BRIDGING THE GAP BETWEEN ESL COMPOSITION PROGRAMS AND DISCIPLINARY WRITING: THE TEACHING AND LEARNING OF SUMMARIZATION SKILL

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Summary writing has long been perceived as a core academic literacy skill necessary for students studying in American universities to achieve academic success, yet limited research has been conducted with regards to the actual summary writing tasks that L2 writers encounter across the curriculum. To fill in this gap, this qualitative study examined the summary writing experiences and practices of a group of international undergraduate students as they navigate across different disciplinary courses. The major findings of the study will be discussed in this chapter, and pedagogical implications outlined.

In Anglophone universities, reading-based writing tasks are commonly assigned (Bridgeman & Carlson, 1984; Hale et al., 1996), and students are often expected to effectively work with source texts in various assignments, such as reading responses, critical reviews, and research papers. Of the major source-based assignments, summary writing has long been perceived as a core academic literacy skill necessary for students studying in American universities to achieve academic success. Because of this, ESL writing programs, which are designed to socialize second language writers into the target academic community, often incorporate summary writing as an important component of the curriculum. ESL students enrolled in such courses are provided with ample opportunities to practice summarization skill based on the readings selected by the writing teachers. Despite this central focus on the teaching of summarization, however, ESL writing courses often do not seem to take into consideration L2 writers' actual uses of summarization in disciplinary courses. In ESL writing courses,

the readings chosen for summary writing are usually unrelated to students' academic backgrounds, and the criteria used for the evaluation of summaries are largely a result of the writing teachers' own understanding of the genre. In other words, summary writing is often taught as a "context-free" skill in ESL writing programs.

Recent research on second language writing has started to explore the relationship between ESL writing programs and L2 writers' literacy experiences in their chosen disciplines (e.g. Leki, 2007). Nevertheless, few studies have examined the discrepancies in the teaching and learning of specific academic writing skills. To fill in the gap, this study examines summary writing experiences of a group of international undergraduate students in various disciplinary courses. By documenting the focal participants' summarization practices across the curriculum, this qualitative study seeks to unveil the connections (or disconnections) between ESL composition programs and content classes in terms of summary writing, hoping to shed light on how summarization could be more effectively taught in second language writing courses. In this chapter, I will review key literature on summary writing to contextualize the study, and then introduce the research design, including the setting, the participants, and methods for data collection and analysis. Next, I will present major findings in relation to international undergraduate students' summary writing experiences across the disciplines, and outline pedagogical implications accordingly.

REVIEW OF THE RESEARCH

The importance of summary writing in higher education has been emphasized by a number of second language writing researchers (Kirkland & Saunders, 1991; Yang & Shi, 2003). As is generally agreed by university writing instructors, summary writing constitutes as "a gateway skill" (Frey, Fisher & Hernandez, 2003, p. 48) for undergraduate as well as graduate students to complete various types of source-based writing assignments in university settings. Also, summarization skill itself functions as an effective learning strategy for students to synthesize information from source texts and improve reading comprehension (Davis & Hult, 1997; Friend, 2001; Rinehart, Stahl & Erickson, 1986; and also see Center & Niestepski's chapter [this volume], in which the L2 students they interviewed talk about using summary writing to help them read and learn course material.) Conceptualizing summarization as an important literacy skill in English academic writing, writing researchers have examined novice writers' summary writing practices from different perspectives. The complexities of this particular reading-based writing task have drawn

focused attention from researchers. In order to produce quality summaries, students need to interact with the source texts recursively, constantly reflecting on the reading materials and making decisions regarding the level of importance of information (Kim, 2001; Rinehart & Thomas, 1993). In other words, writers need to develop an accurate comprehension of the source texts and distinguish between the main substance and trivial details to produce a good summary. In addition, students are also expected to explain key points of the source texts in concise language, which is particularly challenging for second language learners with developing English proficiency. As Hill (1991) explains, "[t]he process of learning to write summaries is a long one, accomplished in stages as text-related variables interact with the developing writer" (p. 539).

