

COPING WITH THE DEMANDS OF ACADEMIC LITERACY: GENERATION 1.5  
ESL COMMUNITY COLLEGE STUDENTS AND THE CHALLENGE OF READING  
TO LEARN WHILE STILL LEARNING TO READ

by

George A. Flowers, Jr.  
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Committee:

\_\_\_\_\_ Chair

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ Program Director

\_\_\_\_\_ Dean, College of Education  
and Human Development

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Coping with the Demands of Academic Literacy: Generation 1.5 ESL Community  
College Students and the Challenge of Reading to Learn while Still Learning to Read

A dissertation submitted in partial fulfillment of the requirements for the degree of  
Doctor of Philosophy at George Mason University

by

George A. Flowers, Jr.  
Master of Education  
George Mason University, 2002

Director: Rebecca K. Fox, Professor  
College of Education and Human Development

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George Mason University  
Fairfax, VA



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## **DEDICATION**

This study is dedicated to the memory of Muriel Hankerson Flowers and George A. Flowers, Sr. and to W. Fred Flowers. Their commitment to family and natural instinct to place others above self continue to nurture and to inspire. To extrapolate a thought from Kushner (1996), to live in the memory of those we leave behind is to live forever.



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In the dozen or so Acknowledgements pages I have read carefully over the past two years, a recurring theme has been the humbling effect of researching and writing a doctoral dissertation. As I near the end of my own dissertation, I, too, am humbled as I reflect on the magnitude of this allegedly “solo” effort, which could not have happened without the ongoing encouragement and support of an army of facilitators and well-wishers.

I was particularly fortunate to have had a committee of scholars whose members not only respected each other but treated me as a colleague as well. On the eve of my dissertation defense, Dr. Rebecca K. Fox, committee chair, sent me an email of encouragement reminding me that my committee was there to “support, sometimes challenge, and always move [my] scholarship forward.” Such was always the case throughout my study, and I am particularly grateful to Becky who, for 13 years, has been my teacher, mentor, advocate, and coach extraordinaire. I am especially appreciative also to committee members Dr. Elizabeth G. Sturtevant and Dr. C. Stephen White, who brought to my study insights and expertise that both complemented and expanded my research perspective.

Dissertations typically grow out of the coursework and communities of scholars that precede and surround them. For me, the College of Education and Human Development has been a constant source of intellectual enrichment and is part of what makes George Mason University my “magic kingdom.” Courses and professors who stood out in my Mason experience include Dr. Gary Galluzzo, whose “Ways of Knowing” course was my point of entry into the Ph.D. program and set the standard for all that followed; Dr. Lorraine Valdez Pierce, who was my M.Ed. mentor and whose doctoral “Seminar in Bilingual Education Policy” was a model of what a graduate seminar should be; Dr. Dimiter Dimitrov, whose quantitative methods courses imparted not just statistical methods but a respect for logical thinking as well; and Dr. Charlie Jones, from the Department of English, whose challenging, spell-binding courses in linguistics and insistence on precision in writing provided a knowledge base I draw on every time I walk into an ESL classroom.

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Ph.D. programs are inherently intense, and the closer one comes to the end, the more important family and friends become. Families provide love and psychic support, but they also provide balance, perspective, and a healthy grounding in reality. My retreats with the extended family in Florida and summer cycling trips throughout the mid-Atlantic with my wife, Norie, kept me pumped up. My son Benjy (Dr. Benjamin S. Flowers) and his wife “Tex” (Dr. Jennifer Clark), who preceded me in the Ph.D. journey, were intellectual soul mates; in addition to providing encouragement they also served as inspiring role models, especially during the dissertation phase. There were always dogs and cats and kids close by; I especially enjoyed the company of the McQuiddy kids, the Tesh “princess,” and Detrick, who can always make me laugh. 5-hour ENERGY<sup>®</sup> helped me stay focused after late-night writing sessions, but what sustained and delighted me week in and week out was the continuing stream of gourmet meals and treats from Norie’s kitchen. Chocolate is indeed an art form.

Only one person is listed as author on the title page of a doctoral dissertation, but in reality a dissertation is the product of many willing hands and minds. That is a humbling reality. Researching and writing a dissertation is humbling also when viewed from the perspective of how small is our contribution to the body of knowledge when compared to what is still potentially knowable. The good news is the end of every academic journey is the beginning of a new one. There is a lot of work to be done. I can hardly wait to find out what’s next for me.

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## LIST OF ABBREVIATIONS

Age on arrival .....	AOA
Critical Period Hypothesis .....	CPH
English for Academic Purposes .....	EAP
English language learner .....	ELL
English as a second language .....	ESL
English Speakers of Other Languages .....	ESOL
English as a foreign language .....	EFL
Foreign Service Institute .....	FSI
Intensive English Program .....	IEP
First language .....	L1
Second language .....	L2
Limited English Proficient .....	LEP
Native speaker .....	NS
Non-native speaker .....	NNS
Northern Virginia Community College .....	NOVA
Age of onset .....	OA
Second language acquisition .....	SLA
Second language learning/learner .....	SLL
Test of English as a Foreign Language .....	TOEFL



## **ABSTRACT**

### **COPING WITH THE DEMANDS OF ACADEMIC LITERACY: GENERATION 1.5 ESL COMMUNITY COLLEGE STUDENTS AND THE CHALLENGE OF READING TO LEARN WHILE STILL LEARNING TO READ**

George A. Flowers, Jr., Ph.D.

George Mason University, 2013

Dissertation Director: Dr. Rebecca K. Fox

This quantitative study conducted in the ESL program at a large community college investigated the symbiotic relationship between reading and second-language learning from the perspective of the class of post-secondary functional bilinguals sometimes referred to as Generation 1.5. These students are long-term, resident second-language (L2) English learners/speakers who receive much or all of their K-12 education in the United States while retaining roots in another language and culture. In this study, a convenience sample of 118 first-time enrollees in multiple sections of an intermediate ESL reading course completed a personal inventory that solicited information on matters related to L2 reading. These data were supplemented by scores on assessments of vocabulary, results from an established survey of reading strategies, and course outcomes derived from student records. The validity and potential usefulness of the Generation 1.5 model was assessed by comparing results for Generation 1.5 study participants to those

for participants who received their K-12 education outside of the United States.

Affirming similar findings derived largely from small-scale, qualitative studies, results from this study indicated comparative advantages for Generation 1.5 bilinguals in areas such as vocabulary breadth and depth, knowledge of English syntax, and self-reported proficiency in constructing meaning from English-language texts. Nevertheless, a higher proportion of foreign-educated study participants successfully completed the course.

Consistent with themes emerging from Generation 1.5 research and L2 reading research, results from this study were interpreted as evidence of a lack of sustained engagement by many Generation 1.5 ESL students deriving in part from the inherent difficulty of reading in a second language but also reflecting a widely shared perception that for Generation 1.5 students the rewards of participating in college-level ESL are not commensurate with the considerable cognitive investment required, especially in ESL courses that do not count toward degree requirements. The study concludes that the language-support needs of post-secondary Generation 1.5 bilinguals might be better served through a combination of ESL-supported mainstream placements and ESL course offerings that integrate reading and composition in the simultaneous development of language, literacy, and content knowledge.

## **CHAPTER ONE**

Teaching English as a second language seemed a logical next step for me after a career in the Foreign Service that had included postings in Honduras, Guatemala, Bulgaria, Romania, and (several times) Washington. Having recently finished a master's degree in teaching ESL and soon to receive my license to teach K-12 ESL in the Commonwealth of Virginia, I accepted what I thought would be a one-semester appointment as adjunct ESL instructor at Northern Virginia Community College (NOVA). My goal was to build classroom experience while waiting for a full-time teaching position in the local public school system. As it turned out, this was but the prelude to a long and rewarding "second" career with NOVA, but when I think back to that first semester, two memories stand out: the disruptive effects on my class of the terrorist attacks in New York, Washington, and Pennsylvania on September 11, 2001 (the day after my first class had met for the first time), and my first exposure to what I later learned were being referred to by some scholars as Generation 1.5 English language learners (ELL).

Of the 17 students in my first "beginning" reading class, a handful were prototypical Generation 1.5 ELLs: their home language was something other than English, they had lived in the United States long enough to be fluent in oral English, and they appeared to be quite conversant with American popular culture and at home in a

U.S. classroom setting. I was convinced an error had been made, but my supervisor (and some of the students themselves) assured me that they had been appropriately placed. Soon enough, their weekly reading journals and other written assignments confirmed that their command of oral English belied shortcomings in reading comprehension and composition – shortcomings that, not addressed, would place them at risk when they moved on to freshman English and the content courses that would constitute their academic programs of study.

Ten-plus years and hundreds of students later, I am still perplexed by the seeming contradictions presented by Generation 1.5 L2 speakers of English, which is what led me to the study documented here. I think we can do a better job of supporting the literacy development of this growing population, and I am convinced that it is in everyone's interest that we try to do so.

### **Who Are Generation 1.5 English Language Learners/Speakers?**

The term *Generation 1.5* was first used by immigration scholars Rumbaut and Ima (1988) to highlight the “betweenness” of foreign-born, U.S. educated immigrants and the challenges they face in adapting to life in the United States with respect to their “educational and occupational attainments and aspirations” and their “prospects for economic self-sufficiency” (p. x). While language was among the many factors investigated by Rumbaut and Ima, it was not the primary – or, indeed, even a major – focus of their study. As the ranks of Generation 1.5 learners in public schools swelled during the decade of the nineties, however, educators and scholars in the field of second

language acquisition increasingly embraced the Generation 1.5 metaphor, finding in it immediate practical significance as well as aspects of potential theoretical interest.

Educators/researchers differ widely on the particulars, but, in its narrowest sense, the term Generation 1.5 English language learner (ELL) denotes first-generation, non-English speaking immigrants who come to the United States at a relatively early age, matriculate in the U.S. educational system, and, through extensive contact with the English language and American culture, take on many of the cultural and linguistic characteristics of their American-born, second-generation, native-English-speaking siblings and peers. Because they retain strong ties to their home culture and language, however, they wind up in the middle, neither fully first, nor fully second, generation Americans (Roberge, 2009). Portes and Rumbaut (2001) succinctly characterized the Generation 1.5 experience, albeit in a somewhat wider context, as “growing up American with foreign parents” (p. 18).

