinary topic and previous experience about reading and writing) influenced graduate students’ abilities to locate and evaluate the source texts in the synthesis task. Given that the participants’ in Ackerman’s study were graduate students, it was reasonable to
observe that familiarity with disciplinary topic influenced the graduate students’ synthesizing abilities. In the present study, all participants were undergraduate students, mostly in their first year of college. In short, they lacked the kind of disciplinary focus and experience of graduate students; as a result, I did not find that disciplinary knowledge or background seemed to influence the students’ synthesis writing. Then, too, the topics and reading materials for the 1902 course were not discipline-specific. Thus, the synthesis paper assignments did not require a large amount of disciplinary knowledge, but rather focused on developing the students’ academic writing skills and literacy practices across the curriculum in the university. As it turned out, all four writers were able to associate the topics of their synthesis papers with their concurrent courses in that semester, but this was only on a superficial level and thus did not seem to assist them in their synthesizing. In other circumstances involving undergraduate L2 writers, it might be a different story, but disciplinary affiliation did not appear to be a factor in this study.

Plakans’ (2008, 2009a, 2010) research on integrated reading-writing tasks with L2 writers also revealed that prior writing experience had an impact on their perceptions and performances of the integrated reading-writing task. Plakans’ (2008, 2009a) studies revealed that L2 writers who employed an interactive process (i.e., discourse synthesis sub-processes) in the integrated reading-writing tasks tended to have more interests and experiences in writing. Plakans (2010) found that L2 writers who distinguished between the two writing tasks—integrated and independent—were likely to have more academic writing experience. In this study, all four writers had relatively similar amounts of writing experiences in English. They had all studied for and completed the TOEFL and SAT
writing tasks before they came to the U.S. and practiced summary, evaluative and persuasive writing in the first ESL composition course (1901) in the previous semester. They also had received similar forms amounts of literacy instruction in their native language, excerpt, Chen who confidently reported having a lot of writing experience in Chinese. However, the four writers seemed to apply their prior writing knowledge to synthesis tasks in quite different ways. Jane searched for previous writing tasks or skills that were similar to synthesizing, and actively transferred those skills to complete the synthesis tasks. Viewing synthesis writing as a completely new literacy task, Steve was aware of the L1 rhetorical knowledge that might be relevant, but kept the rhetorical knowledge in the L1 and L2 domains rather separate. On the contrary, the two weak writers, Han and Chen, both viewed what they saw as a similar structure between English synthesis paper and Chinese argumentative writing, but falsely transferred their L1 rhetorical knowledge to performing L2 synthesis writing, without acknowledging the vital role of sources in synthesizing.

Thus, the four writers’ similar learning backgrounds but distinctive use of their prior writing experience may indicate that there are different domains of writing knowledge, particularly for L2 writers, who possess a great amount of rhetorical knowledge in their first language but are still acquiring the rhetorical and linguistic knowledge in their second language. L2 writing researchers and teachers need to be cautious about which domain of writing knowledge the students draw from when learning a new literacy task. It is also important to understand L2 writers’ resources and prior knowledge from a learning perspective, regardless of whether they are from the L1 or L2
domain, so that writing teachers can help L2 writers reuse and adapt their prior writing knowledge to account for new rhetorical situations. This point also leads to the pedagogical implications arising from this study.

**Conclusions Arising from the Study**

In sum, the above discussions reveal several major conclusions arising from the study. First of all, the teacher’s task representation of synthesis and pedagogical approaches to synthesis writing played a crucial role in developing the students’ task representations of synthesis and their understandings of source use. Here it is important to note Ms. Perry’s commitment to preparing herself to teach synthesis writing effectively. As Chapter 4 shows, she took synthesis writing and her responsibilities as a writing teacher seriously, and this enabled her to create a more supportive teaching-learning dynamic in her 1902 course. Not all teachers would display that level of commitment. Hence, the study shows that teacher openness and commitment to synthesis writing can be an important factor in what transpires among students.

Second, and deriving in part from the first conclusion, both the teacher’s task representation of synthesis and the strong students’ composing processes of synthesis writing involved three crucial sub-processes connected with the constructivist model of synthesizing—organizing, selecting and connecting. Thus, the constructivist model of discourse synthesis (and reading and writing) from the L1 domain is a viable theoretical construct for researching L2 synthesis writing and reading-writing connections, as well as for teaching synthesis writing. Ms. Perry’s willingness to embrace that model reveals how useful it can be in discussions of how to teach L2 writing, especially from the EAP
Third, and building on the second point, the constructivist model of discourse synthesis needs to be applied to the L2 context with careful consideration of L2 students’ understanding of sources, given that source use has a strong impact on the quality of their synthesis writing, particularly under the current demand of source-based writing in L2 writing instruction. The strong and weak writers’ different engagements with sources in this study demonstrate three levels of source use: documentation of sources at the mechanical level (e.g., citation format), strategies of source use at the linguistic level (e.g., summary, paraphrase, quote), and at the conceptual level, proper selection and integration of source. I argue that L2 writing teachers need to address all levels of source use in synthesis writing instruction, in particular the conceptual level. Furthermore, because of multilingual students’ diverse linguistic and cultural backgrounds, it is very likely that they may inherit, and possibly work with, different connotation of “sources” from their first language cultural and rhetorical traditions. Thus, it becomes even more important to explicitly address the roles of sources in English source-based writing at the conceptual level. There is, then, a need to adjust the L1 constructivist model of discourse synthesis to the L2 context. The nature and extent of those adjustments can be explored in future L2 writing research.

Fourth, reading abilities and strategies are important predictors for L2 students’ success with synthesis writing. Because synthesis writing encompasses both the comprehending and composing acts, understanding reading-to-write processes and employing a more interactive or constructive approach to the reading and writing
activities play critical roles in L2 students’ success in synthesis tasks. The important role of reading in synthesizing also points to the interconnected relationships between reading and writing in discourse synthesis. This study has shed some valuable light on interactions between reading and writing, especially in comparisons of the two strong and two weak writers.

Fifth, L2 writers’ motivation to learn academic writing and their views of academic writing for their college success may influence their engagements in learning to synthesize. Writers who are intrinsically motivated to learn writing are more likely to develop an epistemic understanding of academic writing and thus foster a more sustained learning relationship with academic writing. Furthermore, as revealed in Chapter 5, the student survey showed that the respondents ranked the two synthesis assignments as the most useful major writing tasks in the course, despite also ranking them as the least enjoyable and most difficult. For the stronger writers, at least, this identification of them as the most useful may well have contributed to their motivation to succeed in them. Moreover, the contextual variables, such as the classroom instruction, the tutorial interaction between the teacher and the student, and the writers’ prior writing knowledge, are also important factors to consider when examining the complex interaction between the teaching and learning of the sophisticated literacy acts of synthesizing.

Finally, this study has offered more insights into transfer-related aspects of source-based teaching and learning. The juxtaposition of the short synthesis paper and the long synthesis paper gave students an opportunity to engage in effective near transfer of synthesizing skills and knowledge, as was shown in the cases of Jane and Steve. In this
regard there was what James (2009) calls a suitable “transfer climate” for the development of synthesizing ability. Likewise, there were opportunities for adaptive transfer for those writers who were able to successfully negotiate between their L1 and L2 writing knowledge and experiences. Thus, another conclusion arising from this study is that transfer deserves consideration in writing course design so that meaningful opportunities for, at the least, near transfer of synthesizing ability can occur (as in the case of the 1902 course), with implications for far transfer to related writing contexts outside L2 writing courses.

**Pedagogical Implications**

This study was based on one ESL academic writing class in which the teaching and learning of synthesis writing were closely examined. The findings in this study suggest several pedagogical implications for L2 writing teachers who work with multilingual writers from diverse cultural and linguistic backgrounds.

