CHAPTER 3

"HEY, DID YOU GET THAT?": L2 STUDENT READING ACROSS THE CURRICULUM

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This chapter reports on a qualitative research study investigating reading demands in college courses during the first and second year for seven second language students. The study focuses on the expectations for student reading in courses across the curriculum and the strategies that these students developed for responding to those expectations. Our findings suggest that second language students learn to prioritize assignments; approach their instructors for clarification, help, and/or modifications with assignments; and limit the number of courses with high reading and writing demands that they enroll in each semester. Instructors in all disciplines can help all students become stronger readers by assigning reading for which students are held accountable, by providing a context and guidelines for reading, and by making use of writing-to-read activities.

This study investigates the experiences first and second year second language (L2) college students have with reading across the curriculum. As our small, private, four-year college plans for an increase in the international student population, we, as composition specialists, sought to learn more about L2 students' abilities and needs as academic readers and writers. Agreeing with Horning (2007) in her *Across the Disciplines* article, "Reading Across the Curriculum as the Key to Student Success," that "reading and writing must go hand-in-hand" (para. 6), we interviewed seven L2 students to try to understand the strengths, weaknesses, and strategic moves that these students bring to their reading assignments. Hedgcock & Ferris's (2009) claim that "it has been well established in L1 and L2 research that, although successful readers may not necessarily be effective writers, it is virtually impossible to find successful writers who are not also good readers" (p. 215), confirms our consistent observation as teachers of both L1 and L2 students

that less able readers are less able writers, and, conversely, the best writers in our classes also read with facility and insight. Like many college instructors, we are concerned that so many of our students, both L1 and L2, lack the ability and/or willingness to read assigned texts closely and critically. Whether prompted by inability or unwillingness, their failure to read assigned texts in-depth limits their access to writing proficiency. This concern has led us to focus on reading across the curriculum, exploring the expectations for reading in courses in other disciplines. We believe that to understand the challenges that reading assignments present for many students, we need to understand the contexts and purposes for reading in all their classes (Hedgcock & Ferris, 2009, p. 50). In focusing on the subgroup of L2 students, we have collected information from student interviews, syllabi, students' reading diaries and writing samples, and inventories of student reading strategies to form a picture of the texts, contexts, and purposes for which they read in all their classes.

We came to focus specifically on L2 students' reading after investigating the frequently-voiced alarm that today's college students in general are less able readers. As Horning (2007) puts it, if one "asks teachers about the problems students have with reading …, they will invariably say that students can't read and don't read" and that contemporary students are unable "to read complex texts with full understanding" (para. 10). Similarly, a survey by Sanoff (2006), reported in *The Chronicle of Higher Education*, found that only one-tenth of the college faculty surveyed thought that entering students were well-prepared for reading assignments. In addition to these reports of students' deficits in reading ability, Jolliffe and Harl (2008), in a study of student reading at the University of Arkansas, reported detailed evidence of students' unwillingness to read for their courses, finding that "many of the participants rushed through their required reading simply to get it done" (p. 612), which was not surprising as the students reported that the assigned reading was "uninspiring, dull, and painfully required" (p. 611). As incoming students' preparation for the demands of assigned reading decreases, college teachers across the disciplines are forced to pay more attention to the ways that we can help students to read and write about complex, college-level texts.

If reading is such a burden for so many L1 students, how, we wondered, do L2 students cope with the greater burden that the demands for reading in their courses across the curriculum place on them and what can their teachers do to help? As Hedgcock and Ferris (2009) note, "all L2 students struggle with academic reading" due to the more sophisticated and often specialized vocabulary in academic texts and the greater amount of reading expected (p. 55) as well as the differences in the writing system and its linguistic and textual structures that these readers may encounter in the L2 (p. 106). The focal student,

Yuko, in Spack's 2004 case study provides poignant testimony of this struggle: "I used to open some reading and the printed words used to scare me" (p. 31).