Although only relatively recently a focus of academic interest, second language learners to whom the term Generation 1.5 may be applied have, of course, long been part of the American educational scene. As Roberge (2009) noted, the designation Generation 1.5 highlights “socio-cultural and linguistic issues previously obscured when students were theorized and studied using more generic categories such as ‘immigrant,’ ‘non-native,’ or ‘minority’” (p. 3).

In recent decades the number of foreign-born, U.S. educated English language learners has grown both in absolute terms and relative to the total population. Coinciding with this growth have been important changes in the U.S. job market that have important

implications for this segment of the population. At the turn of the 20th century, manufacturing, farming, and other manual-labor jobs provided ready employment for the immigrant population, and many of these jobs required little more than conversational English, if that. By the turn of the 21st century, however, the United States had become a knowledge-based economy, and many of the jobs that previously absorbed a significant portion of the immigrant population had long since become extinct or outsourced to other countries. Modern-day Generation 1.5 high school graduates, thus, find themselves competing with native English speakers in a highly competitive job market that offers fewer non-skilled jobs and places a high premium on English language proficiency. As Grabe (2009) has stated, “The level of expectation for a person to function well in a modern print environment is higher than ever before” (p. 6).

It should be noted, as well, that the ethnic mix of the American immigrant population has changed substantially over the past century. At the turn of the 20th century, the overwhelming majority of U.S. immigrants were of European descent. While they were a diverse population, to be sure, the majority spoke an Indo-European language and shared many of the cultural values of their new home country. By contrast, modern-day (post-1965) immigrants are ethnically, socially, and linguistically more diverse. Many come to this country with little or no formal schooling, or interrupted schooling (Blanton, 2005; Hartman & Tarone, 1999; Roberge, 2009). As syntactic and lexical distance from the target language (in this case English) increases, so does the challenge of mastering the second language. As ethnic and social distance increases, so, too, does the challenge of assimilating into the host culture.

By the mid-1990s, Generation 1.5 L2 English speakers constituted a sizeable, and rapidly growing, presence on college campuses across the United States, especially in urban areas with traditionally large immigrant populations such as New York, Miami, and Los Angeles. With that increased presence came a pair of challenges for institutions of higher education: assessing and placing these students in appropriate programs of instruction, and providing appropriate language support, not just in language courses but across the curriculum, from matriculation to graduation.

In many post-secondary institutions, ESL programs have primary responsibility for providing language support services to both Generation 1.5 L2 English speakers and to other non-native speakers, typically schooled in EFL(English as a Foreign Language) programs abroad, who are considered *international*, or *visa* students. Such is the case at Northern Virginia Community College, whose ESL population grew by 26 percent (from 1,967 students to 2,470) between 1995 and 1999 (Office of Institutional Research, 2001). ESL students constituted approximately 6 percent of total students enrolled at NOVA in the fall of 1999. This is the population I serve, and the context in which the study described here was conducted.

### **Statement of the Problem**

Both language and content-area instructors have long noted that many Generation 1.5 L2 speakers of English arrive ill equipped to cope with the demands of academic English (Blumenthal, 2002). Straddling multiple cultures and languages, these students leave high school with unique strengths and weaknesses that reflect uneven pathways toward the high school diploma but also foreshadow uneven trajectories as they transition

to the academically more demanding experience of post-secondary education. Compared to their predominantly monolingual L1 English speaking peers, Generation 1.5 English language learners start from behind and play “catch up” throughout most if not all of their academic career (Cummins, 1981a; Thomas & Collier, 2001) since they are expected to meet increasingly rigorous standards of critical literacy across the curriculum while simultaneously mastering the nuances of the language of instruction (i.e., English). Compared to their foreign-educated, English L2 college classmates, they often lack the broad content knowledge that accrues from uninterrupted K-12 education in one’s home language as well as the metalinguistic knowledge and exposure to literature typically associated with learning English as a “foreign” language.

Because English is not their first language, even highly motivated post-secondary Generation 1.5 learners often find it difficult to manage the quantity and complexity of reading expected of them and to articulate their knowledge through writing. As Fox (1994) documented in her study of similarly challenged international students who come to this country as short-term residents for the sole or primary purpose of pursuing higher education, this is a continuing source of frustration for students and professors alike. The needs of both Generation 1.5 L2 English speakers and the institutions of higher education that instruct them might be better served if we had a clearer understanding of the ways in which reading might be exploited to support the development of critical literacy and critical thinking.

Much of the education-based scholarship on post-secondary Generation 1.5 English L2 speakers has focused on sociocultural/sociolinguistic aspects of the



Generation 1.5 experience, including discourse communities, power relationships, language identity, and motivation. With respect to literacy development, the emphasis has been on composition, in part because of its high visibility as a marker of second-language proficiency and in part because of the challenge to L2 speakers inherent in mastering the more elaborated code of written (versus spoken) English. Notably lacking are studies focused on reading (Grabe, 2009), despite the fact that, as Crosby (2009) argued, the “academic writing difficulties of Generation 1.5 learners may be more reading than writing related” (p. 110).

While composition-focused studies often acknowledge – whether explicitly or implicitly – the complementary role of reading, they unwittingly undervalue the importance to Generation 1.5 L2 English speakers of higher-order reading fluency in the post-secondary educational setting. Clearly, the ability to express oneself in writing is crucial to success in the academy. It is also crucial to success after college in many of the better paying, more prestigious information-based jobs in the modern world economy. It is not, however, more important than the ability to read well, the “reverse” side of the literacy “coin.” More studies on reading in a second language are needed to correct this imbalance in the Generation 1.5 scholarship, and it was to that imbalance that the present study was addressed.

### **Significance of the Problem**

Just as Generation 1.5 L2 English speakers typically demonstrate a high level of proficiency in spoken language, so, too, they often demonstrate a high level of proficiency in decoding written texts. Consequently, both they and their instructors may

overestimate their abilities to comprehend and process text. In ESL programs in which reading and writing courses are taught as “linked,” yet “stand-alone” courses, as is the case at Northern Virginia Community College, there is sometimes pressure to advance students to higher level reading courses than their assessed levels of proficiency in written English might indicate. For example, a student whose score on a diagnostic writing sample indicates placement at Level 4 in composition might be considered for a Level 5 (higher) reading course based on an informal assessment of his or her ability to decode basic texts. While strong decoding skills obviously constitute a necessary starting point in the development of reading proficiency, they are not sufficient to guarantee success in coping with the quantity and quality of reading expected of college students, even at the community college level.

Despite their years in the U.S. educational system, their facility with idiomatic, oral English, and their ability to decode texts with seeming ease, Generation 1.5 L2 English speakers typically will not have read a full-length novel in English prior to their enrollment in college (personal observation) and struggle with constructing meaning from traditional, print-based academic texts (Crosby, 2009; Frodesen, 2002; Roberge, 2002). In a survey of 425 presumed Generation 1.5 L2 English speakers at Northern Virginia Community College, 58 percent of survey respondents reported they had a “somewhat difficult time transitioning from high school to college level reading (Office of Institutional Research, 2004, p. 15). Another 17 percent rated the transition as “difficult,” and almost 3 percent rated it “very difficult.” Students found the transition to college level writing even more difficult. In three case studies of Generation 1.5 L2 English

speakers, discussed further in Chapter 2, Allison (2008), Crosby (2007), and Harklau (2001) found, as summarized by Allison, that “discontinuities between high school and college literacy tasks hindered bilingual language minority participants’ learning in their transition from the former to the latter contexts” (Allison, 2008, Abstract).

Examined in greater detail in Chapter 2, three themes emerge from studies on reading in a second language: reading plays a major role in vocabulary development, reading can provide instructive models of the syntactic and rhetorical patterns considered acceptable in U.S. academic English, and reading is a primary source of information on culture and academic subject knowledge. Since the research agenda in post-secondary Generation 1.5 literacy is focused on writing, however, the symbiotic relationship between reading and writing is rarely explicitly addressed. Consequently, the research base on Generation 1.5 English language learning tends to minimize the importance of reading in the development of L2 literacy curricula and instruction. The high-stakes focus on writing in traditional ESL programs may come at a particularly high opportunity cost for Generation 1.5 L2 speakers, whose heavy reliance on oracy may conceal gaps in their understanding of academic English and, to borrow a concept from Atkinson’s (2011) discussion of the sociocognitive approach to SLA research, limit their ability to participate more meaningfully in the L2 discourse community into which they are being apprenticed

### **Purpose and Rationale**

The purpose of this study was to assess the reading-related language support needs of Generation 1.5 L2 speakers of English enrolled in Level 4 (intermediate) ESL

reading classes at Northern Virginia Community College and, secondarily, to seek corroborative empirical evidence, or counterevidence, of findings from existing qualitative studies on Generation 1.5 L2 English learners/speakers. Drawing on survey research, student records, and measures of vocabulary knowledge, the study sought to document potentially important differences with respect to reading competencies and practices between Generation 1.5 L2 English speakers and L2 English speakers who completed their secondary or tertiary education before coming to the United States. While the study has immediate, practical implications for me and my institution, the systematic study of Generation 1.5 L2 English speakers may be further justified on the basis of broader theoretical, programmatic, and pedagogical concerns, each of which will be discussed in turn in the sections that follow.

**General theoretical concerns.** From a strictly theoretical perspective, it can be argued that increased knowledge of any given population of language learners contributes to our overall understanding of second-language acquisition, and the Generation 1.5 population should be no exception. Study of Generation 1.5 L2 English speakers, might, for example, yield insights into the nature and roles of implicit and explicit L2 learning (Grabe, 2009; Tarone, Bigelow, & Hansen, 2011). It might also enhance our understanding of the peaks and valleys of language learning gleaned from related areas of SLA research, including studies of the *critical period* hypothesis, language fossilization, language loss, and, in the case of vocabulary development, the phenomenon Milton (2009) referred to as “ceiling effect” (p. 233). What these constructs seem to have in common is a pattern akin to the “law of diminishing returns” in economics. As second-

language learners progress from oral fluency toward the more cognitively demanding “academic” literacy, increasingly larger amounts of effort are required for comparable gains in fluency. While large numbers of post-secondary Generation 1.5 L2 English speakers achieve a high level of oral L2 proficiency and may be described as fully functional bilinguals, few achieve parity with native English speakers across all five language domains (listening, speaking, reading, writing, thinking) (Ellis, 1994b).