Since source-based writing has become the main focus of L2 academic writing courses (Hirvela, in press), the main findings of this study suggest that L2 writing teachers need to explicitly address synthesizing and source use in academic writing courses, including explaining the fundamental concepts such as: What is a source? What are sub-processes in synthesizing? What are the differences between writing from sources and writing based on one’s opinion? In this course, Ms. Perry eventually had a comprehensive knowledge of synthesis and the sub-processes of synthesizing. She explicitly explained the definition of synthesis to the students. Because the three operations of synthesizing—organizing, selecting and connecting—are involved in both the
comprehending and composing processes, L2 writing teachers can make the sub-processes of discourse synthesis more explicit to their students. At the beginning of this course, Ms. Perry introduced the students to an academic database and taught them step-by-step how to conduct database searches and select relevant sources. These classroom activities were helpful to introduce academic sources to L2 writers. However, it is equally important to discuss with the students the purpose(s) of source use and why academic sources are highly valued in English academic writing. For L2 writers who are not familiar with source-based writing or may have a different cultural connotation of “source,” it is critical for them to understand the roles of source use in English academic writing, specifically synthesis writing. In the case of the Chinese students in this study, they had been accustomed to opinion-based writing from their first language literacy education, so it was necessary to explain the differences between writing from sources and writing based on one’s opinion. Teachers need to account for this. From there, L2 teachers can gradually introduce the fundamental skills of source-based writing, citation practices, and eventually integration of sources.

In the American institutions, most ESL writing curricula are operating under a skills-based model and using a genre-based approach (Ivanič, 2004). This means that writing is usually dissected into discrete skills, such as summarizing, paraphrasing, responding, reading comprehension, critical thinking, and so forth. When L2 writing teachers teach these skills separately, they often expect the students to transfer these skills from one writing task to another. In the course under study, Ms. Perry also held similar expectations for her students: she expected them to apply the source-based writing skills
acquired earlier in the course to the short synthesis task in the middle of the course, and later to the long synthesis paper toward the end of the course. The findings of this study together with the recent research on L2 source-based writing (Hirvela & Du, 2013; Polio & Shi, 2012; Shaw & Pecorari, 2013; Shi, 2004, 2010, 2012) revealed that transfer of skills across writing tasks and contexts does not happen easily, particularly with regard to synthesizing which involves a range of complex literacy skills and a great amount of knowledge about reading and writing relationships. Thus, teachers need to pay more attention to the needs associated with generating a successful “transfer climate.”

Another difficulty of synthesizing is that it taps into both domains of “knowledge telling” and “knowledge transforming,” with knowledge transforming playing a crucial role. Therefore, L2 writing teachers need to be aware that although it may be necessary to teach the source-based writing skills separately in order to lay a solid foundation in the first place and develop knowledge telling skills, they cannot assume that L2 writers will be able to transfer those discrete skills effortlessly into complex literacy tasks, such as synthesis writing, that is, engage in knowledge transforming. In fact, studies on learning transfer in the L2 writing classroom (Currie, 1999; James, 2006, 2008, 2009, 2010a, 2010b, 2012) have shown that transfer of writing skills and knowledge is a very complex construct that is influenced by many variables, including individual, contextual and affective variables. Thus, L2 writing teachers need to provide repeated scaffolding to their students when they work on source-based writing tasks in order to lay the groundwork for the knowledge transforming that is part of the transfer process.

In this study, some of Ms. Perry’s instruction seemed to be quite effective. For
example, for each course reading, she provided a reading guide with discussion questions to facilitate the students’ comprehension of the reading texts; for the long synthesis paper, she assigned the annotated references when the students were reading the source texts; in the outline she asked the students to lay out the relationships between sources and their own opinions. These instructional activities echo Zhang’s (2013) experimental study that reported similar effective instruction for intermediate ESL students, such as providing reading guides with discussion questions, and practicing connection exercises. However, these activities, which may prove effective for developing knowledge telling skills, must be examined for their potential to contribute to the development of knowledge transforming skills. Teachers may need to develop additional activities that promote knowledge transforming.

Currently, L2 writing courses often place a particular emphasis on reading for writing. Thus, synthesizing, as an important reading-to-write task, represents the central literacy act of connecting reading and writing. The findings of this study suggest that an integrated reading-writing approach is critical in building L2 students’ synthesizing abilities. The strong writers who employed various reading strategies (e.g., global and mining strategies, recursive reading-writing strategies) grasped the reading-to-write processes much better than the weak writers, who ignored the reading component and delved directly into the composing processes. In this course, Ms. Perry employed the integrated reading-writing approach to some extent. For instance, she chose a well-organized reading text and demonstrated the organizational structure of a synthesis paper through outlining the reading text. She also discussed pre-reading strategies, such as
skimming and global reading. However, those teaching academic writing courses revolving around reading-writing connections and reading to write need to look into additional ways of building those connections through synthesizing.

Furthermore, these findings indicate that L2 writing teachers can use “reading” as a means to teach “writing.” As Salvatori (1996) argued, reading and writing are interconnected activities, and composition teachers should make the invisible interconnectedness of reading and writing more visible to the students. Salvatori also pointed out that when reading and writing are operated as interconnected activities in composition classrooms, it is crucial to consider “what kind of reading gets to be theorized and practiced” (p. 443). In the L2 writing class under study, Ms. Perry suggested that the reading materials need to be more relevant and similar to what the students are actually writing. Thus she suggested generating a collection of academic research articles on a variety of topics and using those as required reading as both the “source texts” and “context” for practicing synthesis writing. All in all, Ms. Perry’s attempt is just one example of how to address the reading-writing connectedness. The implication of such pedagogical practices for L2 writing teachers is to make explicit connections between reading and writing so that L2 students can develop their reading and writing skills simultaneously.

Finally, the Chinese students in this study, particularly the weak writers such as Chen, constructed unique cultural expectations for the L2 writing teacher in providing feedback for synthesis writing. Specifically, the weak writers tended to expect Ms. Perry to provide explicit instruction and concrete examples when acquiring the new literacy
task of synthesis writing. This revealed an interesting perspective on the role of writing teachers in providing guidance constructed by multilingual students. The weak writers’ stories in this study suggested that it might be helpful for L2 writing teachers to learn more about their students’ expectations regarding teacher guidance and written and oral feedback. Understanding the students’ cultural and educational background would help L2 writing teachers better assisting multilingual students’ learning needs.

**Limitations of the Study**

Although the classroom-based qualitative multi-case studies were carefully designed and the research instruments were tested in a pilot study beforehand, there are still some limitations, which may affect how the findings of this study can be interpreted and generalized.

First of all, I selected one L2 writing classroom to observe during an academic semester. The teacher, Ms. Perry, was among the twelve writing instructors (including me, the researcher) for the course across various sections of it. As I explained in Chapter 3, I chose to observe Ms. Perry’s class for three main reasons: 1) she was willing to participate in my study, and her teaching schedule did not interfere with my teaching schedule; 2) the course coordinator who supervised the entire teacher group highly recommended her because of her teaching experience and familiarity with the course (Ms. Perry had taught the course before); 3) despite her 5-year teaching experience, she was still developing her teacher identity and epistemology of writing instruction in her early teaching career. Ms. Perry’s background allowed me to research her teaching of synthesis writing from a developmental perspective. Therefore, the classroom and teacher
that I chose for this study may not represent the entire teacher group for the course, since there were variations among the L2 writing instructors in terms of teaching experience, professional training, and individual styles. Nonetheless, the diversity of L2 writing instructors is a common reality for many ESL composition programs in the American institutions. The fact that this study was based on one particular ESL writing class is a limitation; but on the other hand, this methodological choice offered me the opportunities to closely observe this particular class and to gain an insider view of the teaching and learning of synthesis writing over one academic term.