With considerable variation between categories of L2 students and among individuals within these categories, many L2 students lack the advantage of years of oral language exposure, which allow L1 learners to come to reading with extensive vocabulary and knowledge of the way words and sentences are put together (Hedgcock & Ferris, 2009, p. 50). These issues tend to manifest differently for international and immigrant students, with international students typically having the advantage of being experienced L1 readers with a foundation of grammar and vocabulary instruction in the L2, but experiencing disadvantages when it comes to genre knowledge and cultural background. Immigrant students, on the other hand, may not be experienced readers in their L1 or their L2, depending on their educational and immigration circumstances, but will usually have more knowledge of text genres and more cultural familiarity (Hedgcock & Ferris, 2009, pp. 51-55). As Hedgcock and Ferris (2009) comment, it is rarely possible for an L2 language learner, who is an international student or a recent immigrant, to put in the years of study or exposure to the L2 that would give the learner the equivalent preparation for reading in the new language that a L1 reader acquires (p. 59). Reid (2006) points out that many international students are, in her terms, "eye readers" who have studied L2 vocabulary and linguistic rules, often extensively, but who may be weaker listeners and speakers than they are readers (p. 79). Nevertheless, international L2 readers often lack confidence in their reading. Reid (2006) characterizes immigrant L2 students as "ear learners," who, having taken in American culture for a number of years, are often fluent speakers and listeners, but whose reading skills may be weaker than they acknowledge or than teachers anticipate (p. 77).

In addition to these potential issues of competence, L2 students may experience a "confidence gap," which predisposes them to reading behaviors, such as word-by-word translation, that interfere with their L2 reading (Hedgcock & Ferris, 2009, p. 61). We saw this confidence gap in action when one of our international participants, a second year student, initially refused to be interviewed because she felt that her English language skills were not up to having the conversation. In an email to us she explained, "I actually do not have confidence to help the research (because of my English skills), so I am not be able to help it. I am sorry" (personal communication, November 7, 2010). As Spack reports in her case study, L2 students may find that an increase in confidence is the most beneficial outcome of persisting with academic reading in the L2 because, as Yuko concludes, it "is not the improvement in the vocabulary (or background knowledge)" as much as the "confidence/boldness not to be bothered by what I didn't understand" that leads to her academic success (as

quoted in Spack, 2004, p. 43). Often such boldness will be seen when students are able to move from word-based reading, in which they may read word-for-word, read too slowly, translate, and/or overuse the dictionary (Hedgcock & Ferris, 2009, p. 219), to a more fluent reading in which they are able to read for the gist of a text without understanding every word (Auerbach & Paxton, 1997, p. 244; Leki, 1993, p. 9). Until they are ready to take this step, L2 readers remain, as Paxton eloquently describes, "prisoners of the unknown words" (Auerbach & Paxton, 1997, p. 253). Both reading competence and confidence can be boosted by instruction and practice in a combination of intensive and extensive reading. When reading intensively, readers use before, during, and after reading strategies to engage closely with a text. Extensive reading—general, self-selected reading for information and pleasure—can compensate to some extent for L2 readers' lack of exposure to the patterns of language in the L2 (Hedgcock & Ferris, 2009, p. 214).

All writers benefit from reading as they accrue tacit knowledge of the genres and conventions of written language and are exposed to ideas and data that spur their thinking. In the considerable body of research into the reading-writing connection for L2 students— Hedgcock and Ferris (2009) cite fourteen articles that review research on reading-writing interaction (p. 215)—the strong correlation between reading proficiency and writing ability found in studies of L1 students, while sometimes evident, is not as consistent as in L2 research (Ferris & Hedgcock, 1998, p. 31). Ferris and Hedgcock (1998) suggest that "we cannot assume reading-writing relationships to be as clear or predictable for ESL students as they might be for their NES counterparts" due to some L2 students' underdeveloped knowledge of the L2 and of the writing skills measured in empirical studies (p. 31). While L2 students may have more variation between their reading and writing skills, i.e. one cannot assume that a good reader will necessarily be a good writer and vice versa (Flahive & Bailey, 1993, p. 133; Grabe, 2004, p. 30), nevertheless, scholars agree that for L2 students as for L1 students, reading and writing are mutually reinforcing activities because "reading facilitates the development of writing skills" just as writing experiences help to improve reading (Ferris & Hedgcock, 1998, p. 43). As composition specialists, our interest in students' attitudes and approaches to their assigned reading stems from this reading/writing connection.