Commenting on the instructional needs of functional bilinguals, di Gennaro (2008, p. 66) noted that, “despite a great deal of experience with the L2,” functional bilinguals “may reach a plateau in the L2,” exhibiting what Selinker referred to as a “non-nativeness which comes about and persists in spite of optimal learning conditions” (Han, 2004a; Long, 2003; Selinker & Lamendella, 1978, 1979 as cited in Han & Odlin, 2006, p. 7). Examples of these “non-native” error patterns include the seemingly random use of definite and indefinite articles in English by L1 speakers of Slavic languages, the frequent omission of verb tense markers in English by L1 Spanish speakers, and avoidance of the past tense (especially in its “perfect” forms) by L2 English speakers across virtually all language groups. If, as socially oriented theories of second-language acquisition posit, language learning is “grounded in the social world” (Ortega, p. 172), Generation 1.5 L2 English speakers would seem to be advantaged given that these types of error patterns rarely occur in the mainstream English language environment that surrounds them. The presumed Generation 1.5 “advantage,” however, appears to operate selectively. While interaction and comprehensible input may be necessary conditions for second language learning, the experience of Generation L2 speakers suggests they are not

sufficient, especially with respect to L2 literacy. More research on the Generation 1.5 population is needed to provide a deeper understanding of the interplay between endogenous and exogenous factors believed to be involved in second language learning and L2 literacy development and implicated in Bernhardt's (1991, 2011) compensatory model of L2 reading.

**The influence of L1 on L2 learning.** Unlike first-language learning, second language learning is mediated by knowledge of one or more previous languages. This is widely believed to account in part for persistent error patterns – carryovers from one's first language – exhibited by many second language learners. The influence of L1 on L2 learning, however, extends to other aspects of language and literacy development, discussed further in Chapter 2. Building on Cummins' (1979, 1980) Interdependence Hypothesis, studies of the L1/L2 relationship have consistently shown that level of literacy (i.e., cognitive/academic language proficiency) in L1 is a reliable predictor of level of literacy in L2. As explained by Roberge (2002), "this occurs because a wide range of skills are directly transferable from first language to second language literacy, including perceptual skills, basic word decoding skills, prediction, and decoding of syntax" (p. 122).

In addition to language-specific skills and strategies, conceptual knowledge acquired via L1 is also available to support L2 development, including L2 reading comprehension. For Generation 1.5 L2 English speakers, however, the introduction of a second language is typically associated with interruption in formal schooling, often before a foundation of L1 literacy has been established. This, in turn, may negatively

affect both L1 and L2 literacy development. Goen, Porter, Swanson, and Vandommelen (2002), for example, found that even among Generation 1.5 students who said they felt more comfortable reading and writing English than their home language, nearly two-thirds considered their level of literacy in both languages weak.

Precisely because Generation 1.5 L2 English speakers are spread along a continuum with respect to first language literacy, L1/L2 language distance, and age/grade level at commencement of L2 acquisition, cross-sectional studies of their L2 development may yield unique insights into what Sousa (2011) described as “the linguistic reorganization needed to acquire another language after the age of 5 years” (p. 3).

**The placement conundrum.** Important as theoretical justifications may be, more pragmatic concerns have driven most of the published research on Generation 1.5 L2 English speakers. Two areas that have received special attention are placement and pedagogy. With respect to placement, policies vary widely among post-secondary institutions. Typically, following some form of diagnostic testing Generation 1.5 L2 English speakers are placed in one of three settings: freshman-level, mainstream English composition courses together with monolingual, English-only students; preparatory or “developmental” English composition courses designed primarily for monolingual, English-only students whose scores on standardized tests indicate that, at least with respect to their rhetorical skills, they are not yet ready for college-level coursework; or ESL courses, principally in reading and composition, historically designed to prepare non-native English speaking international students (visa students and recent émigrés) to

function in college-level content courses in which English will be the language of instruction.

In making placement decisions, colleges and universities are guided in part by standardized test scores (e.g., TOEFL® (formerly known as Test of English as a Foreign Language), Michigan Test of English Language Proficiency, the College Board's Accuplacer Levels of English Proficiency, the American College Testing Program's Compass ESL Placement Test, etc.). In many, if not most, settings, however, a single, holistically scored writing sample (in response to a locally developed writing prompt and typically scored by a single reader) weighs most heavily in the placement decision (Frodesen & Starna, 1999).

During the application process, Generation 1.5 L2 English speakers often are not identified as such, especially in open admissions community colleges, which may have no official record of an applicant's language background. At Northern Virginia Community College, for example, the process begins with a brief interview at a campus testing center. The interviewer asks a number of questions, including questions about the applicant's use of English outside the classroom. Based on the results of this initial screening, applicants take either a version of the Compass English test designed for L1 English speakers or three sections of the Accuplacer ESL battery. An L1 or L2 English speaker who scores at or above a cutoff score on the Compass test goes directly to freshman-level English. An L1 or L2 English speaker scoring below the Compass cutoff is placed in a noncredit developmental English course or courses. Meanwhile, L2 English speakers who score below a predetermined cutoff on the Accuplacer are placed in Level 2



or 3 of a 5-level, academic (noncredit) ESL program; L2 English speakers who score above this Accuplacer threshold write an essay under controlled conditions in a campus testing center. Normally, the essay is read by a single full-time ESL instructor, who typically assigns the student to the Level 3, 4, or 5 ESL courses deemed appropriate to his or her needs. (At NOVA, reading and composition courses are taught separately, although writing courses involve some reading, and reading courses involve some writing.)

Not surprisingly, placement decisions regarding Generation 1.5 L2 English speakers are often contentious. As Frodesen and Starna (1999), among many others, have noted, students who may have spent years in secondary ESL programs are “dismayed to discover that they have been placed into [college] ESL after having been mainstreamed in secondary school” (p. 62). While advanced L2 English speakers tend to make different types of errors in speaking and writing academic English than their L1 English speaking peers who are placed in developmental English programs, the line that separates them is fuzzy.

One of the aims of the study described here was to contribute to the development of more transparent, more reliable means of identifying and placing Generation 1.5 L2 English speakers, a move that would be welcomed by students and instructors alike.

**Language support for L2 English speakers.** In addition to the need for researched-based criteria and procedures to guide language placement decisions in post-secondary settings, there is also a closely related need to rethink the form and content of language support provided to Generation 1.5 L2 speakers of English. The language

abilities of post-secondary Generation 1.5 L2 English speakers vary greatly and so, too, do their language support needs. How these needs get addressed depends, in the first instance, on whether the students are “mainstreamed” with native speakers in language and other general education courses, or whether they are initially placed in developmental/remedial English or in an ESL program. Given the in-betweenness of Generation 1.5 L2 English speakers, it often happens that none of these options is a comfortable fit.

The concept of learner centered, differentiated instruction, focused on tailoring instruction to individual needs, has been researched extensively in general education and may have important implications for second language classroom instruction as well. Bernhardt (2007/2008), for example, referred to what he described as “an abundance of literature” supporting “the use of differentiated instruction in *foreign* [emphasis added] language education” (p. 129). The application of differentiated instruction in post-secondary ESL classrooms, however, has not received a great deal of attention in the literature of second language acquisition. To the extent that the concept has been invoked in addressing the needs of second language learners, the emphasis has been on accommodating the needs of non-native speakers in mainstream language and content courses. (See, for example, Ferris, Brown, Liu, & Arnaudo Stine, 2011; Fox, 1994.)

Surrounded by native speakers and English language media, and immersed in ESL and content courses that optimize opportunities for the development of oral language, elementary and secondary Generation 1.5 ELLs in the United States (and presumably other English speaking countries) achieve a level of idiomatic oral fluency

that may mimic that of native speakers. In contrast, English language learners in non-English speaking countries who approach English as a foreign language (EFL) have fewer opportunities to interact with other English speakers and tend to learn English via more traditional curricula that emphasize structure over communication, reading over speaking. While post-secondary Generation 1.5 L2 English speakers may draw on their facility with oral English and familiarity with the discourse of an American classroom to support the further development of academic English, international and visa students who received most or all of their secondary schooling in their home countries tend to bring more advanced metalinguistic and content knowledge to their U.S. classroom experience. This implies substantially different approaches to second-language instruction and support.

As noted above, post-secondary ESL programs are often seen as marginally relevant to the needs of Generation 1.5 L2 English speakers. As several studies have highlighted, despite the exponential growth of the Generation 1.5 population in the U.S. educational system, the curricula of post-secondary ESL programs typically focus on international students, that is, visa students and recent émigrés whose oral language skills and knowledge of U.S. culture are relatively underdeveloped. Not only does this orientation not address the particular needs of Generation 1.5 L2 English speakers, it alienates many of these students, who resent being stereotyped as “foreigners” and English language novices.

If, as the present study argues, Generation 1.5 L2 English speakers share common characteristics with respect to literacy development not shared – or shared in lesser

degree – by other L2 English speakers, a fuller understanding of the Generation 1.5 L2 English learning experience is arguably a necessary step toward identifying their unique language learning needs and tailoring language support services to meet those needs. In short, the further study of Generation 1.5 L2 English speakers has potentially important programmatic and pedagogical implications.

### **Research Questions**

In her introduction to *Insights into Second Language Reading*, Koda (2004) stated that “an essential first step in gaining a clear understanding of L2 reading development is to determine the particular learning characteristics of the specific group involved” (p. 7). To that end, the study proposed here will use the Generation 1.5 metaphor as an overarching framework for an examination of reading-related challenges facing post-secondary, long-term-resident L2 English bilinguals, the resources they bring to the task, and the manner in which they approach the development of the reading skills and strategies needed to succeed academically. In order to highlight the “particular learning characteristics” of the target population, the study will compare Generation 1.5 and EFL-educated L2 English speakers enrolled in multiple sections of an ESL Level 4 reading course at Northern Virginia Community College by addressing the following questions:

1. What are the similarities and differences between Generation 1.5 L2 English speakers and their classmates in an ESL Level 4 reading class who received all or most of their K-12 schooling outside of the United States on demographic, cognitive, and linguistic variables believed to reflect or predict success in second-language reading?

2. What are the similarities and differences between Generation 1.5 L2 English speakers and their classmates in an ESL Level 4 reading class who received all or most of their K-12 schooling outside of the United States on measures of reading performance, perceived efficacy as second-language readers, and use of reading strategies?

3. What are the similarities and differences between Generation 1.5 L2 English speakers and their classmates in an ESL Level 4 reading class who received all or most of their K-12 schooling outside of the United States with respect to the self-reported reading they do for pleasure and other purposes not related to school or work?