Another limitation of this study is the small number of focal participants that I included in the detailed analysis of this research. Because the study adopted a qualitative multi-case studies approach, I selected four focal participants to describe their diverse developmental trajectories of synthesis writing. Robert Yin (2014), in his book *Case study research design and methods*, asserts that when using a multiple-case design, a sampling logic should not be used to determine the number of cases for the study. Instead, Yin argued that researchers “should think of the number of case replications—both literal and theoretical—that [they] need or would like to have in [their] study” (p. 61). Following Yin’s replication logic, the four focal participants were carefully chosen after examining all ten student participants’ overall perceptions of and performances in the synthesis writing tasks (see the discussion in Chapter 5). In other words, the four focal participants—Jane, Steve, Han and Chen—were not meant to represent the overall student population in the 1902 course nor L2 writers at large; rather, they demonstrated their diverse learning experiences with synthesis writing and revealed important theoretical
propositions about reading and writing relationships in synthesizing.

Last but not least, the study is also limited with regard to the linguistic and cultural background of the participants. This study only focused on Chinese undergraduate students because they represent the largest international student population in the current institution and the ESL composition program, as well at other American institutions of higher learning. As the researcher, using my shared language skill and knowledge about Chinese cultural and rhetorical traditions, I decided to focus on Chinese students’ literacy experiences with synthesizing. This decision was both a realistic and methodological choice in the research design. Therefore, the findings, particularly the discussion about the students’ first language writing knowledge, cannot be generalized to L2 writers from different ethnic and cultural groups.

**Suggestions for Future Research**

Given the findings and limitations of this study, I propose several suggestions for future research. Since this study looked into both the teaching and learning components of synthesis writing, I provide suggestions for future research from both the teaching and learning perspectives.

From the learning perspective, this study followed the students’ paths of learning-to-write-from-sources from a short synthesis task to a long synthesis paper in one semester. At large, it discerned a general developmental pattern across all student participants, but with significant individual variations in different aspects of synthesis writing. One reason that the weak writers did not make sufficient progress in learning to write a synthesis in this course may be due to the fact that synthesizing is a complex
literacy skill, which may take much longer than one semester to acquire. In fact, source-based writing is such a commonly assigned task in undergraduate education that the students will definitely encounter it later in their college years. For example, after taking the ESL composition courses, L2 students often need to take writing courses such as first year composition and writing in the discipline. It would be meaningful to investigate how L2 writers transfer the skills of synthesizing to other source-based writing tasks in different course learning context, i.e., what is known as “far transfer.” In this study, I did not find that disciplinary knowledge seemed to play an important role in L2 students’ synthesis writing. As they move onto their disciplinary studies, it is worth exploring whether disciplinary content knowledge plays a certain role in upper-level L2 undergraduate students’ source-based writing.

As the L2 student population has become more diverse in English-medium universities, L2 writing and literacy scholars have looked into L2 students’ writing knowledge and linguistic resources in their first language (Horner, Lu, Royster & Trimbur, 2011). The early work of intercultural rhetoric suggested that first language rhetorical knowledge may influence L2 students’ English writing. This study only examined the role of prior writing knowledge of Chinese international students on their English synthesis writing. Future research could explore other linguistic and cultural groups of L2 writers’ rhetorical knowledge and its influence on their source-based writing.

From the teaching perspective, this study documented an early-career L2 writing instructor, Ms. Perry, and her development in learning to teach a relatively new but very
important writing task–synthesis writing. L2 writing scholars have long called for more
research on L2 writing teacher education (Hirvela & Belcher, 2007). In this study, Ms.
Perry had demonstrated a sufficient amount of working knowledge of synthesis writing.
She also began to develop her own epistemology of and pedagogical approaches to
source-based writing instruction. It would be interesting to examine the kinds of teaching
support that L2 writing teachers receive, such as professional training they get from their
teacher preparation programs, and interactions with other L2 writing instructors during
teaching staff meetings. Thus, this study also calls for research on L2 writing teacher
education, particularly with regard to learning to teach source-based writing.

**Contributions and Closing Remarks**

This study examined the teaching and learning of synthesis writing in a university
undergraduate L2 academic writing course. It contributes to L2 writing and literacy
research in several important ways. First, in the area of second language literacy,
although the reading and writing connection has been widely recognized, it still remains
an underexplored area (Carson & Leki, 1993; Belcher & Hirvela, 2001; Hirvela, 2004).
Compared to its L1 counterpart, the field of L2 writing lacks a theoretical model of
reading and writing connections. Motivated by the constructive model of discourse
synthesis in the L1 composition field (Spivey, 1990, 1997), this study explored reading
and writing connections through closely examining an important and complex literacy
task–synthesis writing–to shed light on the reading and writing relationships when
composing from sources by second language writers. The study found that the L1
constructive model of discourse synthesis and its sub-processes–organizing, selecting and
connecting—are applicable to the L2 domain. However, because L2 writers may have different understandings of sources based on their L1 rhetorical knowledge, and they are still in the process of acquiring the new literacy forms in their second language, synthesis writing poses a great challenge to them, particularly with regard to the operations of selecting and connecting. This study has offered valuable insights into connecting the constructivist model of discourse synthesis to the teaching of L2 reading-writing connections through source-based literacy tasks like synthesizing.

Second, in addition to the theoretical contribution to the L2 writing and literacy, this study adds to the growing body of research on L2 source-based writing, which has attracted sustained research interest among L2 writing scholars. However, compared to the existing literature on summarizing and paraphrasing, there is a lack of empirical investigation of synthesizing, which represents a crucial and complicated literacy act for many L2 writers. The focus on synthesizing in this study narrows the gap and provides a broad picture of how L2 writers utilize various skills to work with sources within the specific and important context of synthesis writing.

Another important feature and contribution of this study is that it explored both a task representation and a transfer perspective of synthesis writing. In other words, this study attempted to understand which literacy skills and knowledge that L2 writers transfer to synthesis writing, and how, especially in relationship to the kinds of task representations they form. Many L2 writing scholars believe that one of the goals of second language writing education is to promote learning transfer across different tasks and contexts. Given this goal, it is critical to obtain an in-depth understanding of
synthesis writing from a transfer perspective. This study has shown that some L2 writers reused and reshaped their prior writing knowledge, both from their first language and second language, to approach the new literacy task of synthesizing. In particular, it demonstrated the potential for successful “near transfer” of learning related to writing related to synthesis writing.

Finally, this study aimed to understand both the complex social and cognitive processes necessary for learning to write from sources for L2 writers. One important dimension that has been missing in the research on academic writing in both L1 and L2 classrooms is to study learning in situ. This study examined the teacher’s learning-to-teach synthesis writing and the students’ learning-to-write from sources in their everyday classroom environment across time. In particular, I investigated how the L2 students developed their abilities in synthesizing through classroom instruction and tutorial interactions with the teacher. By considering both the classroom context and learning over time, this study explicates how the teaching and learning of synthesis writing interact in complex ways and how the students’ understandings of synthesis and the complex processes of organizing, selecting and connecting can be socially constructed between the teacher and L2 students.
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Appendix A: Course Syllabus

1902 Academic Writing with Sources

Course Description
The 1902 course is an advanced writing course for multilingual students. It is designed to help students further develop their academic writing skills. In this course, students will be introduced to the skills necessary to perform source-based research and compose university-level academic essays. Library resources will be introduced and integrated into the course.

Textbooks
*Culture: Leading scientists explore societies, art, power, and technology*, edited by John Brockman (2011)
*Sourcework: Academic writing from sources*, by Nancy E. Dollahite & Julie Haun (2012)

Learning Outcomes
This course will focus on the fundamental elements of incorporating sources of knowledge into academic research papers. This will involve reading full-length articles, reflecting on the information, and participating in expanding the knowledge about the theme. There will be a strong emphasis on appropriate use and citation of sources in order to avoid plagiarism. A central goal of the course is to prepare students for writing academic papers for other university courses in which they must use sources to develop and support ideas.