PARTICIPANTS

Our research site is a small college, which, like many US colleges, is actively recruiting international students. We sought our research participants from

English 101 for ESL students, a credit-bearing, first-year writing class for L2 students, recruiting four first-year students, all of whom happened to be either immigrant students or, in the case of a student from Guam, a multilingual US citizen. To balance the number of immigrant and international students, we then recruited three international students: two sophomores who had completed the first-year writing courses during their freshmen year and a sophomore transfer student new to the college (see Table 3.1). The students volunteered to participate and received a small stipend.

We met with six of the seven students twice for thirty-minute recorded interviews. The exception was Martin, whose first interview could not be scheduled until almost the end of the semester; consequently, we did not interview him a second time. The first interviews focused on the reading demands students faced in their courses across the curriculum and their ways of meeting those demands; the second, follow-up interview focused mainly on the writing assignment the students selected for our examination. As detailed in Table 3.1,

Table 3.1 Student Demographics

	Pseudo-nym	Gender	L1	Major	Native Country	High School
First-Year Students	Maria	female	Spanish	Legal Studies	Dominican Republic	2 years in US
	Chase	male	Vietnamese	Accounting	Vietnam	middle school/ high school in US
	Felix	male	Portuguese	Fashion Design	Brazil	high school in US
	Martin	male	Chamorro English	Athletic Training	Guam	Guam
Second-Year Students	Teddy (transfer)	male	Vietnamese	Accounting	Vietnam	1 year ESL school and 2 years international school in Vietnam
	Aya	female	Japanese	Psychology	Japan	International school in Hong Kong and high school in Japan
	Rina	female	Japanese	Hospitality	Japan	Japan

gender and first- and second-year standing were quite evenly distributed among our participants with a good mix of ethnicities, languages, and majors. While all of the second-year students were international students and all of the immigrant students were first-year students, we found little difference in the attitudes and strategies that students brought to their reading assignment between students in either of the two groups: international/immigrant or first-year/second year. Students across both groupings used strategies for accommodating and managing teachers' demands around reading that are strikingly similar to the strategic moves that Ilona Leki found in her study of L2 students dealing with writing assignments, "Coping Strategies of ESL Students in Writing Tasks Across the Curriculum" (1995). And while we assumed the sophomores would have more reading demands because they were taking more 200-level courses, in fact, the majority (5/6) of courses with the highest reading demands were 100-level courses.

The students' test scores indicated weaknesses in English proficiency with low TOEFL scores or low critical reading and writing test scores on the SAT despite the fact that all of the immigrant students had attended at least some years of high school in the US and the international students had studied English for several years. In addition, each of the international students had had some additional classes in English before entering our college; these experiences ranged from an English language school in the US to community college classes. Coming from Guam, Martin had all of his schooling in English. Some of the immigrant students had a year of ESL instruction in high school and/or special language tutoring in a public school. However, as Hedgcock and Ferris (2009) note "[e]ven L2 readers mostly or entirely educated in English-speaking environments typically have read relatively less than their native-speaking counterparts ... [as they] face the added challenges of a later start in learning English and living in a non- or limited English-speaking home" (p. 219). The international students reported that little of their English instruction involved reading.

The courses the students were taking during the fall semester 2010 are shown in Table 3.2.

READING DEMANDS

As we expected, our interviewees told us that their reading and writing assignments in college were more demanding than those they had faced in high school, whether in their native country or in the US. However, they made it clear that the reading demands varied considerably from course to course, with humanities courses, social science courses, and one of the first-year seminar

courses presenting the most demand for reading. Most students reported that in one or more of their courses, no reading of a textbook or other whole text was required. For example, Rina volunteered, "We really don't read" for all three of her 200-level courses and added, "I actually bought the book for this class but we never used that" for two of her three courses. When we examined syllabi for the classes in which the students were enrolled, we found reading assignments listed in most. In a few cases, the course schedule in the syllabi listed topics without a reference to a particular reading, so it was difficult to determine whether those topics were merely covered in class or if they corresponded to reading assignments. All of the syllabi listed at least one required textbook. In the specific cases where students told us that there was no reading assigned during the semester, the syllabi did list weekly reading assignments. Therefore,