### **Summary**

The population of L2 English learners/speakers identified in second-language acquisition research as Generation 1.5 comprises long-term U.S. residents whose prolonged contact with English as a “working” language and immersion in American culture distinguish them in many respects from both monolingual, native English speakers and traditional post-secondary ESL students whose experience with English was largely as a foreign language. Generation 1.5 students typically develop near-native oral language proficiency, but their academic literacy skills tend to lag behind those of their U.S. high school graduate peers. Since the Generation 1.5 knowledge base derives largely from small-scale, qualitative studies focused on writing, there are significant gaps in our understanding of this population and how best to support their L2 English language and literacy development at the post-secondary level.

This chapter highlighted the need for additional Generation 1.5 SLA research and especially for quantitative and mixed-methods studies that seek to validate or expand

upon the findings of smaller, qualitative studies. This chapter argued in particular for additional research focusing on the important role of reading to the development of the advanced language and literacy skills needed for success in college. The chapter concluded by posing a trio of research questions addressed to the research gap identified in this chapter and grounded in the literature base reviewed in Chapter 2.

## CHAPTER TWO

This study was informed by research in three areas: research focused specifically on postsecondary Generation 1.5 L2 English learners and speakers, studies drawn from the broader field of second language acquisition (SLA), and studies focused on reading in a second language (L2). Based on my ten-plus years of post-secondary classroom experience with Generation 1.5 and other populations of L2 English speakers, I begin with the assumption underpinning virtually all Generation 1.5 research that classifying L2 English speakers on the basis of sociolinguistic experience (in the present instance, the experience of balancing the demands of the language and culture of home versus the language and culture of school) is both empirically and conceptually sound in that the population of interest can be operationally defined and, with respect to second language learning, may reasonably be expected to be influenced by the unique, or at least particular, aspects of their shared cross-cultural experience. Support for this proposition may be inferred also from the larger body of literature on second language acquisition in which social context has been shown to influence second language acquisition.

While each of the three lines of research that inform this study developed largely independently of the others, all trace their modern roots to the post-behaviorist mid-1950s and 1960s (see, for example, Samuels & Kamil's (1998/2000) discussion of "Models of the Reading Process" and Atkinson's (2011) discussion of "Cognitivism and Second

Language Acquisition.”) For much of the 20th century, cognitivist models dominated research in SLA and reading (Atkins, 2011; Bernhardt, 2011), but by the time Generation 1.5 English learners began to attract scholarly attention in the 1990s, constructivist views of learning and teaching were well established. In contrast to cognitivist models, which emphasized the properties of languages and texts, constructivist models stressed the roles of the learner and social context, positing the active involvement of learners in the making of meaning (Brooks, 2013; Narayan, R., Rodriguez, C., Araujo, J., Shaqlaih, A., & Moss, 2013). While this involved a paradigm shift for research in SLA and reading, for Generation 1.5 research, linked as it was to the socially oriented field of immigration research, it simply constituted a different starting place. As a result, Generation 1.5 scholars have been less concerned with describing and explaining the cognitive processes involved in learning to read and speak in a second language than in studying language use and the social contexts in which that use takes place. The common thread uniting contemporary research across all three disciplines is a growing recognition of the interactive, social nature of both language learning and reading. Interactive models of reading and of second language acquisition typically highlight the complex nature of both processes, view both as active (as opposed to passive) activities, and emphasize the interplay of multiple factors and actors.

The present study acknowledges the hazards of “construct[ing] SLA as an abstract cognitive process that is unaffected by social context” (Tarone, Bigelow, & Hansen, 2011, p. 112) (See also, Atkinson, 2011, and Bernhardt, 2011). At the same time, it recognizes the continued relevance of cognitive approaches to understanding language



learning, which may be better positioned to explain the persistence of non-native-like error patterns that characterize the written and oral language of many Generation 1.5 L2 speakers enrolled in post-secondary ESL programs. The study likewise acknowledges the important role accorded direct instruction in balanced approaches to both language and reading pedagogy that undergird much of traditional research in SLA and reading.

### **Research on Generation 1.5 L2 English Learners/Speakers**

At its best, Generation 1.5 SLA research may be characterized as what Roberge (2009) referred to as “part of a dialogue about educational change, by educators who want to promote access, equity, and student success” (p. 7). The research base on post-secondary Generation 1.5 L2 English learners/speakers, however, is relatively small, and a substantial portion of what does exist is descriptive in nature and, to a large extent, based on case studies (di Gennaro, 2009; Doolan, 2010/2011; Mikesell, 2007). Typical of these is Leki’s (1999, 2007) longitudinal studies of the literacy development of four L2 English undergraduate students. A small number of scholars, however, have turned to quantitative methods (chiefly corpus analysis), which, as suggested later in this chapter, may signal the beginnings of a second generation of Generation 1.5 SLA research.

Two frequently cited collections of research on L2 English learners/speakers have been particularly influential in establishing the Generation 1.5 research agenda and informing Generation 1.5 pedagogy. The first volume, *Generation 1.5 Meets College Composition: Issues in the Teaching of Writing to U.S.-Educated Learners of ESL* (Harklau, Losey, & Siegal, 1999), “set out to explore and focus the topic of generation 1.5 immigrants” (Roberge, Siegal, & Harklau, 2009, p. vii), linking the disciplines of

immigration studies and second language acquisition research in a way that would affirm a niche for an emerging line of research. This was followed a decade later by *Generation 1.5 in College Composition: Teaching Academic Writing to U.S.-Educated Learners of ESL* (Roberge, Siegal, & Harklau, 2009), whose goal, according to its authors, was to extend the dialogue opened in the first volume and to “serve as a text in teacher education courses in the field of TESOL, Composition, and Language Arts” (p. vii).

As di Gennaro (2009) noted, “investigations into observable and measurable differences [between Generation 1.5 and other post-secondary L2 English speakers] have been minimal” (p. 533). Of the 12 chapters in Harklau, Losey, and Siegal (1999), none reported on research that could be characterized as experimental or quasi-experimental. Three studies (Hartman & Tarone; Lay et al.; and Wolfe-Quintero & Segade) were based on interviews with relatively small samples of students ( $n < 30$ ) and/or instructors. One chapter (Chiang & Schmida) reported the results of a large-scale survey ( $n = 471$ ) of first-year university writing students, but focused on in-depth interviews with 20 students selected randomly from the larger sample. Combining both quantitative and qualitative data, Muchinsky and Tangren coupled an analysis of test score data and program outcomes for 22 nonnative English speakers (among them 13 Generation 1.5 students) with qualitative observations of instructors. Of the remaining seven chapters, three (Frodesen & Starna; Leki; and Rodby) reported on case studies involving four or fewer participants. One chapter consisted of a meta-analysis of studies on teacher feedback in L2 writing classes (Ferris), and three chapters were descriptive or opinion chapters (Blanton; Harklau, Siegal, & Losey; and Johns).

Among classroom instructors who work with Generation 1.5 L2 English learners/speakers on a daily basis, conventional wisdom is informed as much by anecdotal evidence as by systematic research, and impressions often are based on the perceived challenges and frustrations of working with the Generation 1.5 population. Reporting on a restructuring of the writing program at California State University, Chico, Rodby (1999), for example, wrote that she and her colleagues had been “confounded by the patterns of failure and success” (p. 46) of nonnative English-speaking resident (i.e., Generation 1.5) students, students who, in the words of Frodesen and Starna (1999) “are not easily characterized as ESL students” (p. 62).

In a second look at interview responses from an earlier study, Hartman and Tarone (1999, p. 109) reported on generalizations voiced by ESL and mainstream teachers of Southeast Asian American secondary students in Minneapolis-St. Paul. Teachers told interviewers that LEP (Limited English Proficient) students “could not get their ideas across in writing,” “had trouble thinking in a logical mode,” and “lacked the vocabulary to express their ideas, let alone the expression of critical thinking skills required in [the] classroom.” Instructors in the University of Nebraska-Lincoln IEP (Intensive English Program) expressed concern to Muchinsky and Tangren (1999) that “many of these [Vietnamese Generation 1.5 language learners] appeared to be comparatively ‘lacking in self-motivation,’ and ‘mellowed toward academics’” (p. 223).

In a study focused on accountability in learning and teaching in a New York community college, Hinkle (2006) reported a range of skeptical to negative views of the capabilities and motivations of Generation 1.5 ESL students expressed by three veteran

faculty members teaching in a pilot ESL program designed specifically for Generation 1.5 L2 English speakers. According to Hinkle, “each indicated that their frustration with Generation 1.5 students had taken its toll, and their initial enthusiasm had been replaced by frustration and ambivalence” (pp. 110-111). The instructors typically described program participants as “lacking in focus,” “disengaged,” “behaving as if they were still in high school,” “defiant,” and “on the outside looking in.”

**Naming and defining the Generation 1.5 population.** Given the considerable diversity that characterizes the Generation 1.5 population and the range of perspectives and sensitivities of practitioners and researchers in the disparate fields of immigration studies, education, applied linguistics, and second language acquisition, it is perhaps not surprising that the field has struggled to reach consensus on what constitutes membership in the class of L2 English learners/speakers designated as “Generation 1.5,” or, for that matter, what to call them. Ruben G. Rumbaut (2004), a lifelong scholar of the long-term effects of migration, claims to have coined the term “Generation 1.5,” first used in a 1976 conference paper describing Rumbaut’s experience as a young émigré and member of “the One-and-a-Half Generation” (p. 1166). Most Generation 1.5 SLA scholars, however, trace the term to Rumbaut and Ima’s (1988) seminal study of Southeast Asian “refugee” students, arguably the beginning of Generation 1.5 research designated as such.

Rumbaut and Ima (1988) looked at four data sets: a quantitative, longitudinal study of 24,660 youths living in San Diego, California, during the early to mid-1980s; records from San Diego City Schools; San Diego County probation files; and intensive interviews with a sub-sample (n=12) of the quantitative study. While language was an

important component of the study, the authors' focus was more cultural than linguistic. Variables of interest included indices of "educational attainment, occupational aspirations, and problem areas (such as school dropouts and suspensions, and juvenile delinquency)" (p. 12).

In the introduction to their study report, Rumbaut and Ima (1988) defined the Generation 1.5 population as "a distinctive cohort . . . born in their countries of origin but formed in the U.S." (p. 1). They argued further that members of the Generation 1.5 cohort "are in many ways marginal to both the new and old worlds, for while they straddle both worlds they are in some profound sense fully part of neither of them" (p. 1). Finally, Rumbaut and Ima argued that members of Generation 1.5 "generally share a common psychohistorical location in terms of their age and their migration status/role, and in terms of developing bicultural strategies of response and adjustment to that unique position which they occupy as '1.5'ers' – in the interstices, as it were, of two societies and cultures, between the first and second generation, between being "refugees" and being 'ethnics' (or 'hyphenated Americans')" (pp. 1-2).