By the end of this course, students should be able to:
- Read texts with an analytical or evaluative perspective with the goal of writing.
- Articulate their own ideas and use sources to support them.
- Summarize, paraphrase, and quote in the context of writing from sources.
- Choose and evaluate sources for credibility and relevance.
- Select topics and pose research questions.
- Brainstorm, plan, and write source-based research papers.
- Gain competence in using APA documentation conventions.
- Demonstrate an ability to edit for grammatical accuracy.
- Avoid plagiarism.
- Use the University Library online system and other digital resources.

Assignments
I. Focused Writing Tasks 30%

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II. Synthesis Paper (3-4 pages) 20%
III. Long Research Paper (6-8 pages) 35%
IV. Quizzes/in-class work/homework 10%
V. Paper Presentation 5%

Description of Assignments

Focused Writing Tasks: Writing activities for this assignment will vary. They may include paraphrasing, summarizing, answering reading comprehension questions, reflecting, responding, or writing other short essays. Your instructor will determine the tasks.

Synthesis Paper: This assignment will be an essay of about 3-4 pages on a topic related to our readings and will be assigned approximately in the middle of the semester. Your instructor will give you detailed instructions. The synthesis paper is an opportunity to practice what you have learned from the beginning to the middle of the semester. In this assignment, you are required to submit multiple drafts and have a one-on-one tutorial with your instructor. If you do not submit all drafts of the paper, you will receive an E for the assignment.

Long Research Paper: This assignment will be a paper of about 6-8 pages on an approved topic. It serves as your final exam in the course. In this paper, you will use articles from our reading list as well as outside sources. Your instructor will give you specific instructions. The source-based long research paper is a chance to demonstrate what you have learned throughout the semester in terms of using sources, organizing your ideas, and controlling your writing. Appropriate formatting according to the APA style is also important. In this assignment, you are also required to submit multiple drafts and meet with your instructor in a tutorial. All drafts of the paper must be submitted; otherwise you will receive an E for the assignment. Students who do not receive at least a C- on the long research paper will not pass the course and have to repeat 1902.

Quizzes/in-class work/homework: There will be a number of quizzes, in-class and homework assignments throughout the semester. Your instructor will give you detailed information about these assignments.

Presentation of the Long Research Paper: You will present your long research paper in a brief presentation to the class. Your instructor will give you specific guidelines. These can be done as short power points or posters.

Grading Scale
The 1902 course uses the OSU standard grading scale.

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<td>B+</td>
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<td>C</td>
<td>73-76.99</td>
<td>C-</td>
<td>70-72.99</td>
</tr>
<tr>
<td>D+</td>
<td>67-69.99</td>
<td>D</td>
<td>60-66.99</td>
</tr>
<tr>
<td>D</td>
<td>60-66.99</td>
<td>E</td>
<td>less than 60</td>
</tr>
</tbody>
</table>

287
NOTE: During the semester, your instructor will take note of your preparation and participation in the course. Participation is not limited to speaking – it means not sleeping in class or not doing work for another class on your laptop/tablet computer. It could mean being prepared by doing the assigned reading. It could mean not coming late to class too frequently.
Appendix B: Stimulated-Recall Protocol

Direction: First, put the students’ proposal, outline, drafts, the teacher’s feedback in front of the researcher and the student. Ask questions #1, #2, #3 to get started, then ask the student to explain how he/she put the paper together.

1. How did you choose the topic (and focus)? What make you decide to write about this topic in your long synthesis paper?
2. How did you get started? What was the first thing you do? (i.e., what did you do when you first begin writing the short synthesis paper? e.g., reading the source articles, outlining, writing proposal etc.)
3. What is the first paragraph or section that you write? How did you begin your introduction paragraph?
4. How did you write the rest of the introduction? What kinds of techniques (Sourcework, p. 102) did you use to write the introduction? (e.g., did you follow specific instruction or guideline? e.g., Hook-Background-Thesis?)
5. What main points are you trying to make in this paper? What is your thesis statement? How did you organize the paper and why you organize your paper in this way?
6. What key points are you trying to make in the first/second/third body paragraph? What is your topic sentence? How did you organize this body paragraph?
7. How many sources did you use in the first/second/third body paragraph? How did you select or choose these sources? (What parts of the sources did you use in writing your paper?)
8. How did you read the sources? (e.g., global reading/skimming; focused reading; reading the abstract etc.) Did you take notes while reading the sources? If yes, in the margin or on a separate sheet?
9. How did you integrate/connect the sources support your thesis and topic sentences? (e.g., paraphrasing, summarizing, quoting) How did you decide which techniques/strategies to use here? And why did you make such decisions about source use?
10. Were you able to incorporate your own ideas into the paper? How about personal examples/observations? Do you think it is appropriate to use personal account as evidence in your paper?
11. How did you end the final paragraph? What kinds of strategies did you use while
writing the conclusion? (e.g., did you follow specific instruction or formula to write your conclusion?)

12. Now you have finished the Short/Long Synthesis, what is your understanding of synthesis? What was easy or difficult for you? What kinds of support have you received from your teacher, your classmates or friends, and writing center tutors?
Appendix C: Background Interview Protocol

1. Which part of China are you from? How long have you been in the U.S.? Before coming to the U.S., can you briefly talk about your educational background? Your middle and high schools experiences (and university experience in China if you are a transfer student)?
你来自中国哪里? 在美国生活多长时间了? 你能简要介绍一下你在国内的学习经历吗?

2. Talk about your experiences in L1 reading and writing. Recall your middle or high school language arts class, what kinds of reading and writing have you done?
谈一谈你汉语阅读和写作的经历。回想一下你在初中或高中的语文课堂，你读过些什么写过什么? 语文老师是怎么教阅读和写作的?

3. Talk about your experience in L2 reading and writing. Recall your middle or high school English as a foreign language class, what kinds of reading and writing have you done?
谈一谈你英语阅读和写作的经历。回想一下你在初中或高中的英语课堂，你读过些什么写过什么? 英语老师是怎么教阅读和写作的?

4. Have you taken the TOEFL iBT (internet-based test)? How did you prepare the writing sections in general? How did you handle the integrated writing task? (i.e., the one that you listened to a lecture and read a passage to synthesize the two) What kinds of instruction or training have you received for the TOEFL iBT writing tasks? How did you prepare SAT writing?
你考过 TOEFL iBT 吗? 你是怎么准备写作部分的? 你记得有一个部分 integrated writing task (先听一段讲课的录音，然后读一段文字，最后你要把听力和阅读的内容综合起来完成写作)?你是怎么学习准备这个部分的? 接受过什么样的训练? 你是怎么准备 SAT 写作部分的?

5. Have you heard of synthesis writing (i.e., integrated writing or source-based writing) before? Have you practised synthesis writing in your L1 or L2 before? If yes, what do those writing activities look like? Do you perceive any similarity or differences between the synthesis tasks in L1 and L2?
你以前听说过 synthesis writing 或者 integrated writing, 还有 source-based writing 吗? 在汉语写作方面，你有学过或练习过 synthesis writing/integrated writing 吗? 在英语方面呢? 这两者有相似或者不同之处吗?

6. In your first-sequenced writing class, what kinds of writing have you practiced? (Prompt Summary, Comparative Critical Review, Persuasive Essay and Digital Story)
How is synthesis writing similar to or different from those types of writing? In general, what did you learn from that course/instructor?

上个学期的写作课堂上，你都学了些什么？Synthesis writing 和上学期的写的有什么相似或不同的地方吗？总体来说，上个学期的写作课你都学到些什么？

7. What is your definition of synthesis? In your opinion, what is the term or translation of synthesis in your first language? When you write synthesis (e.g., synthesized summary), how do you actually synthesize materials? Can you give an example?