Table 3.2 Majors and Courses

	Pseudonym	L1	Major	Courses
First-Year Students	Maria	Spanish	Legal Studies	5 courses: ENG 101 for ESL Students, Legal Studies 101, Math 104, Political Science 101, and First-Year Seminar
	Chase	Vietnamese	Accounting	5 courses: ENG 101 for ESL Students, Economics 101, Math 104, Business 101, First-Year Seminar
	Felix	Portuguese	Fashion Design	5 courses: ENG 101 for ESL Students, Art 101, Fashion Design 103 and 105, First-Year Seminar
	Martin	Chamorro English	Athletic Training	5 courses: ENG 101 for ESL Students, Athletic Training 101 and 103, Math 203, First-Year Seminar
Second-Year Students	Teddy (transfer)	Vietnamese	Accounting	5 courses: English 104, Academic Reading and Writing (an elective), Math 205, Math 208, Sociology 101, First-Year Seminar
	Aya	Japanese	Psychology	4 courses: Human Services 101, Sociology 101, Psychology 221, History 104
	Rina	Japanese	Hospitality	4 courses: Business 206, Business 220, Communications 206, History 104

we are not sure whether the students meant that, while reading was assigned, they felt that they did not actually have to do the assigned reading in order to do well in the course or whether the assignments in the syllabi were not actually enforced. For example, Aya and Rina both reported that there was no textbook assigned for some of their courses (in sociology, human services, and business), but the syllabi show an assigned textbook and chapter assignments to be completed each week.

What was clear from the interviews is that often professors would lecture about the material in the textbook and/or make their Power Point notes available on the course website, and, in some cases, students found that there was therefore no reason to do the reading even if it was assigned. Reading the teacher's notes is, of course, still reading, but such reading does not make the same demands as reading a book. One textbook even came with an instructional DVD, obviating the need for Martin to rely on his reading skills alone. However, it was not always the case that lectures or online Power Points meant that the students did not do the reading, as Aya reported that she always did the reading for her 200-level psychology course and then depended on the lectures to explain things she did not understand when reading on her own, having found that both were necessary to fully understand the material. Similarly, Felix read the textbook for his fashion design course, Clothing Construction, because he found that it reinforced what the teacher conveyed in class. The students did report a number of assignments that required shorter readings, such as the assignment in Economics 101 to locate an article from the *Wall Street Journal* or another business-oriented newspaper or magazine online and then write about it or report on it to the class. Such reading, according to Chase, is "easy." The fact that reading is not necessary in all courses is consistent with reports that typical L1 students can do well in their courses and receive good grades without doing much of their assigned reading. Jolliffe & Harl (2008), for example, report that "[p]rofessors admit that students can actually pass exams if they come to lectures and take (or buy) good notes, whether or not they have read the assigned material" (p. 600).

Of the thirty-three courses in which the seven students were enrolled, they identified six as posing high reading demands: Felix's first-year seminar, an introductory history course that Aya and Rina took together, Teddy's introductory sociology course, Maria's introductory legal studies course, and Rina's psychology course, the only 200-level course so identified. The difficulties these courses posed included the amount of required reading, the unfamiliar content of the reading, and the lack of the cultural background that would have provided scaffolding for the readings. These difficulties in unfamiliar language and content are consistent with the challenges that reading assignments pose

for L2 students described in the literature. In addition, the interviews revealed that issues outside of the linguistic demands of reading in the L2 can also make reading difficult. These additional difficulties include limitations on students' time for reading and writing posed by the requirements of other kinds of assigned work, student activities, and team sports; the difficulty of performing critical thinking tasks; and the challenge of sustaining the concentration required for reading when the subject is not among one's interests.

In the history course, Aya and Rina experienced the kind of difficulties that the literature describes as typical for international students, finding that the amount of reading, the vocabulary, and their lack of background knowledge all presented challenges. Aya said that her history and psychology courses presented the most difficulty, partly because she isn't interested in history, but more so because the vocabulary is difficult: "I kind of understand but for some few sentences the wordings are difficult that I sometimes get stuck with it." Rina reported that she needed considerable translation to understand the words in the history textbook. For both the textbook and an additional book, *My Battle of Algiers* (Morgan, 2005), Rina and Aya noted their lack of background knowledge. For example, Aya said that she had no context in which to understand topics such as the Mughal Empire or Islam and world trade. Although Rina and Aya felt at a disadvantage in comparison to the L1 students, their instructor commented that the L1 students did not know much, if anything, about these subjects either.