In some studies, Generation 1.5 L2 learners/speakers are referred to as the "one-and-a-half generation" (e.g., Gonzales-Berry, Mendoza, & Plaza, 2006). Zhou (1997) included them as a subpopulation of what she termed "the new second generation" (p. 64), comprising, among others, children of immigrant parentage born in this country. (For a discussion of issues related to the "definition and empirical identification of immigrant 'first' and 'second' generations in the United States" see Rumbaut, 2004, p. 1160.) Kanno and Harklau (2012) referred to them as "linguistic minority students," while

Kibler, Bunch, and Endris (2011) described them as “U.S. educated language-minority students.” Roberge, Siegal, and Harklau (2009), in their introduction to the *Generation 1.5 in College Composition*, noted that contributors were “encouraged to follow their own definitions of ‘generation 1.5’ as long as their definitions avoided what the authors termed “deterministic descriptions” (p. vii).

As noted in Chapter 1, Generation 1.5 L2 English learners/speakers are sometimes subsumed under the broader rubric of “immigrant,” or even “refugee.” As far back as the mid-1950s, Slager (1956) called attention to the differing instructional needs of “immigrant” (long-term, resident regardless of legal status) versus “foreign” (recently-arrived) English language learners, arguing that “there are sound linguistic arguments to support a separation of the groups” (p. 25). The term “immigrant,” however, sweeps in not only what Rumbaut and Ima (1988) would later characterize as Generation 1.5 L2 English learners, but long-term resident, EFL-educated L2 English speakers as well; therefore, it fails to capture what many consider to be an essential feature of the Generation 1.5 experience: i.e., the “in-betweenness” associated with having roots in one culture and language while being formally schooled in another. The term “refugee,” on the other hand, is too restrictive insofar as not all long-term immigrants are refugees in the sense that the term is defined in consular law and widely understood in popular usage. In addition, the term “refugee” may connote different expectations than the term “immigrant” when used in the context of schooling and background education.

The issue of nomenclature in research on Generation 1.5 L2 English learners/speakers is further complicated by a disconnect, highlighted by Roberge (2009),

between K-12 and postsecondary SLA scholarship. In research at the elementary and secondary levels, the Generation 1.5 designation serves little purpose since, with the exception of L2 English learners/speakers born in the United States, virtually all K-12 English language learners are, by definition, Generation 1.5; hence, in studies at this level, terms such as long-term English learner (Flores & Rafal, 2008), ESL/ESOL, Limited English Proficiency, or simply “English learners” are more common. One consequence of the use of multiple terms to describe essentially the same population of L2 English learners/speakers is the challenge posed to SLA scholars in identifying and comparing disparate studies relating to this population. In addition, the lack of precision in defining and describing Generation 1.5 L2 English learners/speakers makes it difficult to assess the magnitude of scholarship in this field.

**Criteria for inclusion.** The debate over whom to include in the construct of Generation 1.5 focuses largely on three criteria: country of birth, age upon immigration, and years of schooling completed in the United States. At the post-secondary level, Generation 1.5 SLA researchers have focused almost exclusively on foreign-born, long-term U.S. resident L2 English speakers, reflecting the model established by Rumbaut and Ima (1988). More recently, however, some researchers (e.g., Rodriguez, 2006) have expanded the construct to include children of immigrant parents born in the United States, that is, indigenous language minority groups, giving rise to yet another research focus: “heritage speakers.” Valdés (2000) defined the construct of “heritage speaker” as “a student who is raised in a home where a non-English language is spoken, who speaks or merely understands the heritage language, and who is to some degree bilingual in

English and the heritage language” (p. 1). While “heritage speakers” are peripheral to the study described here, and, indeed, in the bulk of published Generation 1.5 SLA research, they are represented in very small numbers in NOVA ESL classes; in this study, however, there were no U.S.-born Generation 1.5 participants.

While birth outside the United States is increasingly less likely to be regarded as a defining characteristic of membership in the Generation 1.5 population, the vast majority of long-term, resident L2 English learners/speakers still are technically first-generation immigrants or refugees. As a result, age at immigration remains a variable of interest for some Generation 1.5 SLA researchers; however, there is no consensus on whether this should be regarded as a defining criterion and if so how inclusive the age span should be. Younger immigrants (those six years old and younger) typically enter the U.S. educational system via kindergarten or first grade and may spend all of their elementary and secondary schools years in “mainstream” classrooms with native English speakers. By definition, these students are first-generation immigrants; however, because they “grow up American” (Portes & Rumbaut, 2001; Zhou & Bankston III, 1998), in many respects they are more like true second-generation immigrants than first-generation immigrants. As a result, the “threshold” for inclusion in the category of Generation 1.5 is often set in the range of 4 to 6 years old.

The selection of age 4 to 6 as a threshold has added significance for Generation 1.5 SLA scholars since parallel research on age effects in second language development (Ioup, 2005) posits the existence of an optimal, sensitive period for second language acquisition that closes, or at least begins to diminish, after roughly age 5 (but may extend



into the teen years). This line of research is grounded in L1 research on the Critical Period Hypothesis (CPH). As Ioup (2005) notes, however, “there is much less agreement on the applicability of the CPH to second language acquisition” (p. 421). The influence of age on second language learning will be discussed further in a later section of this chapter.

At the other end of the spectrum, Generation 1.5 SLA researchers generally are not concerned with a “cut-off” age; in post-secondary research, however, the implicit assumption is that a member of the Generation 1.5 population will have completed most or all of his or her formal K-12 schooling in the U.S. educational system. For most students this occurs around age 18. Despite the straight-line relationship between age of arrival and years spent in the U.S. educational system, the works of Collier (1987, 1989) and Cummins (1981a) suggest that it is the latter that is more relevant in explaining variability in second language success in an L2 English educational environment. While this distinction may appear of little consequence, both age of arrival and time spent in the U.S. educational system are linked to maturation, which must be recognized as a potential confounding variable in correlational studies focused on age or on time spent in the U.S. educational system. This topic will be addressed further in the section on studies drawn from the broader field of second language acquisition.

**Quantitative approaches to Generation 1.5 SLA research.** As highlighted in Chapter 1 and earlier in this chapter, what might now be considered the first generation of Generation 1.5 SLA research consisted largely of small-scale, qualitative studies prompted by a surge in enrollments of Generation 1.5 L2 English learners/speakers, first

in the K-12 system and subsequently in post-secondary institutions, in the 1990s and beyond. Since the bulk of that research reflected a sociocultural perspective, the question of whether a model borrowed from the field of immigration studies might have relevance in other areas of SLA research was seldom explicitly addressed. More recently, however, Doolan (2010/2011), among others, has called attention to this issue and may have signaled the beginnings of a second wave, if not a second generation, of Generation 1.5 research. In framing a corpus-based study of Generation 1.5 writers, Doolan noted that

Teacher impressions, intuition, and qualitative work are extremely important to our understanding of Generation 1.5 writing. The next step, however, is to determine whether the patterns we think we see in the classroom, or within the work of one or two students, are, in fact, generalizable to larger numbers of students and whether those patterns are unique to Generation 1.5 writing or more generally are a challenge for developmental writers. (p. 104)

While still focused on the domain of writing and motivated by the widely shared perception that Generation 1.5 L2 English learners/speakers are ill-served by traditional composition courses offered to bilingual students at the post-secondary level, a handful of recent studies have incorporated a sociolinguistic perspective and employed quantitative methods in an effort to strengthen the underpinnings of Generation 1.5 SLA research. Each of the five studies summarized below seeks to identify and measure specific variables that might inform both placement decisions and the design of curricula and instruction. Four of the five are corpus-based studies and employ software applications and tools (e.g., WordSmith and The Compleat Lexical Tutor) now widely accessible to

researchers via the internet. While still small-scale in nature, these studies offer potentially useful models that may have implications not just for composition studies but for studies in other areas of Generation 1.5 SLA research as well.

Using a combination of Rasch and “classical” measurement models, di Gennaro (2009) compared the writing performance of 43 Generation 1.5 and 54 “international” students, defined in the study as students who “attend institutions of higher education in an L2 after having completed high school in their home countries” (p. 534). di Gennaro found that Generation 1.5 students in her sample wrote longer, “more rhetorically appropriate” compositions, whereas the “international” students were stronger on content. The two groups “did not differ significantly with regard to grammatical control, cohesive control, or sociolinguistic control” (p. 552).

In a three-“module,” multi-method doctoral thesis featuring both corpus and discourse analyses, Connerty (2009) compared college freshman Generation 1.5 L2 English speakers with demographically comparable groups of ESL (i.e., long-term resident L2 English speakers who had completed their secondary education outside of the United States) and L1 English speakers. Study results appeared to affirm anecdotal evidence of the “betweenness” of Generation 1.5 students. Generation 1.5 writers in Connerty’s study shared much in common with their peers from the other two groups, but also displayed distinct features in their writing that pointed towards a unique Generation 1.5 identity. Among other things, Connerty found the writing of Generation 1.5 L2 English speakers “closer to conversational English than that of NS [native speaker] or ESL students” (p. 349). She noted, for example, that Generation 1.5 students in her study

tended to write in a less formal, more narrative style and “fail[ed] to use academic conventions in their writing” (p. 350). Connerty interpreted these findings as evidence of a striving among Generation 1.5 writers to “define their own voice within a system that historically has not been designed to accommodate the other either socially or academically” (p. 351, emphasis in the original).

Doolan (2010/2011) and Doolan and Miller (2012) similarly used a combination of corpus-based and qualitative analyses in efforts to isolate linguistic and textual features that might identify Generation 1.5 writers as a distinct group. Comparing writing samples from 41 Generation 1.5 students and 20 English L1 students enrolled in developmental writing classes in a California community college, Doolan (2010/2011) found little difference between the two groups across 25 language-related variables “associated with vocabulary abilities, lexical sophistication, fluency, cohesion, and complexity” (p. 102). Doolan noted, however, that, because all writers in the study were enrolled in developmental writing classes, the comparison was between “below-grade Generation 1.5 writing and below-grade-level L1 writing” (p. 100), making it difficult to refute the argument by some Generation 1.5 researchers that, while “Generation 1.5 writing may resemble developmental L1 writing . . . it is *not* [emphasis in original] L1 developmental writing, but instead some combination of L1 and L2 writing with features of both” (pp. 100-101).