你觉得 synthesis 的定义是什么？你觉得用汉语怎么翻译 “synthesis”？汉语里有这个或者类似的 term 吗？当你写 synthesis 的时候，你是怎么综合的？比如说，怎么选择材料/例子？怎么组织文章？怎么综合的呢？

8. What do you see as the challenges/difficulties of doing synthesis writing? Which skills or knowledge do you think are important to do synthesis writing in English (e.g., summarizing, paraphrasing, selecting information, organizing, integrating, connecting etc.)?

你觉得 synthesis writing 最难的地方在哪里？有哪些具体的技能或者策略对 synthesis writing 很重要？

9. Do you think it is useful to learn synthesis writing? What do you think are the values to learn and practice synthesis writing? Why do you think it is useful? Do you anticipate the use of synthesis writing in your other university courses? What are those courses?

你觉得学习 synthesis writing 对提高写作能力有帮助吗？学习 synthesis writing 对你具体有哪些帮助？你觉的在其他哪些大学课程里你会用到 synthesis writing？

10. What do you think is the best way to learn English academic writing? Why? Do you want to be a good academic writer in English? In other words, is being a good writer of academic English important to your educational goal in the university?

你觉得学习英语学术写作的最好的方法是什么？对于你来说，成为一个好的英语写作作者重要吗？你在大学的目标是什么？掌握好英语写作对实现你的目标重要吗？

11. How do you define good academic writing? What do you think are the characteristics of good academic writing in English? (Is it based on organization, grammar, ideas, vocabulary, etc.?)

你是怎么定义好的学术写作的？你觉的好的英语学术写作有哪些特点？

12. Beyond this academic writing course, what other kinds of reading and writing activities have you done in English, either for other courses or for leisure? Think about reading and writing in a broader term. (e.g., reading an English novel for literature class, writing blogs, emails, or diary in English)

除了这么英语写作课程之外，你在课外还做过哪些英语阅读和写作的活动？
Appendix D: End-of-Semester Survey

Date:
Participant:

1. Please rate the usefulness of the writing tasks in this course in developing your academic writing ability in English.

<table>
<thead>
<tr>
<th>Writing Tasks</th>
<th>Not useful</th>
<th>Slightly useful</th>
<th>Moderately useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary and Response</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Short Synthesis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Denman Trip &amp; Report</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Poster</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Long Synthesis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

2. Please rate your level of enjoyment of the writing tasks in this course.

<table>
<thead>
<tr>
<th>Writing Tasks</th>
<th>Not enjoyed</th>
<th>Slightly enjoyed</th>
<th>Moderately enjoyed</th>
<th>Very much enjoyed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary and Response</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Short Synthesis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Denman Trip &amp; Report</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Poster</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Long Synthesis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

3. Please rate the level of difficulty of the writing tasks in this course.

<table>
<thead>
<tr>
<th>Writing Tasks</th>
<th>Not difficult</th>
<th>Slightly difficult</th>
<th>Moderately difficult</th>
<th>Very difficult</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summary and Response</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Short Synthesis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Denman Trip &amp; Report</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Poster</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Long Synthesis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

4. Please rate the usefulness of each of the writing tasks/activities in composing your Short Synthesis?
<table>
<thead>
<tr>
<th>Tasks/Activities</th>
<th>Not useful</th>
<th>Slightly useful</th>
<th>Moderately useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Topic proposal</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Outline of Short Synthesis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Tutorial</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Teacher written feedback</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

5. Please rate the usefulness of each of the writing tasks/activities in composing your Long Synthesis?

<table>
<thead>
<tr>
<th>Tasks/Activities</th>
<th>Not useful</th>
<th>Slightly useful</th>
<th>Moderately useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Annotated references</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Outline of Long Synthesis</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Peer review</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Tutorial</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Teacher written feedback</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

6. Please rate the usefulness of the class activities and instruction in developing your ability to write academic synthesis papers.

<table>
<thead>
<tr>
<th>Activities/Instructions</th>
<th>Not useful</th>
<th>Slightly useful</th>
<th>Moderately useful</th>
<th>Very useful</th>
</tr>
</thead>
<tbody>
<tr>
<td>Example Essay</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Example Outline of the reading</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(e.g., Jared Diamond outline)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outlining synthesis paper</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>structure (e.g., hook, background, thesis etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Techniques for writing</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>introduction and conclusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(e.g., use a quote; tell a story; shocking statistics etc.)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reporting Verbs</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Quote/Paraphrase/Summary Sandwich</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>APA Citation Tips</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Collaborative reading activities</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>(e.g., travelling teacher)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix E: Pre-course Interview Protocol for the Teacher

I. The teacher’s background

1. Could you tell me your educational background? What did you study in college and graduate school?

2. When did you begin working with L2 students? What courses have you taught L2 students so far?

3. How long have you been teaching L2 composition courses? What training have you had with regard to L2 writing instruction?

II. The teacher’s belief of writing instruction and synthesis in specific

4. Tell me about your feelings regarding the teaching of synthesis writing. Do you like teaching it? Why? Do you feel it is important? Why?

5. How do you define synthesis? What are the key components of synthesis writing? How is it similar to and different from other types of writing (e.g., writing that students have done in 1901)? What do you think are the characteristics of a good synthesis?

6. What is the role of reading instruction in teaching synthesis writing? Based on your teaching experiences, what are the common problems of L2 students’ synthesis writing?

7. How would you describe your approach to teaching synthesis writing (and writing in general)? What instructional strategies do you view as critical to teaching synthesis writing (and writing in general)?

8. When you read and give feedback to a student’s synthesis paper, what do you look for? What is your approach to responding to student papers? Why do you take this approach?

9. What are your general goals of teaching synthesis writing? (Prompt for learning to work with sources, deep understanding of the topic, developing analytical writing skills etc.) What do you hope the students to learn from 1902 course?

10. If you were to guide a new teacher in teaching synthesis for this course, what advice would they give to that new teacher?
Appendix F: Mid-course Interview Protocol for the Teacher

I. The teacher’s background follow-up

1. Could you tell me a little bit more about your experience teaching Composition I and II at XX University? What was your student population? How were those composition courses similar to or different from this course?

II. The teacher’s reflection about the short synthesis teaching unit

2. Now that you have taught the short synthesis paper, tell me about what you wanted your students to take with them from this unit and the extent to which you feel you were successful/less successful. How do you know?

3. You have designed and implemented a series of instructional activities and writing assignments. Can you list others that I missed out in the following table?

<table>
<thead>
<tr>
<th>Instructional activities</th>
<th>Writing assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>➢ Free writing</td>
<td>➢ FWT-1 Summary Response</td>
</tr>
<tr>
<td>➢ Citation Tips</td>
<td>➢ SSP Planning Sheet</td>
</tr>
<tr>
<td>➢ Model Essay</td>
<td>➢ FWT-2 Topic Proposal</td>
</tr>
<tr>
<td>➢ Outlining structure</td>
<td>➢ SSP Outline</td>
</tr>
<tr>
<td>➢ Listing writing strategies for intro &amp; conclusion</td>
<td>➢ SSP Draft 1</td>
</tr>
<tr>
<td>➢ Netspeak activity</td>
<td>➢ SSP Draft 2</td>
</tr>
<tr>
<td>➢ QPS Sandwich</td>
<td>➢ SSP Final Draft</td>
</tr>
<tr>
<td>➢ Qualifier activity</td>
<td></td>
</tr>
<tr>
<td>➢ Transition and Conjunctions</td>
<td>Note: FWT stands for Focused Writing Task, SSP stands for Short Synthesis Paper</td>
</tr>
</tbody>
</table>

Note: QPS stands for Quote, Paraphrase, Summary

4. Can you share with me how the above activities and assignments fit into the course as a whole? Which activities and assignments do you think better facilitate students’ synthesis writing?