Acknowledging the complexities of summarization, second language writing researchers have investigated major difficulties and challenges that novice academic writers encounter while working on such tasks. Johns and Mayes (1990), for instance, examined the processes of summarization by comparing the summaries produced by writers with high and low English proficiency. Their findings showed that although students with a lower level of English proficiency were more likely to rely on the original wording of the source text, both groups of writers struggled with generating main ideas in a condensed manner based on the text. Another study by Johns (1985) also demonstrated that although less proficient English writers were more inclined to focus on sentence-level information and infrequently combined idea units at a macro level, both novice and more experienced college writers distorted the ideas of the source text to a certain level and included personal comments in their summaries, the practices of which were inconsistent with the general expectations of academic summaries.

Kim (2001) explored Korean university students' summary writing practices in English. According to Kim, the participants most frequently utilized deletion as a strategy to generate a condensed version of the source text, and the EFL learners found it challenging to generalize and re-organize information to present main ideas. Also looking into summary writing processes, Yang and Shi (2003) investigated how six first-year MBA students (three Chinese ESL learners and three native English speakers) approached a disciplinary summary task that involved the reading and critical examination of a company case. Their findings suggested that the participants employed a wide range of composing strategies while working on the task, and students' previous learning experiences influenced their summarization performances. According to Yang and Shi (2003), among the six participants, those who had background knowledge in the content area and previous experience writing about topics within the discipline were in general more confident of and skilled in completing the task,

whereas those who were relatively new to the field found the summarization task to be difficult. As graduate students have already chosen an area of study to pursue and are commonly expected to demonstrate their competence of providing meaningful discussions about disciplinary specific topics, content knowledge thus becomes an important variable that determines the level of success of disciplinary summarization.

Another challenge that novice academic writers often experience while completing summarization tasks involves using their own words to explain the meaning in written form. Keck (2006), for example, explored students' paraphrasing practices for summary writing. By comparing the paraphrasing behaviors of native-English speaking students and ESL writers, Keck (2006) showed that ESL writers relied on the original wording of the source texts more than their American counterparts, highlighting the role that language proficiency plays in influencing writers' summary writing abilities. Also looking into the relationship between language competence and summary writing, Baba (2009) examined one particular aspect of lexical proficiency and how it affected L2 writers' summarizing abilities. According to Baba (2009), the participants' competence of defining words and manipulating synonyms played a critical role in determining the quality of their summaries. Comparing original source texts and students' summaries, Basham and Rounds (1984) found out that writers seemed to have difficulties maintaining the original tones of the authors through appropriate manipulation of verb tenses, adverbs and modal verbs. Also exploring wording and meaning changes, Hood (2008) analyzed the processes of summarization based on brief notes taken along the source text. The researcher showed how the seemingly straightforward process is in fact a complex one, where writers needed to attend to subtle meaning implications of changed wordings while using their own words to express meanings.

These studies have all demonstrated multifaceted factors that may influence the quality of the final write-up of a summary. As Kirkland and Saunders (1991) aptly point out in their article, both internal constraints (e.g. language proficiency of the writers, knowledge about the content of the readings, cognitive and metacognitive skills to distinguish between important and trivial information and to control the processes of summary writing) and external constraints (e.g. the types of materials being summarized, the nature of the assignments, time limit, the target audience of the summaries) affect how the writers approach various summarization assignments. Moreover, these internal and external constraints "are all interactive" (Kirkland & Saunders, 1991, p. 114), which further complicates summary writing processes.