Focusing more narrowly on error patterns, Doolan and Miller (2012) analyzed a corpus of writing samples and survey responses from 41 Generation 1.5 students, 2 “traditional” ESL (i.e., non-English L1 international and recently arrived immigrant)

students, and 20 L1 English speakers enrolled in L1 (native speakers) or L2 (non-native speakers) developmental English classes in an unidentified Western community college. Quantitative analysis revealed significant differences on four of nine error types (verb errors, prepositional phrase errors, word form errors, and total identified errors) between Generation 1.5 and L1 English developmental writers. Generation 1.5 writers produced more errors in each category. Qualitative analysis “suggested that Generation 1.5 writers attempted more complicated sentences structures” (p. 12) than their L1 or L2 peers. The researchers concluded that “the category of Generation 1.5 writing may indeed be characterized in part by an increased likelihood of difficulty in controlling the accuracy of various language forms” (p. 3).

In yet another corpus-based study of L2 English writing, Mikesell (2007) examined the use of past participles by students enrolled in writing classes at the University of California, Los Angeles (UCLA). Corpora for this study comprised 58 essays written by students identified by the university as Generation 1.5 students and 73 essays written by L2 English speakers not identified as Generation 1.5 (presumably recent immigrants and international students). Slightly more than half of the Generation 1.5 students and all of the non-Generation 1.5 students were enrolled in an advanced ESL writing course; the remaining Generation 1.5 students were enrolled in a composition course designed specifically for Generation 1.5 L2 English speakers. The number of past participle errors found in the two corpora was the same, but the types of errors differed significantly. While Generation 1.5 writers struggled with the morphological form of past participles, the non-Generation 1.5 writers “tended to make errors using the correct form

in an inappropriate linguistic context” (p. 7). Mikesell interpreted study results as evidence that “the ways in which Generation 1.5 students acquire English is clearly related to the type of errors they make, at least with respect to past participles” (p. 24).

### **Situating Generation 1.5 Research in the Broader Field of SLA Scholarship**

Reading in a second language is, ipso facto, different from what a monolingual speaker experiences when reading in his or her single, native language. As Bernhardt (2003) explains, “the mere existence of a *first*-language (regardless of whether it is only oral, or oral and literate) renders the *second*-language reading process considerably different from the first-language reading process because of the nature of information stored in memory” (p. 112). Because of this unique role of language in second-language reading, any study of second-language reading must take into detailed account what is known about how second languages are learned and used.

The literature base in second language acquisition is extensive and has been extensively reviewed in works such as the two-volume *Handbook of Research in Second Language Learning and Teaching* (Hinkel, 2005, 2011) and *The Handbook of Second Language Acquisition* (Doughty & Long, 2003); in book-length, single-author reference works such as *The Study of Second Language Acquisition* (Ellis, 1994b); in peer-reviewed, journal-length syntheses such as Dixon et al. (2012); and in theory-oriented overviews such as Atkinson’s (2011) *Alternative Approaches to Second Language Acquisition*, Macaro’s *The Continuum Companion to Second Language Acquisition*, and Mitchell and Myles’ (2004) *Second Language Learning Theories*. This research-based body of scholarship is the foundation undergirding both Generation 1.5 SLA research and

L2 English reading research. Three heavily researched topics from this broader field of SLA scholarship that have received little or virtually no attention in empirical studies focused more narrowly on the Generation 1.5 population are age effects, the effects of interrupted schooling on subsequent L2 language development, implicit versus explicit language learning, and L1/L2 interaction. Each of these topics will be examined in the sections that follow, and two (L1/L2 interaction and implicit versus explicit language learning) will be revisited in the final section of this chapter, which will focus on literature related to reading in a second language.

**Studies of age effects.** Age is often highlighted in elementary and secondary Generation 1.5 research but is less often addressed, even peripherally, in research focused on post-secondary L2 English learners/speakers. It is a factor of interest because of its presumed contribution to variability in the cognitive, linguistic, and sociocultural knowledge that Generation 1.5 L2 English learners/speakers bring to the post-secondary classroom. Viewed through the lens of Generation 1.5 SLA scholars, age-related variables of particular interest are age on arrival (typically the age at which formal schooling in English begins) and length of residence (normally measured in years in the L2 learning environment, though not necessarily contiguous years). In the broader field of SLA research, age of onset or age of initial learning (the age at which L2 English study begins, whether in an ESL or EFL setting) may be more relevant than age on arrival. (In the case of Generation 1.5 L2 English learners/speakers, age of onset and age on arrival are often the same; consequently, the two terms are sometimes conflated.) In studies of

older L2 learners/speakers, age of testing has, more recently, also been identified as a variable of interest (DeKeyser, Alfi-Shabtay, & Ravid, 2010).

***The younger is better argument.*** Based more on anecdotal “evidence” and perception than empirical research (Bowden, Sanz, & Stafford, 2005; Hyltenstam & Abrahamsson, 2003), the belief that younger second-language learners are privileged is widespread. One consequence of this assumption is the expectation that, by the time they finish their secondary education, Generation 1.5 L2 English learners/speakers will be competent across all five domains of L2 usage (i.e., listening, speaking, reading, writing, and thinking) (Collier, 1989; Harklau & Siegal, 2009). The reality, however, is that “achieving nativelike proficiency in a second language (L2) seems to be the exception rather than the norm” (Bowden et al., 2005, p. 105). As stated by Hyltenstam and Abrahamsson (2003), “for child learners . . . everything short of nativelike levels is seen as failure” (p. 539). Unrealistic expectations with respect to what constitutes – or what should constitute – “ultimate attainment” in second language learning are a continuing source of frustration for post-secondary Generation 1.5 students and their instructors (Fox, 1994; Harklau & Siegal, 2009; Leki, 1999, 2007; Zamel, 2012) and contribute to the types of classroom tensions discussed earlier in this chapter and alluded to in Chapter 1.

Understanding the impact of age on second language learning is challenging, in part because of the difficulty of studying the effect of age apart from such confounding variables as biological maturation (Bialystok, Craik, & Luk, 2008; Bialystok & Hakuta, 1999; DeKeyser et al., 2010; Hyltenstam & Abrahamsson, 2003; Singleton & Ryan,



2004), level of cognitive development through formal schooling in the L1 (Blanton, 2005; Collier, 1989; Cummins, 1979, 1981b), language aptitude (DeKeyser et al., 2010), L1/L2 interaction (Bialystok & Hakuta, 1999; Singleton & Ryan, 2004), and language distance. Even carefully conducted empirical studies are subject to widely varying interpretations (DeKeyser et al, 2010; Hyltenstam & Abrahamsson, 2001, 2003).

Pre-pubertal learners do appear to have the upper hand in some areas, including the acquisition of “basic L2 skills needed for interpersonal communication” (Collier, 1989, p. 513), mastery of native-like pronunciation, and whatever advantages that may accrue generally to longer time on task. Drawing on an exhaustive review of studies on “the age factor” in second language learning, Singleton and Ryan (2004) found “some good supportive evidence” and “no strong counter-evidence” that “those who begin learning an L2 in childhood in the long run generally achieve higher levels of proficiency than those who begin later in life” (p. 115). Hyltenstam and Abrahamsson (2003) concluded that “research has demonstrated that young starters seem to end up as nativelike speakers of the L2, which is rarely, if ever the case for adult or adolescent starters” (p. 546). Bowden et al. (2005) claim that “AoA [age on arrival] has been shown to be the best predictor of L2 performance” (p. 109). In the case of younger children, however, Collier notes that, at least in the initial stages, their “second language acquisition appears superior largely because the structures and vocabulary younger learners need for adequate communication are so much simpler than those required of adults” (p. 513).

Despite the apparent long-term advantage enjoyed by younger learners, older child learners (and even adult learners) appear to enjoy short-term advantages in some areas, especially in the initial phase of second-language learning (Bialystok & Hakuta, 1999; Collier, 1989). Based on a comprehensive synthesis of evaluation research on academic achievement in a second language, Collier concluded that “students initiating second language acquisition between the ages of 8 and 12 [were] faster in early acquisition of L2 skills” and were likely to “maintain a greater cognitive advantage over younger children initiating second language acquisition at 4 to 7 years of age” (pp. 513-514). The presumed cognitive advantage, however, applied only to those older students whose first-language development prior to the commencement of schooling in the second language was consistent and uninterrupted.

Implicit in the “younger is better” argument is the aforementioned notion of a “critical” or “sensitive” period. This line of research is rooted in studies demonstrating “a predictable sequence of events and, within certain limits, a predictable chronology” (Singleton & Ryan, 2004, p. 4) associated with child L1 speech development. In its original, 1967 formulation by Lennenberg (as cited in Hyltenstam & Abrahamsson, 2003), the Critical Period Hypothesis (CPH) attempted to explain the seemingly universal experience in child cognitive development of “automatic [L1] acquisition from mere exposure to a given language” (p. 540). Lennenberg believed that the hypothesized critical period disappeared after puberty. As CPH research has evolved, the focus has shifted to the nature and timing of the hypothesized cutoff. Based on accumulating evidence, Ioup (2005) concludes that “most researchers agree that there is a critical

period for mother tongue or first language (L1) learning” (p. 420). The idea of a biologically-constrained “critical period” in second language learning, on the other hand, has been strongly challenged.

Findings from several decades of age of onset (OA) studies are often cited in support of the existence of a critical period in second language acquisition, but the data have been subject to widely varying interpretations. At issue are such questions as whether there is an abrupt end to language-learning capacity, and if so, at what age it occurs; whether universal grammar (Chomsky, 1981) is available to support second language acquisition (Ioup, 2005); and whether the presumed decline in language-learning ability is unique to language learning or simply part of general cognitive decline over a lifetime. Further still is the lingering question of what constitutes a valid measure of “ultimate attainment.” As DeKeyser et al. (2010) note, at the core of the debate is “the very nature of the age of acquisition-ultimate attainment function, which is centered on the question of *whether the discontinuity in development implied by the CPH* [Critical Period Hypothesis] *is found in the various data sets that [have been] analyzed*” (p. 414) [emphasis added]. Hyltenstam and Abrahamsson (2001) conclude that “the existence of maturational constraints on SLA remains an open question. However, the evidence for some sort of maturational constraints is comparatively much more substantial than the evidence against them” (p. 153).