5. For the coming Long Synthesis Paper, how do you plan to return to some of the above activities/assignments? What activities/assignment do you plan to add in the next teaching unit of the Long Synthesis Paper?
6. How is the discussion of readings related to synthesis writing or other parts of your curriculum? How is the Denman research forum report fit into the teaching of synthesis writing?
Appendix G: Post-course Interview Protocol for the Teacher

I. The teaching component

1. Now you have this course for two semesters (six times in total), can you talk about your understanding of synthesis? What is your overall teaching approach to synthesis writing in this course?

2. Tell me about your most successful experience teaching synthesis writing. Why do you think it is successful?

3. How has your teaching evolved over time (particularly from short synthesis to long synthesis)? Describe some of your more memorable events in teaching synthesis writing (times when it went exceptionally well and times when the instruction did not go well).

4. What is the role of reading instruction in teaching synthesis writing? How is synthesis writing related to the readings you assign or other parts of your curriculum?

II. The learning component

5. Now that you have taught the entire semester, tell me about what you wanted your students to take with them from your class and the extent to which you feel you were successful/less successful. How do you know?

6. What do you think the student’s native language/L1 might play in learning synthesis writing?

7. Please take one of the more successful papers and talk through what the student is doing with synthesis. What are the strengths of the paper? Its problems? What continuing growth would you like to see as this student continues to develop as a writer?

8. Please take one of the less successful papers and talk through what the student is doing with synthesis. What are the strengths of the paper? Its problems? What continuing growth would you like to see as this student continues to develop as a writer?
Appendix H: A Sample of Classroom Field Notes

Date: 2/14/2014 Friday
Course: 1902
Week 5
Instructional Unit 10: Free writing, Organization of Synthesis Paper and Example Essay (80 minutes: 9:35-10:55am)

Abbreviations
T: Teacher
SS: Students
SSP: Short Synthesis paper
LSP: Long Synthesis paper
SW: Sourcework (textbook)
Culture: reading book

Notes
New row in table: New instructional episode begins
Underlining & Italicized: Description of instructional episode
Reference to the textbook and reading: SW and Culture
Reference to instructional material or classroom artifact:
Handout #16 Free writing rules
Handout #17 Guidelines of Short Synthesis (Appendix I)
Handout #18 Citation Tips
Handout #19 Organization of Synthesis Paper (Appendix J)
Handout #20 An Example Essay (Appendix K)

<table>
<thead>
<tr>
<th>Time</th>
<th>Observation Notes</th>
<th>Methodological Notes</th>
<th>Theoretical Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>9:37</td>
<td>T takes attendance and shows SS grammar comic, which is about spelling.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Time</td>
<td>Activity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>--------------------------------------------------------------------------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9:40</td>
<td>Free writing to prepare first draft of SSP</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T reminds SS the rules for free write. T projects the four rules on the</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>screen–Handout #16. T asks SS to another free write.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T explains the guideline for free write as follows:</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>T: basically what I want you to is practicing making your first draft.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ok? You already thought about your topic. You have written your</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>proposal. You have written your outline. Take that outline, what I</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>want you to do is change from outline to … but this is informal, it’s</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>not your real draft. You just, it’s like you are playing with your</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ideas. So take your ideas and put them into sentences. Write in the</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>same order as your outline. So you are just expanding your outline.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>And write what you think, write as if you are talking to a friend. It</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>doesn’t matter whether begin with your introduction or your body.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SS begin to type, except Han and Seung are writing in their notebooks.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ling and Claire open their outline on one side of the screen and type</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>on the other side of the screen.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Jane comes 5 minutes late for class. She has not started writing it</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>yet; rather she is browsing her source articles.</td>
<td></td>
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<tr>
<td></td>
<td>T stands at the corner of the door so that she can monitor whether the</td>
<td></td>
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<tr>
<td></td>
<td>SS are on task or not.</td>
<td></td>
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<td></td>
<td>After about 10 minutes, T stops the students and checks how much SS</td>
<td></td>
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<tr>
<td></td>
<td>have completed their outline.</td>
<td></td>
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<tr>
<td></td>
<td>T: so your paper already started. Just do it. Your paper is almost</td>
<td></td>
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<tr>
<td></td>
<td>done. No, it is actually not that easy. But I hope this is a good start</td>
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</table>

This is the second time the teacher asks students to practice free writing. In the pre interview, the teacher mentioned that she considers free writing as an important tool to practice writing fluency.

In the stimulated recalled interviews, only a few students valued free writing (maybe relate to personality). Most students don’t quite understand the purpose of free write.

Since the class only practices free writing twice, it is possible
as you begin your first draft. So save this. You can call it a spring broad for your first draft.

<table>
<thead>
<tr>
<th>9:51</th>
<th>Discuss the guideline of SSP</th>
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<tbody>
<tr>
<td>T shows SS Handout #17 Guideline of the Short Synthesis Paper on the course webpage.</td>
<td></td>
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<tr>
<td>T: basically, as you write your synthesis paper, you will look at these guidelines to help you know what to do.</td>
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<tr>
<td>T: Can everybody see this? Is it big enough? Too small?</td>
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<tr>
<td>T: First of all, maybe 3-4 pages. I think I was over-zealously, over excited about writing about a longer paper. So 3-4 pages is sufficient for your short synthesis.</td>
<td></td>
</tr>
<tr>
<td>And you have to have two sources. One from either Culture or Sourcework; the second one from OSU library database. Ok? I think we already done that.</td>
<td></td>
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<tr>
<td>This is a suggestion. You also have to include yourself, your personal experience. So you can use your personal experience to begin your ideas and then use evidence from your sources to support your ideas. Or you can do the opposite. What you can do is you can find information from your sources and use your experience to support that information.</td>
<td></td>
</tr>
<tr>
<td>Ming: can we argue, like …</td>
<td></td>
</tr>
<tr>
<td>T: Yeah, you can use your personal experience to refute the information. Absolutely.</td>
<td></td>
</tr>
<tr>
<td>T: For each of your sources, you should have a short summary, a short quote, and a paraphrase. So if you have two sources which you are required to have, you should have six citations, ok? Some of you want to have the third source, you will have nine</td>
<td></td>
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<tr>
<td>that SS may need more practice with free write.</td>
<td></td>
</tr>
<tr>
<td>T explains the requirement of the synthesis paper assignment in detail. For example, one source from course reading; one source from the library database; and most interestingly, she suggests SS include personal experience.</td>
<td></td>
</tr>
</tbody>
</table>
| T explains the requirement of source use for the synthesis paper: one paraphrase,
citations, ok?
Sylvia: so each source we should have three citations? We can’t
have four citations for one paper and two for the other?
T: no, you should have …
Sophia: half half.
T: Half half. If you want to have, maybe you have an article; you
want to have two quotes, and also a summary and a paraphrase.
You can also do that. You can have more, but you can’t have less.
Ming: what do you mean by summary? I mean the topic is not
totally related to whole articles in Culture. Why I need to put the
rest of the article to my paper, which has nothing to do with my
topic? Just part related to …
T: you do not have to summarize the whole essay. Err, you are
always one step ahead.
Ming: Sorry [laugh]
T: no, don’t be sorry. You are always like lead into the next thing.
So here is the difference between summary, paraphrase and quote.
T highlights the part of the handout that discusses the three skills.

T: you don’t have to summarize the whole essay. If there is one
section of the essay that you really like, you can summarize a
paragraph or two paragraphs. Basically when you summarize, you
are interested in the main points of that part. You can summarize
the whole essay, a paragraph or a section. That’s summary.
If you quote, the author says something perfectly. You couldn’t say
anything better than that. They are perfect. That’s exactly the words
that you want. That’s quote.
Paraphrase is … the information is important but you can say it

It seems that T and SS are negotiating the requirement of
synthesis paper, instead of
constructing the notion of synthesis.