Considering the challenges that college students experience while working on summarization tasks, writing researchers have also examined potential teaching

strategies that can help learners to develop an adequate ability of summary writing. Day (1986) contended that when dealing with challenging tasks such as summarization, writers would benefit from explicit instruction of specific writing strategies integrated with self-regulatory skills that help to monitor their own performances (e.g. checking and paying attention). Friend (2001) conducted a study to examine how explicit instruction on reading strategies may help novice writers to develop the ability of differentiating between main ideas and details in source texts. The participants of the study included three groups of college writers: one group was taught the strategy of argument repetition, a second group learned the strategy of generalization, and a third group (the control group) was asked to rely on their personal reactions to the texts while identifying main ideas. The results suggested that both experimental groups outperformed the control group in terms of the ability to distinguish between different levels of information. Based on the findings, Friend (2001) pointed out that explicit instruction on generalizing information of source texts is crucial in helping novice academic writers to develop the ability of going beyond the exact wording and understand the gist. Also advocating for explicit instruction, Casazza (1993) emphasizes the importance of directly showing students how to interact with texts and engage in meaning construction when summarizing. Cox, Bobrowski, and Maher (2003) also support explicit instruction on summary writing by sharing their experiences about how to teach business majors to critically evaluate source texts and identify key claims and ideas.

Kirkland and Saunders (1991) maintain that when teaching summarization, teachers may need to first attend to the instruction of essential study skills such as note taking in order to help learners to keep track of the different levels of information presented in the texts. Ko (2009) investigated the effectiveness of a module used to teach summary writing. The quantitative and qualitative findings showed that the Korean university students who participated in the study improved in terms of their ability to distinguish between different levels of information, and developed a more positive attitude towards their own ability of summary writing and the importance of learning to summarize effectively. Radmacher and Latosi-Sawin (1995) explained that engaging students in meaningful comparisons of summaries of different qualities would help learners to develop a clearer understanding of the criteria often used to evaluate summaries. The authors also advocated for the use of disciplinary reading materials as source texts for summarization tasks in order to expose students to authentic writing contexts that they are likely to encounter in different courses.

Although the extant literature has generated insights about the challenges that novice academic writers (ESL students in particular) encounter when working on summarization tasks and how writing courses could help learners

to develop the ability to summarize, many of the studies are based on specially designed summary tasks in writing programs, with insufficient attention directed to the actual types of summarization assignments that students are expected to complete in disciplinary courses. To fill in the gap, the study reported here examined the summarization practices of a group of ESL undergraduate students studying in various disciplines at a US university.

METHODS

To shed light on ESL undergraduate writers' summarization experiences across disciplinary courses, this qualitative-oriented study tracked six focal participants pursuing undergraduate degrees at a comprehensive mid-western US university. The following research questions guided data collection and analysis.

- In what types of summarization tasks did the ESL writers engage in different disciplinary courses, including their major courses, general education courses, and elective courses? What expectations are commonly associated with such tasks?
- What are the participants' perceptions of the usefulness of summarization skill across the disciplines?
- What are the major connections and disconnections between what is taught in the ESL writing program and disciplinary expectations regarding summarization?

The study took place in a mid-western US university, which features a large international student population from Asian countries, China and South Korea in particular. The university offers a three-course sequence of ESL writing program that aims to help these international students develop an adequate understanding of academic writing so that they can successfully handle writing tasks commonly assigned in disciplinary courses. All incoming international undergraduates are required to take a placement test at the beginning of their studies and are then placed into one of the three courses according to their writing proficiency reflected by the test. Although there are a number of students who need to take the lowest-level course, the majority of international undergraduates are able to skip it because of their quality performance in the placement test and directly start with the latter two courses in the sequence. Both of these courses focus on source-based writing, with summary writing constituting a major component of the curricula, although in the most advanced course, summarization is often taught in relation to research paper writing.

The participants for this study were all students who took one or two required ESL composition courses with me in the past year. I first distributed a

short survey that elicited information from a large number of students regarding whether they had experiences with summary writing in their disciplinary courses and invited those who had such experiences to participate in the study. Altogether, six core participants—Yvonne, Lee, Carla, Leslie, Gloria, Cherry (all pseudonyms)—completed the whole project with me. Lee was originally from Korea, whereas the rest of the participants were from China. Of the participating students, Yvonne and Lee were studying accounting, Carla was a finance major, Leslie was double majoring in mathematics and economics, and Gloria and Cherry were both studying in the architecture program. All the participants were international students who were relatively unfamiliar with English academic writing in general and summarization in particular before taking the ESL composition course. After recruiting the participants, I conducted semi-structured interviews with them, seeking information about the types of summarization assignments they were required to complete in various disciplinary courses and asking the participants to explain in detail the purposes and nature of the summarization tasks.