Maria reported that the reading load and the technical language in her legal studies reading assignments presented difficulty, particularly at the beginning of the semester. The reading was longer and more complex than any she had encountered before. According to the department chair, most students in this class find the terminology difficult and benefit from creating a glossary. Maria probably experienced no more difficulty than the native speakers in her class. In fact, research in second language writing has found that faculty consider L2 students more adept than L1 students at learning the vocabulary in a discipline that is new to them, which may be attributed to the L2 students' experience in acquiring new vocabulary while learning new languages (Leki, 2006, p. 143). It is clear that Maria, according to her self-report, spends more time studying than most U. S. college students do, as she reports spending five hours a night, seven days a week while the National Survey of Student Engagement found the majority of college students spend fewer than sixteen hours per seven-day week (Jolliffe & Harl, 2008, p. 601).

The first-year seminar courses, which all the first year students and Teddy, the transfer student, were taking, are theme-based courses designed to engage students in a specific area of interest while providing support for making a

smooth transition to the college community. The courses vary widely in terms of their reading demands. Felix's first-year-seminar was the most demanding, as his instructor required students to read four novels and write three analytic papers, a requirement that he found he could not meet partly because, as he candidly reported, he could only spend about forty-five minutes a day reading one of the assigned novels before he became too bored to continue. Although he knew this was not enough time to keep up with his reading assignments, he found it impossible to continue reading past that point.

While Teddy had little difficulty with vocabulary in reading his sociology textbook, he found it difficult to read and understand the case studies that were also weekly reading. While lack of shared cultural background made it hard for Teddy to grasp the nuances in the American situations the case studies described, his bigger difficulty was in thinking critically in the ways the writing assignments required. When asked to apply the general sociological concepts he had read about in the textbook to the case studies, Teddy felt that his lack of experience in critical thinking made this quite challenging:

> Maybe it's because I wasn't born here that I don't have that skill [critical thinking] that everyone has. Everybody in my class doing so well but not for me ... I understand the concept, I understand what is value, what is norm, what is sanction, what is bureaucracy, and everything, but when they ask me to apply it to one of the story [case studies], I cannot do it, I cannot get the inside like everybody else.

Teddy made clear in subsequent interviews that during his schooling in Vietnam, students were expected to memorize, not to express ideas or apply concepts. In this, he is like some of the student informants in Zawacki and Habib's 2010 study, such as Sri, who reported that in India, "You learn it by memory and put it back on the page word for word ... Your own expression was not really accepted, unlike here where there's a lot of emphasis on your thoughts and expression" (p. 61).

MEETING THE DEMANDS: READING STRATEGIES

To explore the students' use of the reading strategies that the literature describes as typical practices of experienced readers, we asked each of the six students to complete an inventory listing multiple strategies based on a reading inventory developed by Auerbach and Paxton (1997). In Table 3.3, we list the

strategies employed before, during, and after the reading that three or more students reported using regularly.

Even though only four of the participants reported using a dictionary when they came across unknown words, during the interviews all of the students said they look up unknown words to varying degrees. Rina, who had little focus on reading in her English studies in a Japanese high school and never reads for pleasure in her L1 or L2, and Teddy, who had considerable experience reading in English both in his community college and on his own, represent opposite ends of the continuum between hesitant, word-for-word reading and more confident, fluent reading. While Rina remains heavily dependent on translation and electronic translators, Teddy reported that he used to use a translator but

Table 3.3 Student Reading Strategies

Before you start reading, what (if anything) do you typically do?	Responses (out of 6)
Glance at the whole text first, checking length or other text features	4
Skim the whole article	4
Read the title and think about what might be coming	4
While you are reading, what goes on in your mind? What are you doing?	
Taking notes, marking the text	5
Asking questions	4
Writing	4
Skimming or skipping parts	3
Going back and forth between parts	3
Making predictions	3
What do you do when you come to unknown words or passages you don't understand?	
Guess	4
Use the dictionary	4
Re-read	3
Mark the word/passage and come back to it	3
After you finish reading, what do you do?	
Go back and re-read specific parts	4
Re-read the article	3
Stop and turn immediately to the assignment	3
Go back and re-read specific parts	4

found it "expensive and very annoying" to spend so much time looking up words. He made the transition from word-based to meaning-based reading in his international high school. Teddy has developed a higher tolerance for not understanding every word and more facility in guessing meaning from context: "There's a lot of words I'm not sure about but based from my experience, I just read the whole thing and I just guess. That usually does help, and it saves me a lot of time ... Reading without a dictionary, I can enjoy the content of a story; reading with a dictionary, it just makes the reading really boring." Rina, in contrast, translates continually, even translating some of the words in the history syllabus she showed us; she worries that "sometimes I check every time the same word," meaning that she isn't adding the words that she translates to her vocabulary.