S negotiates the requirement of the assignment with T.

S questions the requirement of the assignment. In the
stimulated recall interviews, SS say that
the requirement is too rigid. But in order to
get better grade, they mostly follows the
requirement.

T explains the difference among summary, paraphrase
and quote outlined in the Handout.
<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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</thead>
<tbody>
<tr>
<td>9:56</td>
<td>T explains the steps in Handout #17 and the first draft, tutorials, and schedules. T shows SS Handout #18 Citation Tips.</td>
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</table>

**Discuss the organization of the synthesis paper**

T: what I want to do now is, I have an example of a synthesis paper. And I want you guys to see what another student has done in the past. And what we will do, we will identify all the parts which you have in your outline, ok? Basically, maybe as a review, can you tell me what the parts are in an essay? What I mean is in the beginning what should I have? S: abstract. T: err-hum, in this class we don’t need to write an abstract. Probably you are reading abstracts when you are looking at the database. Every single one has an abstract. Yours don’t need to have an abstract. T: err, what comes after that? S: introduction T: yeah, introduction. [T writes Introduction and on the broad and underline it]. T: Ok, what is in the introduction? Lemon: Hook. T: a hook [T writes hook] and then?---

Discuss the introduction, including the hook, background information, and thesis statement. It is interesting that students recognize that abstract is first section that they usually see in academic article. In other words, SS do make connections between reading and writing. However, T mentions that their synthesis papers do not need an abstract.
S: background information
T: background information [T writes background] then?
S: thesis
S: topic
T: it will state the topic
[T writes topic as one part of the thesis statement].
S: focus
T: You will know the focus, you might not say the focus, but you will know the focus, and what else?
[T writes focus as another part of the thesis statement].
S: supporting XXXX
T: supporting evidence or categories or your points. Great! Ok.

T: what comes after the introduction?
S: body.
T: the body [T writes BODY and underline it].
Body paragraphs; how many paragraphs is your body?
S: three to four.
T: three to four.
S: it depends.
T: the answer is whatever you need. So some of you will need more paragraphs; some of you will need less. Ok, depends on how you order and organize your paper, ok. So there is no rule about how many paragraphs unless your professor or teacher says your essay should have four paragraphs; then you need to have four paragraphs.

Discuss the body, including topic sentence, quote, paraphrase and summary, concluding sentence.

T is problematizing the five-paragraph essay structure by telling SS they can have whatever paragraphs they need.
T: ok, let say ours are gong to have two. So what is the first thing we write in our first paragraph?
S: thesis?
S: points?
S: topic sentence?
T: ok, what you have here are these points. Since we are gonna write two, Point A and Point B. We are gonna write Point A here, topic sentence. I mean your paragraphs will follow the points.
T: what is a topic sentence? Anybody know what a topic sentence is?
T: Wang, do you know?
T: Chen?
Chen: main idea?
T: [laughs] it is like the main idea of this paragraph. So each paragraph you have in your body is gonna have a main idea. That’s the whole point of a paragraph. Some of you in your summary and response, you forgot to indent. Anybody knows indent, right?
T shows indent.
T: the whole purpose of having each paragraph, this is the space [point to the indent] to know you start a new paragraph, is because each paragraph is a different idea, a new idea, a new concept. Ok? So this one the idea is point A. So we are gonna indent and we are gonna have a topic sentence, which is kind of like a thesis but just for that paragraph, right? So the topic sentence only belongs to this paragraph. What does the topic sentence say?
T: it is one sentence, just at the beginning of the paragraph. What does it say?
T: Lee?

SS are learning the meta-language (or abstract language if you would) to describe the organization of synthesis paper.

T further explains the notion of paragraph and what count as one paragraph. I think this is important because SS who are trained to write five-paragraph essays may not know how to break big ideas into smaller paragraphs.
Lee: I think we should tell the readers like what we have written in the thesis point one.
T: Yeah, you are gonna tell thesis point A but it’s gonna more specific to tell them what you are gonna say in the paragraph. It is like a thesis for this paragraph.
T: And in the paragraph, you are gonna have several things. You have quote, paraphrase, and summary. [T writes QPS] What else do we have since you are talking about yourself a little bit?
T: You have your own … thoughts
S: own thoughts.
[T writes writers’ own thoughts.]
T: and the writer is gonna make comments about this quote. And at the end, what are you gonna have at the very end? Kind of like the opposite of this [points to the topic sentence].
T writes conclusion sentence.
T: Ok, so we can have these for point A and point B. If your topic is a little bit complicated, maybe you have two paragraphs for point A; two or three paragraphs for point B. You don’t have to have one paragraph one paragraph. It’s not so straight. Whatever you think you need. Remember each paragraph is one idea. Ok?

T: finally at the end, what do we have at the end of our paper?
S: Conclusion
T: yes, conclusion [T writes conclusion and underline it]. And what do we put in the conclusion?
T: thesis statement.
S: thesis statement. But how?
[T write thesis.]
T: you do put the thesis in the conclusion, but you state it in a different way. Don’t say exactly the same as you did here [point to the thesis statement in the introduction]. So we can say restate the thesis.
[T writes re-state after the thesis.]
T: What else can I put? That’s just one sentence. Your conclusion can’t be just one sentence. It should be substantial.
S: hook?
T: you don’t necessarily need a hook. What you need to do is you need to finish your thoughts. So you can, we can say it final thoughts. [T writes final thoughts]
T: So that could be prediction, prediction for the future. Maybe it could be a suggestion.
S: your hope?
T: your hope, yeah, your suggestion your hope.
T: there is one more, like your final opinion.
T: One thing that is interesting I have seen and I like, sometime somebody’s hook is an interesting story and it leads into all these information. Sometime at the end, the person finishes the story that he/she starts in the hook. So it’s a story you don’t know what it’s gonna happen, you talk about all the research about that topic, and in the end you kind of finish the little story you told up here. [T writes finish a story] you can do that too. All right. Ok. [T finally presented Appendix J: Organization of Synthesis Paper on the blackboard].
Appendix I: Guideline of Short Synthesis Paper

Write an approximately 3-4 page paper based on one of the chapters from *Culture* or *Sourcework* that we have read and on an outside source that you have found on the OSU library database.

You may use your personal experiences as a starting point and use evidence from the article to support your discussion or you may start with information from the articles and support them with your own thoughts.

Present this information in your paper by organizing it like a formal academic paper. In the paper, be sure to include at least:

- one short summary
- one direct quote
- one paraphrase

from *both* the *Culture* or *Sourcework* article and the article from the OSU library database (6 citations in total). You will be expected to synthesize both sources cohesively into your essay. Be sure to have a reference list and in-text citations in APA style.

There are three ways of using sources to support a point in your paper. These are **summarizing, quoting, and paraphrasing**. Following are some tips from the book, *Real Essays* (Anker, 2009):

- **Summarize** when the main point(s) of a passage, paragraph, or article are enough to support your point.
- **Quote** when the original words are special or unique; or when the quote will have a greater effect in the original words; or when you want to prove that the person you are quoting actually made the statement.
- **Paraphrase** when passages are 1-3 sentences long; or the complete passage is relevant to your point, or the information is more important than the way in which the idea is expressed.