I also collected relevant documents, such as course syllabi where requirements about different writing tasks were explained as well as students' summarization products. In addition, I examined the course syllabi of the ESL writing courses regarding the teaching of summary writing, aiming to identify connections and disconnections between what participants did in the writing program and in different content courses. For data analysis, I adopted the commonly used "thematic analysis" (Glesne, 2006, p. 147), and continuously created and refined codes and categories based on my research questions.

FINDINGS

In this section, I briefly report major findings based on my analysis, focusing on three trends regarding summarization practices in disciplinary courses, namely, the incorporation of summarization as a prerequisite skill for source-based writing assignments, the diverse formats of source texts in different courses, and the extensive use of summarization as a tool for learning.

Summarization as a Prerequisite Skill for Source-Based Writing Assignments

As reported by the participants, summarization constitutes a threshold skill that they are expected to master in order to complete such larger writing tasks as article critiques, reading responses, and analysis papers commonly assigned in

general education courses. As one participant, Leslie, said in the interview: "You just have to know how to summarize, because it's the beginning of almost every writing assignment." Leslie had abundant experiences with summary writing in a variety of courses that she took across the curriculum. In the introduction to design course that she took as an elective, for example, she was asked to read extensively on chosen topics according to the syllabus, and respond to the readings. In one week, she was asked to look for information about several designers, choose one to introduce his/her life and work, and then discuss how the person influences her thinking about design. The following guidelines were provided in the syllabus outlining the expectations of the assignment:

> ... choose one of those three designers and write an in-depth essay about their life, work, contributions, etc. Also include your own thoughts about their life, work, contributions, etc. Length is at your discretion, but remember you are in college now.

As the requirements show, this particular assignment features a mixture of summary writing and the expression of one's own ideas based on source information. In order to discuss how a particular designer's life and work impacted her, Leslie needed to know about the person first and introduce him/her. In the theater course that she took to fulfill the general education requirement, she was also required to explain her reactions, but this time based on show performances that she was expected to watch. To contextualize her own thoughts, she would always present a short summary paragraph in the beginning that briefly described the content of the performances, even though the theater teacher did not provide explicit requirements regarding the necessity of a summary paragraph. According to Leslie, even though the teacher did not specify this, she believed that a short summary of the performances at the beginning of the response paper was indispensable, since it would help readers who were not familiar with the performances to understand her later discussions.

Leslie's experiences with summary writing across the curriculum were quite representative of those of other participants who took different courses than she did (e.g. biology, food science and technology, history, economics, women's studies, architecture —many of which serve to fulfill the general education requirement). In these courses, students were frequently asked to read about certain topics in relation to the content of the courses, and discuss their ideas and perspectives accordingly. Due to the different focuses of the courses, these assignments often took on different forms. In her biology class, for

example, Yvonne was asked to evaluate *New York Times* articles that introduced current developments in biological research and related controversies. In one assignment, she read an article about whether pregnant women in labor should follow a restricted diet, and then expressed her understanding of this issue from a Chinese perspective. (See Hirsch [this volume] for examples of writing projects in WID courses that include summary writing.)

Despite the various formats of the assignments, the essential task is quite similar, that is, to express one's informed opinions about certain topics based on source texts. Because of the central role reading plays in most of the disciplinary courses, summarization, which entails adequate reading comprehension, has become a tacit need for source-based assignments, although very few instructors directly explained this to the participants of the study. Although the ability to understand the given source texts seems to be assumed across the disciplines, L2 learners, who are quite unfamiliar with the content of the materials and are still developing their English language proficiency, often struggle with reading comprehension when being asked to complete summarization tasks. As the participants explained, they tended to spend a long time reading the assigned texts in order to make sure that their comprehension was accurate. (For a longer discussion of the challenges L2 students face when completing readings assigned in undergraduate US courses as well as strategies they develop to negotiate these challenges, see Center & Niestepski [this volume]). Sometimes, even after they tried to read the materials multiple times, they still felt uncertain about what the texts were discussing. As a result, the participants had to rely on guessing to some extent while working on their summaries, which inevitably influences the accuracy of the final write-ups.