Overall, the results indicate that these L2 students make use of many of the strategies emphasized in intensive approaches to reading. What is equally interesting are the practices that the students did not report making use of. For example, only one student said that while reading he thought of something from his own experience or thought about other articles/courses. The students we interviewed seemed to focus solely on understanding the text and were not able to use experiences outside of the text to help them understand it.

MEETING THE DEMANDS: COPING STRATEGIES

In her study of L2 students dealing with writing assignments, "Coping Strategies of ESL Students in Writing Tasks Across the Curriculum," Leki (1995) found that students employed a number of strategic moves to deal with the writing tasks assigned. The students in this study used similar strategic moves in response to the reading demands they faced. Like Leki's participants, they took advantage of their first language and culture, approached their professors and, in some cases, peers, for clarification and help, managed competing demands by choosing the number of courses and the type of courses they enrolled in each semester with reading and writing demands in mind, managed their work load by setting limits on their investment in particular courses or assignments, and regulated their cognitive load by strategically using reading to reinforce what they had heard in class. (A number of these moves are similar to those employed by Chozin, the graduate student who is the subject of Phillips' case study [this volume]; he too learned to take the initiative in managing his learning and writing environment in order to complete his assignments successfully.)

Some of the students' strategies for managing their reading tasks involved taking advantage of their first language by doing "outside research" in the

L1 in order to understand texts and lectures. Most often this took the form of looking up background information on the Internet about the topic. For example, Aya reports that in her history class, "on the syllabus it says like the title of what she's going to talk about today, so I like go on the Internet and look up kind of like an overview or background information in Japanese and kinda get the idea and I go to the class." Both Aya and Rina talked about looking online for information in Japanese about the Battle of Algiers in order to help them understand *My Battle of Algiers* (Morgan, 2005). Similarly, Chase found his economics instructor's notes hard to understand, so he would read material on Google until he was able to understand the concepts and complete his homework. Rina reported that at the beginning of the semester she had her mother send her Japanese books on business to help with her business courses.

Teddy was the most assertive of the students we interviewed in asking for adaptations of assignments so that he could take advantage of this first culture. He negotiated adaptations in his introductory sociology class by asking the instructor to let him use his knowledge of his own background, Vietnamese culture, rather than examples from US culture, an accommodation that the professor allowed for a group presentation and an exam. For the exam, instead of writing about a subculture in the US (which he did not clearly grasp), his instructor allowed him to write about a subculture in Vietnam. By allowing him to examine the subculture in Vietnam, his instructor was able to gauge how well he understood the sociological theories he was learning without penalizing him for his lack of understanding of American subcultures. (Like Chozin with his writing assignments, as described by Phillips [this volume], Aya, Rina, Chase, and Teddy show L2 students drawing on knowledge from their L1 to complete reading and writing-about-reading assignments. As DePalma and Ringer argue [this volume], when we consider what writing knowledge L2 students might be transferring across cultural, linguistic, and academic contexts, many of which are unfamiliar to them, we need to recognize how they are reusing, and in many cases, reshaping concepts and information from their L1.)

Another approach students used when struggling with the readings was to ask someone, typically a classmate or the instructor, for help. Students indicated that often times they did not feel comfortable asking the instructor questions about the text during class, but would instead wait until after class to talk with the instructor or they would email him or her. Martin indicated that if he still didn't understand after rereading, "I'll like ask another Athletic Training major, 'Hey, did you get that?' and if they don't know, we'll just look it up and kind of discuss." Chase also reported working with his classmates to complete the homework problems that were assigned in his economics class.