**STEPS:**

1. Begin with a research question and a working thesis statement. It is common for research questions to change, but they usually center on the same idea. You may change yours as necessary.
2. Review your sources and select supporting evidence.
3. Write an outline.
4. Write a full first draft of your paper with a reference list (use EasyBib to help you).
The first draft will only be graded as a completion grade (i.e., don’t worry too much about grammar and vocabulary). After you receive my written feedback, we will have an individual tutorial where we will discuss any writing issues and where you can ask questions. After that, you will revise the paper; then submit it for a grade.
Appendix J: Classroom Artifact of the Organizational Structure of Synthesis Paper
Appendix K: A Model Essay

Dressing Style Differences of American and Chinese College Students

XXX

When I was talking with my mom through Facetime a couple weeks ago, she was surprised about what I wore—T-shirt with the OSU logo, sports shorts and flip flops. I have never dressed like this in China. Then I started to realize that my dressing style was becoming more and more American. It is a tradition that Americans like wearing T-shirts and hoodies with school logos in their universities. American students also usually wear shorts, jeans and sportswear which are almost in the same style. There is nearly no clothes with school logos in China since Chinese students do not have this kind of tradition. Male students in China wear the clothes which is close to the Americans. However, sportswear is not so popular among Chinese students, especially females. What they wear is close to fashion. Clothing style of American college students is leisure and simple, while that of Chinese students is stylish and complex. Why is dressing style of college students so different from American to Chinese? It may be caused by their daily habit, fashion consciousness and expression of esthetic view.

The habit and custom differences in students’ daily life may be related to their dressing styles. Morris (1977) states that people must wear clothes with social signals which often tells a related story about it. In other words, clothes is usually related to its social background. In China, students are asked to wear school uniforms for the whole twelve years until university. Clothing without rules or requirements is really a great freedom for them. The eagerness of Chinese students to wear different clothes from others’ could be imagined. American students do not need to wear school uniforms except for some of them in private schools. Maybe they do not think it a big deal if wearing the same clothes as others’. What’s more, American college students prefer to wear casual and comfortable clothes. A lot of American college students work out to keep fit in their spare time. What they wear is suitable for what they usually do. In China, most students, especially many females, do not have scheduled time to work out. Something found in “Researches on the purpose and behavior in physical exercise of Chinese students” (University of Xinjiang & Wuhan Sports College, 2012) is that
because of the heavy burden of school work, only about one thirds of students work out more than three times a week in China, and most students do not do exercise spontaneously. We can know from the research that many Chinese students may do not like sports activities very much. Since a lot of Chinese college students do not work out very often, they can wear the designable and complex clothes which are not good for exercise anytime they want. The habits and life background affect a lot on the dressing style of college students.

With the basic requirement of clothes, how do they choose the exact type of clothes to wear? How conscious students are about the fashion trend is another cause of the huge differences of dressing styles. One of my American friends told me that the fashion trend is not so important in their daily life. People just wear what they want to wear. In China, female students usually buy some fashion magazines. Some Chinese students even buy two or three fashion magazines every month. Chinese fashion magazines, like Mina and Vivi, almost get ideas from Japanese ones. The fashion styles are mostly the same in Asia, which can be mostly described as cute and complex. Most Chinese students who buy fashion magazines also tend to buy the clothes introduced in magazines. Then, something interesting happens. If the magazine once introduces a shirt with lace, you will find something in common of students’ the clothes for the whole season—lace. According to the magazines, what people wear also changes from season to season. That’s why the clothing style of Chinese students is so complex. It may be different from every season and every year. American students may also read fashion magazines, but maybe not many of them dressed like the models in the magazines, which is quite popular in China. Some western style fashion style magazines, like Vogue and Elle, can be also found in China. However, this comfortable and simple style is not as popular as the Asian one among Chinese students. The esthetic views of college students have almost been shaped.

Dressing styles of American and Chinese college students may also be determined by their esthetic view, or that is to say what kind of clothes is attractive in their view. For the reason that the dressing styles of males are so close, the clothing of American and Chinese female students will be a good example. On weekdays, American female students are mostly in sportswear which makes them look healthy and keen on sports. On weekends, they usually dress up just as most Chinese students do everyday to look different and stylish. The clothes they choose help to show the good shape of their bodies and make up the short parts. In “On The Universality of Attractions”, Coren Apicella (2011) wrote that “Evolutionary theory provides a strong framework for examining attractiveness preferences. Such a framework predicts that traits signaling fitness benefits
should be universally preferred.” (Future Science, pp.100) It seems that fitness has been viewed as a kind of beauty by humans for a long time. In other words, the esthetic view of humans should be the same naturally no matter what environments or countries they are in. Although the clothing styles are different from American to Chinese students, their intention of trying to be attractive is same. The sportswear of Americans indicates that they are in the process of being fit and in good shape. It shows a feeling of energetic and young. The stylish clothes of Chinese tries to show the part in good shape of their bodies and cover the short one. Females try to make themselves look nice and in fitness. The weekend fashion dressing style of Americans that is close to Chinese one makes the assumption that their views on being attractive are the same more convinced. Since people’s esthetic view is almost the same, it is American and Chinese college students’ different expressions of esthetic views that cause the differences of dressing styles.

Dressing styles of American and Chinese college students are so different from each other. The clothing style of American is simple while the one of Chinese is complex. Their daily habits may effect on the purpose and requirement of clothes; the fashion consciousness may have an influence on the choices of clothes; the expression of esthetic views may relate to how to choose an attractive clothing style. Although American and Chinese college students have a lot in common about the views on attractiveness and beauty, what they choose to wear still varies. Dressing style differences as a part of culture shock between the western and the eastern may caused by many other further reasons which remain to be studied. Learning more about this topic may be helpful for people to understand some of these two cultures and helps some clothing brands to develop a wider market.

**Work Cited**


# Appendix L: Long Synthesis Paper Grading Rubric

## Content – 40 points

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<table>
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<tr>
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<tr>
<td>1</td>
<td>The introduction is interesting and gets readers’ attention. It is one paragraph (less than 1 page) and contains a hook, background information, and the thesis.</td>
<td>/10</td>
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<tr>
<td>2</td>
<td>The analysis and discussion of the topic are convincing and logical.</td>
<td>/10</td>
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<tr>
<td>3</td>
<td>Information from outside sources is properly paraphrased, summarized, and/or quoted. At least 2 articles from class reading and 3 outside academic articles are used. From the class readings, there is a total of 2 quotes, 2 paraphrases, and 2 summaries.</td>
<td>/10</td>
</tr>
<tr>
<td>4</td>
<td>There is a thoughtful conclusion that inspires readers and gives them ideas to continue thinking about your topic.</td>
<td>/10</td>
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Comments about the content:

## Organization – 50 points

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<tr>
<td>5</td>
<td>A clear thesis statement is included at the end of the introduction (all main points are included).</td>
<td>/10</td>
</tr>
<tr>
<td>6</td>
<td>The organization of the paper follows the thesis statement.</td>
<td>/10</td>
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<tr>
<td>7</td>
<td>Paragraphs are well developed, have clear topic sentences with relevant supporting information (citations from sources, examples, personal experiences) and end with concluding sentences/transition to the next topic.</td>
<td>/10</td>
</tr>
<tr>
<td>8</td>
<td>The information in the paper flows logically and smoothly (coherence) through appropriate use of transitions and conjunctions.</td>
<td>/10</td>
</tr>
<tr>
<td>9</td>
<td>The paper is formatted in proper APA style (in-text citations, reference list, page number, headings, font, etc.)</td>
<td>/10</td>
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Comments about the organization:

## Grammar and Spelling – 20 points

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<td>10</td>
<td>The paper contains accurate grammar (e.g. verb tenses, subject-verb agreement, parallelism, and word form). Specific vocabulary and correct spelling are evident.</td>
<td>/10</td>
</tr>
<tr>
<td>11</td>
<td>The paper is concise and the length is 5-8 pages of text.</td>
<td>/5</td>
</tr>
<tr>
<td>12</td>
<td>Formal style/language is used (avoiding 2nd person, “I think” phrases, and words like nowadays,” “things,” “stuff,” etc.).</td>
<td>/5</td>
</tr>
</tbody>
</table>

Comments about grammar, spelling and style:

<table>
<thead>
<tr>
<th>TOTAL</th>
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