When asked whether what they had learned in the ESL writing courses about summary writing was helpful for them to complete disciplinary writing tasks, the participants agreed that the content covered in the writing courses enabled them to understand the genre of summary in English, which was relatively unfamiliar to them. Leslie and Gloria, for example, were completely new to the concept of summarization before they took the ESL writing courses. As both of them explained in the interviews, they had never been asked to complete a summary task in their native Chinese language and had no previous knowledge about how to write a good summary. In this sense, the ESL writing courses provided basic information about summarization that functioned as building blocks for the L2 writers to deal with various disciplinary summarization tasks. Despite the general satisfaction with the content covered in the ESL writing courses, all participants also explained that they would have liked the writing classes to focus more on how to generate key ideas from long texts instead of the writing conventions associated with summary writing (e.g. the use of topic

sentences and reporting verbs). As the participants described in the interviews, when evaluating the summary assignments, the disciplinary course instructors usually emphasized the accuracy of the information and often did not pay too much attention to their language style in which the summaries were written (See Zawacki & Habib and Ives, Leahy, Leming, Pierce, & Schwartz [this volume] for further discussion of faculty expectations for L2 writers).

DIVERSE FORMATS OF SOURCE TEXTS

The important role of summarization in disciplinary courses is probably not news to writing instructors; yet what is quite unexpected is the wide range of source texts that students are expected to work with across the curriculum. Although students are always expected to submit their summaries in written form, the source texts assigned for the summary tasks are not necessarily printed articles or books. Instead, students are often asked to summarize a variety of sources, including guest lectures, movies, video clips, paintings, and architectural models. One of the participants, Gloria, who majored in architecture, was asked to summarize guest lectures given by invited architects as well as her major learning from the talks. In such situations, what she needed to do was to listen to the lectures carefully, identify important points covered by the guest speakers, note them down in succinct manners, and write them up after the lectures. According to Gloria, such tasks were challenging in that she had to attend to both listening and note taking at the same time. As she explained in the interview, although she had studied in the United States for quite some time, she still encountered trouble listening to native-speaking professors and lecturers, and often had to spend extra time in her head to decode and digest the information from lectures. Often times, new vocabulary, discipline-specific terminologies, and cultural jokes that frequently appeared in the guest lectures caused her additional difficulties to understand the information. Consequently, she found it hard to keep up with the fast speed and unfamiliar content of the lectures. Also, since each of the lectures lasted for an hour, Gloria found it extremely demanding to keep track of the gist and distinguish between different levels of information. As she vividly described, "The lectures are long, and my mind begins exploding, and I just cannot tell which is the gist, which is the detail." (See Center & Niestepski [this volume] for ways in which L2 students use reading to better understand course lectures.)

Because of these major challenges, Gloria had to make the best use of what she was capable of doing when working on the summarization tasks: she only selected points that she was relatively confident of to include in the final write-up. As Adamson (1990) points out, note taking is a cognitively and linguistically

challenging task for most ESL students, since learners need to comprehend the information obtained from lectures, differentiate between the gist and details, identify certain logic that guides the presentation of the information and then concisely write down the most important points. ESL students, whose English proficiency is still developing, will naturally confront major difficulties in trying to understand the terminology-heavy lectures as well as finding the most effective language to note down important information. As Adamson (1990) aptly explains, faced with the challenges of note taking, ESL learners often "had to make a trade off between understanding what the teacher was saying and taking notes" (p. 71), which inevitably led to partial comprehension of the lectures.