While acknowledging a statistical correlation between “age of initial learning and ultimate achievement” in second language learning, Bialystok and Hakuta (1999) argue that “it does not necessarily follow that age is a causal factor in that relation” (p. 162). In

fact, there is ample evidence in the SLA literature that learners at virtually any age can learn a second language, albeit with varying levels of success, or “ultimate attainment.” The U.S. State Department’s Foreign Service Institute (FSI), for example, routinely trains adult Foreign Service personnel to “carry out complex, professional tasks” (Jackson & Kaplan, 2000, p. 1) in more than 70 foreign languages (<http://www.state.gov/m/fsi/>). (According to Jackson and Kaplan, the average age of FSI language students in 2000 was 41.) Marinova-Todd, Marshall, and Snow (2000) concluded from their review of critical period research that “age differences reflect differences in the situation of learning rather than in capacity to learn” (p. 9). (Note, however, Hyltenstam and Abrahamsson’s (2001) strong rebuttal to Marinova-Todd et al. on other points.) As Bialystok and Hakuta, among others, have pointed out, younger and older learners do not bring to the second language learning experience the same cognitive, linguistic, and social resources. Foreign Service officers, for example are highly motivated, highly educated, and, in many cases, already bilingual or multilingual before beginning training at FSI. In addition, Foreign Service officers are tested only in speaking, listening, and reading. Further still, unlike Generation 1.5 L2 English learners/speakers in an academic setting, Foreign Service officers are not required to learn, and be tested on, new content in the language being learned. This is often the case as well in studies focusing on older language learners who reportedly achieve high levels of oral L2 proficiency. For example, all of the participants in the DeKeyser et al. (2010) study of L1 Russian learners of L2 English or L2 Hebrew were over 18 years old, and most “had college degrees and white-collar jobs” (p. 420).

***The longer is better argument.*** Given the five to ten years it takes to learn a second language (Carhill, Suárez-Orozco, & Páez, 2008; Collier, 1989; Hakuta, 2011; Thomas & Collier, 2001), length of residence may, at first glance, appear to be of greater relevance in Generation 1.5 research than age of onset. Based on the presumed beneficial effect of long-term, repeated exposure to linguistic, cultural, and social stimuli, TESOL issued a position statement in 2010 urging secondary-school students, educators, and financial aid providers to “understand the need to be flexible with respect to the amount of time and financial support allotted for language study” in order to prepare L2 English learners “to participate successfully at the postsecondary levels” (p. 1). While length of residence might intuitively be viewed as a proxy for maturation and/or L2 linguistic and cultural experience, in fact it is often ignored in studies of age effect (Stevens, 2006) or, as in the case of a number of post-secondary correlational and regression-analysis studies, turns out to be a minor contributor to measures of ultimate L2 attainment, “provided that length of residence is more than five years,” (DeKeyser et al., 2010, p. 416; Hyltenstam & Abrahamsson, 2003; Singleton & Ryan, 2004).

Midway through a four-year, longitudinal study of 265 L2 English speakers admitted to a Canadian university based on the number of years they had studied in an English-medium high school in an English speaking country, Fox (2005) found “no significant or meaningful difference in the performance of groups admitted on the basis of 3, 4, or 5 years in English-medium school” (p. 85). (Fox also noted that these students “underperformed” in comparison to other groups, including L2 English speakers who elected to be admitted on the basis of test scores on standardized language proficiency

tests and, therefore, be eligible for language support from the university.) Boshier and Rowekamp (1992, 1998) reported significant negative correlations between years of schooling/length of residency in the United States and academic performance in an open-admissions college at the University of Minnesota. In the abstracts to both reports of this study, the authors noted further that “the most important predictor of GPA was number of years of schooling completed in the student’s native country” (1998, p. 23; 1993, ERIC Document Resume). In a study focused on the influence of interrupted schooling on second-language learning, Fox, Kitsantas, and Flowers (2008) found a positive correlation between perceived L1 self-efficacy and measures of L2 English oral and writing proficiency in a class of 29 high-risk Hispanic high school students.

As explained in some detail by Stevens (2006), one reason length of residence is often ignored, or may yield spurious results, in studies on age in second language acquisition is the linear relationship among length of residence, age at onset, and age at testing, especially in studies of college-age L2 English learners/speakers. Stevens refers to this as the “‘age-length-onset’ problem” (p. 672). Knowing any two of the variables (e.g., age at testing and length of residence), one may easily deduce the third (e.g., age at onset). Stevens goes on to explain that

If there are theoretical reasons to believe that all three variables have unique influences on the dependent variable, then the estimates of the two slopes [of a regression formula] incorporate the third in a way that cannot be directly disentangled. Thus, the estimated effects of the independent variables explicitly considered in the analysis might be biased. (p. 673)

Stevens describes two approaches for dealing with the “age-length-onset” problem: “statistical techniques that lift the linear dependence linking the three variables” (p. 684) and “gathering more data” (p. 685).

One example of a large-scale research project in which an effort was made to separate the effects of age on arrival and length of residence is Cummins’ (1981a) reanalysis of a 1969 study of 1,210 fifth, seventh, and ninth-grade L2 English learners in the Toronto public school system. In this study, the variable of interest was age of onset. When length of residence was controlled, “older students showed a clear superiority compared to younger students” (p. 132). Carhill et al. (2008) and Hakuta (2011) reported positive correlations between length of residence and measures of language proficiency. While these two studies appear to support a “longer-is-better” argument, neither specifically addressed the so-called “age-length-onset” problem. How their results should be interpreted is further complicated by the fact that the studies focused on different age groups (elementary versus middle school/high school) and used different measures of L2 proficiency.

**The impact of interrupted L1 schooling.** The opportunity cost of spending more time in the L2 environment is the forfeited gain associated with sustained cognitive development in one’s mother tongue. Virtually all Generation 1.5 L2 learners/speakers experience some level of interruption in cognitive development by virtue of the discontinuity associated with beginning, or continuing, formal schooling in a language other than the home language. The fallout from interrupted schooling weighs particularly heavily on refugees from political chaos, war, and natural disasters, but even in more

benign circumstances the challenge to younger learners of taking on a second language when, in fact, their first language is still in development entails some level of rechanneling cognitive effort. A study commissioned by the U.S. Department of Education (Zehler et al., 2003) “estimated that 10.6 percent of LEP [Limited English Proficient] students in middle schools and high schools had missed more than two years of schooling since age 6” (p. 21). The study reported further that the majority of LEP students two or more years “older than age/grade norms were in grades 9-12” (p. 21).

Treatments of first-language development as a foundation for second-language development tend to fall into one of two categories: studies in which first-language development is largely intact (e.g., Cummins, 1981b; Padilla & Gonzalez, 2001), and studies in which first-language development is fragmented or inchoative (e.g., Blanton 2005; Boshier & Rowekamp, 1992, 1998). Both approaches are grounded in Cummins’ (1979, 1991) Linguistic Interdependence Hypothesis, which posits that languages in the bilingual brain are served by a common underlying proficiency and that, beyond some threshold level of development, L1 is available to support the development of L2.

A few studies have looked at the L1/L2 relationship from the opposite perspective; that is, the influence of L2 on L1 development. Singleton & Ryan (2004, p. 125), for example, argued that “acquiring an L2 in childhood may impinge significantly on L1 development,” especially in so-called “subtractive” schooling/language-learning settings in which efforts are made to suppress the L1. In such circumstances, students may wind up with “a weaker grasp of either language than monolingual children” (Jakobovits, as cited in Singleton & Ryan, 2004, p. 125). Citing research by Jia and



Aaronson, Singleton (2001) states that, “whereas immigrants arriving at ages older than 10 tend to maintain their L1, immigrants arriving before 10 seem to switch their dominant language from the home language to the language of the host country” (p. 83). Drawing on research originally attributed to Clement, Leki (2007) likewise noted that “members of linguistic minority communities identify either with the first or the second language community but rarely with both” (p. 171).

Exemplary of studies supporting the hypothesized benefits of an intact L1 is Padilla and Gonzalez’ (2001) secondary analysis of grade-point average and a variety of demographic variables for a subsample of 2,167 California high school students who self-identified as Mexican or Mexican American. While the original data set comprised responses to more than 300 survey items (collected from 7,140 students), Padilla and Gonzalez focused on national heritage (immigrant versus U.S.-born Mexican heritage), age at immigration, schooling outside of the United States, and “length of bilingual and/or ESL instruction” (p. 730). The major finding from this study was that “regardless of place of birth . . . students who received some schooling in Mexico reported higher grades than students with no schooling in Mexico” (p. 727). Padilla and Gonzalez also reported evidence of a positive effect for ESL/bilingual education support provided to students in the U.S. educational context.

While interrupted schooling has not been a focus in quantitative studies of post-secondary Generation 1.5 English L2 learners/speakers, the topic is often broached, at least implicitly, in the much larger body of qualitative studies concerned with how these L2 learners/speakers cope with multiple languages and cultures over a lifetime and at

various points in the lifecycle. Frequently cited works in this genre with either explicit or implied foci on interrupted schooling are Boshier (1998), Blanton (2005), and Leki (1999, 2007). Blanton, who has argued particularly forcefully for research and instructional programs that address the needs of L2 English learners/speakers handicapped by low literacy levels in their L1, studied two struggling Generation 1.5 students whom she described as “minimally literate” (p. 114) in their respective home languages and largely unsuccessful in their L2 college studies. She concluded that “We are largely in the dark about how these 1.5 students might achieve a degree of reading-writing proficiency in L2 that – due to circumstances beyond their control – they never achieved in L1” (p. 110).

Leki (2007) provided detailed profiles of four post-secondary L2 English speakers, two of whom were Generation 1.5 students: “Ben,” an L1 Chinese engineering major, and “Jan,” an L1 Polish business major whose case had been published previously in essay form (Leki, 1999). Ben and Jan emigrated near the end of their secondary-school studies and, in contrast to the students in Blanton (2005), were literate in their home languages. Nonetheless, each experienced transition-related stresses that significantly disrupted their studies and continued L2 development, illustrating, as Leki documented, how literacy experiences become “embedded in personal, social, and other academic experiences” (p. 3). Leki found that the primary stressor in Jan’s case was social isolation, whereas poor command of oral English was a major source of stress in the case of Ben. Both of these stressors are common themes in the Generation 1.5 SLA literature, especially in qualitative studies of middle-school, high school, and post-secondary L2 English learners/speakers.