Aya and Rina managed the high reading demands that they expected to find in their history course by taking the course together and by limiting their course load to four 3-credit courses instead of the usual five that semester. (We recently learned that Chase and Teddy are currently following the same strategy of taking their history course together.) In our follow-up interviews with five of the seven participants during the 2011-2012 academic year, most readily acknowledged that, when they plan their schedules each semester, they seek a balance between courses with high demands for reading and writing and courses with less demands. For Teddy and Chase, for example, math-based courses are much less onerous, so they balance reading/writing-intensive courses with those that are more math-based. Teddy averred that he could handle a 50-50 balance while Chase said that he preferred a 70-30 balance in favor of math-based courses. The content of the reading makes a significant difference, however, as reading in the student's major, such as Rina's reading about restaurant and hotel management, was seen as much more manageable than reading in a discipline outside the major. Similarly, Felix finds his fashion textbooks useful and readable and does not sell them back to the bookstore, keeping them to use for future reference.

In Leki's study (1995), students made conscious choices to limit their investment in particular assignments, courses, and in academic work overall, choosing, for example, not to reread because it took too much time away from other assignments or to participate in college activities, socialize or travel rather than to study in order "to get a more well-rounded educational experience" (p. 251). Similarly, in our study, some students prioritized the hands-on work assigned in classes, such as Felix's fashion design courses, and their student activities over completing their reading assignments. For example, Felix was part of the Student Government Association and Martin, as a soccer player, had daily practices and frequent games during the season. Interestingly, they are the two students who were most forthright about the choices they made to limit the amount of time they devoted to reading in areas outside their career-oriented majors because the reading became too boring to tolerate. As Felix reported, "If it was a book about like about fashion design or like a designer or something else that I'm like into it, I would just totally, I would just like spend my entire night not sleeping and just reading the book, but [the assigned reading in his first-year seminar] is just boring," so "when I'm reading, I start thinking about something else and my head just goes like, it doesn't stick with the book." Martin similarly reported that after awhile "I can't keep reading, I'm gonna get off track and then I'm not going to be paying attention."

The participants in Leki's study (1995) had a number of strategies to prepare for and follow up class lectures, including reading ahead in order to preview what the instructor would say in class and not taking notes in order to

concentrate in class, strategies Leki terms "regulating cognitive load" (p. 252). Aya used strikingly similar stratagies. Following the design of the course in the syllabus, she prepared for the topic to be discussed by reading in her L1 on the Internet, providing her own scaffolding for the upcoming lecture, then focused on listening in class, and finally read the textbook after the lecture to reinforce and clarify what she heard. The follow-up interview revealed that Aya is continuing to regulate her cognitive load in her upper-level psychology courses. She reads the textbook chapter before class, listens in class, and then prints out the Power Point slides that are posted on the course website and goes over these after class to reinforce her learning. In one psychology class, she can't predict what the professor's lecture will cover from the syllabus, so she listens during class first, then reads the Power Point slides, then reads the textbook chapter. Teddy follows a similar routine of reading the textbook before class to provide scaffolding for the lectures. He reported that he depends heavily on the textbook for his learning, particularly when the professor is not an effective lecturer. Teddy observed that "I don't want to put myself in the situation that I rely on the professor too much … so I develop a style of studying rely mostly on the book."

CONCLUSIONS AND RECOMMENDATIONS

The interviews revealed that, in most cases, these L2 students coped well with the demands for reading in their courses. Only one student mentioned resorting to *Spark Notes* when the reading was too time-consuming. In addition to the students' self-reports, the writing samples students brought to their second interviews, all graded as A's or B's, showed evidence of at least rudimentary skills in selecting and integrating information from readings into the writing. The students were aided by their own strategies and the help of instructors, who spoke to students after class, during office hours, and on email to answer questions about the readings; modified assignments to allow students to use their own cultural experiences; made accommodations for students who needed to translate during exams; and used visual modalities to convey information to students. Students consistently mentioned how helpful it is if instructors are available to meet with students after class and during office hours. From the students' comments, it is very clear that they usually do not feel comfortable asking questions in class and are at times quite self-conscious. In cases where the students were not able to meet face to face with their instructors after class, they found it helpful to be able to email the instructor. During Maria's second interview, she explained that only one of her instructors knew she was not born

in the United States and that she did not want to be treated differently from the other students as it was already hard to be in college. However, she too discussed how helpful it was to be able to email an instructor for clarification on one of her assignments.