Leslie also had the experience of working with multimedia source texts in her elective dance and design classes. In her dance class, she was asked to watch short video clips that demonstrated key movements of certain styles of dancing, and describe them in a written summary. As Leslie explained, the content of the video was not particularly challenging, since the information presented in a visual manner was straightforward enough for her to understand. Also, since the key movements demonstrated by the dancers were quite obvious, she did not experience much trouble identifying the major movements that characterize a particular dance style. Yet, she still found the task quite demanding in that it was difficult for her to transform the visual information that she obtained from the video clips into written English. As she said in the interview, "I can easily describe all the movements in speaking, but when you ask me to write them down, everything is different." According to Leslie, she always had trouble finding vivid words and phrases to describe the artistic dancing movements that she saw in the video clips. Although she got full grades for all the reports, Leslie believed that her summaries were inadequate in capturing the stylistic dancing gestures. As an ESL writer who had taken several academic writing courses, Leslie was still not confident of her ability to complete such summarization tasks.

For second language learners who are developing their English language proficiency, the summarization task itself is already challenging enough; yet, what these writers are expected to do in various disciplinary courses is often more demanding. Although these participants were fairly satisfied with what they had learned in the ESL writing program about summarization, they all discussed how the information introduced in the writing courses is, as Gloria puts it, "a little bookish," and does not transfer easily as they tackle disciplinary summarization tasks based on a wide range of multimedia source texts. With the increasing use of multimedia sources in disciplinary courses, the traditional text-based summarization strategies commonly taught in ESL composition

courses, such as underlining key points, paraphrasing topic sentences, selecting and omitting words from source texts, seem rather insufficient in helping L2 writers to achieve success in summarization tasks across the curriculum.

EXTENSIVE USE OF SUMMARIZATION AS A LEARNING TOOL

Apart from relying on summarization skill to complete various source-based writing assignments, the participants also used it extensively in their studies as an effective way to organize information. Although the students were majoring in different disciplines, they all had to read widely on diverse topics in most courses. Yvonne, for example, was asked to read six books throughout a quarter for her general education women's studies class. Lee, who was an accounting major, often had to read thick textbooks in her major accounting courses. Cherry, an architecture major, was expected to read theoretical articles that explained the rationales behind the design of certain buildings. For them, summarization became an indispensable tool to keep track of all the information obtained from the heavy readings. According to the participants, they were expected to differentiate between the main ideas and less important details in most of the courses that they took. Although the professors might not explicitly ask them to summarize the texts, quizzes were regularly used to assess whether the students had read the required materials and understood the most important points presented in them. Because of this implicit expectation, the participants consciously employed summarization as a study aid to help themselves distinguish between different levels of information. Lee, for example, would take notes while reading her thick textbooks. After reading a page or so, she would write down in her notebook what she considered as key points. To save time, she chose not to compose paragraphs of summaries; rather, she used bullet points to list the most important concepts introduced in the books. As she explained in the interview, "In this way, I get to remember the knowledge better, and I don't have to go back to the whole book when I need to look up something." According to her, the summary notes were particularly helpful for exam preparation, since she normally did not have sufficient time to go through the thick textbooks again towards the end of a quarter when assignments and tests started to pile up.

Similarly, another participant, Carla, also actively used summarization in her reading to take notes; yet, unlike Lee, Carla chose to write her notes down on the margins of the texts. When she was preparing for the discussion sessions of her human resources class, she wrote brief notes (both in English and her native Chinese language) on the margins of the articles that she was assigned to read. She also printed out discussion questions that were provided by the

instructors and wrote down her short responses based on her summary notes. For example, when answering the question "What policies could the firm or the nation implement if they wanted women to lessen their specialization in home production?" she jotted down several points ("provide same or more wages than men; regulate their working time") based on her reading notes. As Carla said in the interview, "I can understand the academic articles more clearly if I use my own words to express the information. If I don't do this, I feel that I don't really get what the authors want to say." As the cases of the participants demonstrate, the skill of summarization permeates their undergraduate studies because of the large amount of reading in which they are expected to engage. Even though course instructors may not require them to summarize all the texts, the participants still did so in their own ways in order to grasp the most important points discussed in the texts. Gloria vividly explained her understanding of the role that summarization plays in her disciplinary courses, "We always do summarizing in various cases, but sometimes we do not even realize that."

DISCUSSION AND CONCLUSION

Based on the findings generated by this qualitative study, it is not unreasonable to conclude that summarization skill does play an essential role in L2 undergraduate students' academic literacy experiences across the disciplines. Since most courses require students to work with source texts, summarization is indispensable for learners to distinguish between the gist and less important details. As the study has shown, summarization functioned as a prerequisite skill for these ESL students to complete source-based assignments, such as article critiques and reading responses. In a variety of courses, students were also expected to work with non-traditional multimedia source texts and express their ideas and perspectives accordingly. In addition, due to the large amount of reading in which they were required to engage, the participants also used summarization as a learning strategy that helped them to organize information obtained from reading materials.

In ESL writing courses, summary writing is often taught as a separate and well defined genre: students are asked to read an article and produce a coherent paragraph of summary. Because it is considered primarily a writing task, ESL composition courses tend to focus more on the final product of the summaries, highlighting the importance for writers to adopt an expected academic style in their write-ups. In disciplinary courses, however, the emphasis of summarization is placed on comprehension, and learners are expected to display an accurate understanding of source texts. Accordingly, disciplinary course instructors

often do not pay much attention to the style in which the summaries were written. Such a discrepancy in the emphasis of summarization in writing and disciplinary courses may serve to explain why ESL students who have learned about summary writing in composition courses still experience difficulties while summarizing disciplinary texts. Although general knowledge covered in writing courses helps L2 writers, who are often unfamiliar with summarization conventions in English (Moore, 1997), to develop some understanding of the task, it seems inadequate for the learners to deal with the often more complex expectations in disciplinary courses regarding summarization.

In order to best help ESL writers to cope with the diverse summarization tasks in disciplinary courses, writing programs need to re-conceptualize summarization as an essential literacy skill apart from teaching it as an important genre. Considering the challenges that L2 writers encounter while reading source texts, ESL writing courses need to place more emphasis on how to interact with texts effectively. To prepare L2 learners for the large amount of reading on various topics expected in disciplinary courses, L2 writing courses also need to take into consideration the range of topics while choosing source texts for summarization tasks. In addition, instead of using reading materials (e.g. stories, newspaper articles) as the only type of source texts, writing courses could incorporate multimedia sources and assist L2 writers to work with them. For example, ESL writing courses could introduce note taking as a particular type of summarization (Kirkland & Saunders, 1991), and help familiarize learners with the situations where they are expected to shuttle between different skills, such as listening and writing, or reading and writing. In addition, writing instructors may need to spend more time teaching embedded summarization to better prepare students for larger source-based assignments that require them to express their opinions based on the summaries.

As for instructors across the disciplines, it is important to develop the awareness that ESL writers, who are still developing their language proficiency in English and who are generally unfamiliar with disciplinary expectations in the Anglophone academic context, often encounter major challenges and difficulties as they work on summarization tasks. Instead of assuming that L2 learners have already developed sufficient reading skills to comprehend source texts and a linguistic repertoire to explain the main points and substance of the material, disciplinary instructors need to provide more specific guidance as they assign summarization tasks. For example, course instructors could provide brief reading guides that outline the general organization of the reading materials to help L2 learners cope with the large amount of reading filled with disciplinary terminologies and background knowledge. Also, worksheets that contain key disciplinary vocabulary would also be beneficial for L2 writers to complete the

write-up of the summaries. (These recommendations for instructor support and guidance are similar to those given by Center & Niestepski [this volume] in their chapter on L2 students' strategies for coping with the heavy reading demands of their courses.) Although the focus of most disciplinary courses is not on writing, explicit instruction about how to approach major writing tasks is still needed to facilitate novice academic writers, L2 learners in particular, to cope with varied disciplinary expectations across the curriculum.

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