In general, an opportunity for a visual component is helpful for L2 students. Both Aya and Rina talked about an assignment from history class in which they were asked to respond to a review of a book. Instead of a written review, students were given the link to a YouTube video interview of the person reviewing the book. They found it helpful to be able to watch the video repeatedly.

Based on what we learned from our study and from second language reading pedagogy, there are several additional practices that could aid students and promote reading across the curriculum that did not appear to be widely used, such as providing a context for assigned readings in advance and making greater use of writing-to-read activities. Several students discussed how helpful it would be if instructors would provide a context for the readings beforehand. For example, Aya and Rina struggled with reading *My Battle of Algiers* because they had no context for it. Felix struggled with the dialect in Zora Neale Hurston's *Their Eyes Were Watching God* (1937/2006) and stated, "For me, it wasn't English. It was Greek." If instructors are able to give students an overview of what the reading material will be about, the time period or key persons involved, or ways to decipher the dialect, this might go a long way in helping students to understand the reading. In addition, instructors across the disciplines should help students to become aware of how they read, so that they begin to recognize the practices that inhibit the development of fluency. Instructors can then "encourage students to read first for overall meaning without trying to understand every single word" (Spack, 1993, p. 189).

While many of the students used notetaking, glossing, and annotating when they read, they did not mention using other writing-to-read strategies either on their own time or in their classes. Hirvela (2004) discusses three writing-to-read strategies that help students to understand the material they are reading: summary, synthesis, and response papers. Hirvela (2004) draws on previous studies that have found "more complex writing tasks involving some degree of composing (e.g., analytic and response-based essays) have a greater impact on students' learning than do less demanding activities such as notetaking and answering study questions" (p. 84). While study questions may guide students to important places in a text, when students are asked to write a summary, they are forced to decide what information in the text is of the most importance. According to Hirvela (2004), "In situations where we have reasons to expect our students to encounter difficulties while reading, adding a writing component such as summarizing might be the best reading gift we can give them" (p.

91). This is confirmed by a L2 student, Karimatu, interviewed in Zawacki, Hajabbasi, Habib, Antram & Das's study (2007), who said, when asked what she would tell students coming to the United States, "Get used to the habit of reading, and, if you can read it, take a piece of paper .... when you read, write. Just write a part from what they learn. Let's say you read two pages, and you ask yourself what you read. Sometimes you read and your mind is somewhere else you don't understand. Summarize it in your own words, just to get in the habit of doing it" (p. 18). (Qian Du [this volume] describes the benefits of summary writing for L2 students. While a particularly complex process for these students, as she explains, because it requires an understanding of different levels of information in the text along with the ability to represent the original text accurately and concisely, summary writing is a valuable learning and writing tool for the reasons raised in this chapter.)

Another written component is synthesizing, which allows students to move beyond summarizing one text to summarizing and describing the relationship among multiple texts. Given that when our interviewees described their reading strategies, only one student mentioned thinking about another text, synthesis assignments might be a useful technique for instructors to use to help students see the connections among texts. A third type of writing-to-read activity is the response assignment, which can take a variety of forms ranging from pre-reading writing in which students are asked to write about the topic of the text to post-reading writing in which students describe their reactions to the texts. Many instructors assign journals in which students respond to the texts. Like the summaries, response assignments can give instructors insight into the challenges students are facing with the texts assigned and can easily be incorporated into classes from all disciplines.

Yet, other than in the writing courses, we found no evidence that instructors assigned summaries, syntheses, or response assignments so that students were able to write in response to readings. Perhaps the use of writing-to-read assignments is one of the reasons that the students taking writing courses reported that they read the assigned readings from their composition readers easily.

Ultimately, instructors in all disciplines can help all students become stronger readers by assigning reading for which students are held accountable, so that they continuously practice reading. As noted previously, L2 students may benefit even more than L1 students do from extensive reading practice because frequent reading can build tacit knowledge of the L2 and prompt more fluent reading. Additionally, instructors across the disciplines can design writing activities and assignments that invite students to go beyond comprehension and the accumulation of information to analyze, synthesize, and evaluate what they read. As Carson (1993) notes, "Language is always used to do something; it is

not meaningful in and of itself" (p. 99). Reading is meaningful when students think about the content of their reading and do something with it, composing their thoughts in response to the language on the page or screen.

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