In an exploratory follow up to Boshier and Rowekamp (1992, 1998) involving videotaped interviews, recall protocols, and analyses of writing samples and pausing behavior, Boshier (1998) reported on the approach to college composition of three Southeast Asian L2 English speakers enrolled in an “academic language bridge program for refugee/immigrant students” (p. 209) at the University of Minnesota. Selected from a larger sample of eight students, two of the study participants were Generation 1.5 students with, respectively, four and seven years of schooling in the United States. The third participant completed high school in her native country. While no overarching pattern emerged from this study, Boshier found evidence that the varied L1 educational backgrounds of her study participants were reflected in their “metacognitive awareness, their ability to integrate information from the reading into their writing, the amount of attention paid to different aspects of their writing, and the quantity and variety of problem-solving strategies employed” (p. 205).

**Implicit versus explicit learning.** In the introductory chapter of *Generation 1.5 Meets College Composition*, Harklau, Siegal, and Losey (1999) state that Generation 1.5 L2 English learners/speakers learn “most of their language intuitively through exposure rather than through explicit instruction” (p. 8). Mikesell (2007), expanding on an earlier, frequently cited description by Reid (1997), adds that Generation 1.5 L2 English learners/speakers “typically learn English through natural interaction and thus aurally, warranting their description as ‘ear learners.’ EFL/ESL writers, on the other hand, tend to be ‘eye learners’ or ‘analytical learners’ and access rules when writing in English” (p. 8). Such descriptions are reflective of a widely shared understanding of how Generation 1.5

L2 English learners/speakers approach second language learning that rests on rarely elaborated assumptions regarding two forms of learning (implicit and explicit) grounded in cognitive psychology.

The complementary constructs of implicit and explicit knowledge/learning have been of continuing interest in both cognitive and social approaches to SLA research since at least the early 1980s (see, for example, Bialystok, 1982; Krashen, 1982). There is, however, no consensus on what role, if any, intrinsic learning, “in the narrow sense of knowledge without awareness” (DeKeyser, 2003, p. 329), plays in second language acquisition. In addition, the implications of explicit learning for second language pedagogy have often been the focus of spirited debate. Efforts to capture more precisely the nature of these fundamentally different approaches to knowing have led some SLA researchers to reframe the issue by focusing instead on the following related construct pairs: incidental versus intentional learning, intuitive versus analytical learning, deductive versus inductive learning, and procedural versus declarative knowledge/memory. While these additional foci clarify some aspects of the presumed underlying phenomenon, they are not fully commensurate constructs; nonetheless, they can sometimes be combined (e.g., explicit-deductive versus explicit-inductive), as explained in DeKeyser’s (2003) overview of SLA research on implicit and explicit learning.

Perspectives of SLA scholars on implicit and explicit learning have been influenced heavily by the work of Stephen Krashen, whose research with younger second language learners draws a clear distinction between language acquisition and language learning. For Krashen, language learners acquire languages “naturally,” that is, with little

or no intentional effort; thus, comprehensible input is the *sine qua non* for language acquisition and the de facto foundation for natural/communicative approaches to second language instruction favored in the United States since the late 1980s. In its strong form, Krashen's (1977) Monitor Model (one of five Krashen hypotheses) minimizes the importance of explicit language instruction based on the argument that declarative knowledge of language serves the limited function (and at that only for older learners) of providing a means of monitoring one's language production. In contrast, Ellis (1993, 1994a; but see also Robinson's (1994) response to Ellis), saw explicit instruction as a means of facilitating gradual mastery of a second language for language learners at various stages of linguistic readiness.

Whether implicit learning as defined in cognitive psychology is involved in second language acquisition/learning, and if so to what extent, remains an issue in debate, in large measure because of the difficulty of operationalizing and measuring the construct. There appears, however, to be growing acceptance of some role for explicit instruction and for broader views of what might be construed as "implicit" learning as the term is understood in everyday use. In reviewing post turn-of-the-21st century research, DeKeyser (2003) concluded that "the evidence from laboratory experiments . . . is overwhelmingly in favor of explicit learning" (p. 324), with the caveat that supportive studies are mostly short-term studies.

Studies of incidental language learning, appearing with increasing frequency since the turn of the 21st century, provide growing evidence that second language learning can, and does, take place as a natural consequence or result of communicative acts in a wide

variety of settings. Examples include studies focused on second language learning via exposure to “films, comic books, and songs” (Milton, 2008, p. 227), “entertainment and mass media” (Sjöholm, 2004, p. 685), “subtitled foreign movie[s]” (Van Lommel, Laenen, & d’Ydewalle, 2006, p. 243), and “extensive reading” (Kweon & Kim, 2008, p. 191). (Vocabulary acquisition and other language learning related to literacy will be discussed further in the final section of this chapter.) Such forms of language learning are consistent with claims that Generation 1.5 L2 English learners/speakers are “ear learners” whose learning of English is more “intuitive” than analytical and whose knowledge of the language is more procedural than declarative (Holten, 2009; Reid, 1997; Roberge, 2009); however, whether, in fact, Generation 1.5 L2 English learners/speakers differ significantly on these dimensions of language learning from native English speakers or from English L2 speakers educated in an EFL environment apparently has not been submitted to rigorous empirical study.

**Cross-linguistic influence and interlanguage stabilization.** Acquisition of a second language is a complex developmental process, and the notion of an “end state” may be only a “normative fiction” (Larsen-Freeman, 2006, p. 195). Except for the special case of simultaneous bilinguals (who are immersed in two languages from birth, or from a very early age), second language learners approach their L2 via a prolonged interlanguage stage whose relation to the target language for most learners appears to be asymptotic. Persistent nonnative error patterns are common across all populations of second-language users but may be particularly frustrating for Generation 1.5 L2 English learners/speakers because of assumptions and expectations (largely uninformed) linked to

their prolonged exposure to English, often native/near native oral ability, and presumed assimilation into American lifestyles and values.

Deviations from the “norms” of monolingual, native speakers of a target language often appear to be rule-governed in some sense, yet tend to defy conscious control, even among highly motivated learners/speakers in seemingly optimal language learning settings. Manifest in both oral and written domains and affecting all language subsystems (phonology, morphology, syntax, lexicon, semantics, and pragmatics), their origin has been widely perceived to be a function more of the properties of languages and how they are processed in the brain than of exogenous factors. This is reflected in the fact that the bulk of research on cross-linguistic influence (taken here to include contrastive and error analyses as well as studies of language distance, language transfer, L1/L2 interaction, and language interference) is grounded in the disciplines of linguistics and psycholinguistics. At the same time, most SLA scholars now acknowledge that social factors are likely involved as well, a recognition that “all language acquisition takes place in a social matrix” (Odlin, 2003, p. 452).

A number of explanations have been advanced to account for the elusive nature of native-like fluency in a second language, but virtually all draw principally on three areas of SLA scholarship: the Critical Period Hypothesis, fossilization, and cross-linguistic influence. While research in these three areas evolved largely independently of each other, and two of the three (the Critical Period Hypothesis and fossilization) are viewed with skepticism by many SLA scholars, it is not difficult to envision some combination

of such factors interacting with each other, perhaps in conjunction with a constellation of still other factors known and yet to be identified.

As indicated earlier, SLA scholars have been reluctant to embrace the Critical Period Hypothesis as relevant to second language acquisition. Still, one might posit that ultimate fluency in a second language is influenced at least in part by maturational constraints associated with language learning in general. Early in the presumed biologically determined window of opportunity, language learning is not necessarily effortless, but, at the same time, happens with little or no conscious awareness. As the window closes, language learning requires increasingly higher levels of cognitive effort, but, as Ioup (2005) notes in a review of research on “Age in Second Language Development,” the process may be gradual and may involve not one, but multiple “critical periods” (p. 421) of varying length, affecting language subsystems differentially at various points in the lifecycle. One example is L2 pronunciation, an area in which younger (prepubertal) learners consistently have been shown to enjoy a long-term advantage.

While a hypothesized critical period or periods may have a positive influence on the trajectory of second language learning early in the process, factors that come into play later appear to have a stabilizing effect. The term “fossilization,” coined by Selinker (1972), has been used widely “to account for the observation that the vast majority of second language learners fail to achieve native-speaker target-language competence” (Han & Selinker, 2005, p. 456). Fossilization researchers typically describe the phenomenon as a cessation of language learning in which incorrect, nonnative features of



the learner's interlanguage become permanent, or, at best, highly resistant to change. Pica (2005) refers to them as "internalized versions of the L2 that are functionally adequate for communicative purposes, but developmentally incomplete in form and structure" (p. 273). Often retaining elements of the learner's L1, these nonnative features might also incorporate aberrant forms modeled by native (or other nonnative) speakers in the learner's social environment (Roberge, 2002), as might occur in a poor, multiethnic inner-city enclave or a linguistically isolated rural area. They may also involve multiple language subsystems. As in the case of the Critical Period Hypothesis, however, "design[ing] acceptable empirical studies and . . . interpret[ing] their results" has proven difficult (Fidler, 2006, p. 401). Furthermore, some critics object to use of the term "fossilization" to describe the persistence of interlanguage error patterns because of its pejorative connotation in common usage.

Research on the Critical Period Hypothesis and fossilization has so far been more successful in describing than explaining or predicting. Research on the construct of cross linguistic influence, however, rests on a much broader, albeit "highly diverse," base of empirical evidence, and although no "truly comprehensive theor[y]" of the phenomenon has emerged, there is virtually universal recognition that one's native language has a strong, enduring influence on the learning and use of a second language that "affects all linguistic subsystems" (Odlin, 2003, p. 437).

Language transfer may facilitate or interfere with second language learning depending in part on individual learner differences and in part on the distance (i.e., the similarities and differences) between the target language and any previously acquired or

learned language(s). (While a handful of studies have investigated cross-linguistic relationships among three or more languages in multilingual language learners, most research in this area has focused on L1 → L2 transfer in bilinguals.)

Positive transfer between L1 and L2 is more likely to occur when the two languages are highly similar (Odlin, 2003), particularly with respect to lexis, morphology, syntax, and orthography. Cognate vocabulary shared by academic English and Latin-based languages, for example, might facilitate the development of second language lexicon and morphology; however, similarity between two languages is not sufficient to guarantee positive transfer since “language-specific characteristics may interact with cognition in ways that make it more difficult for learners to notice differences between the native language and target languages” (Odlin, 2003, p. 457).

Negative transfer between L1 and L2 is presumed to be stronger across languages that are dissimilar, but, as indicated above, may also occur across even highly similar languages. Research into negative transfer began in the 1960s as contrastive analysis, which, in the behaviorist tradition, viewed language learning as a process of habit formation. Linguists of that era hoped that the cataloging of similarities and differences between language pairs would facilitate second language pedagogy. With the shift from a behaviorist to cognitivist paradigm, however, research into cross-linguistic transfer shifted first toward error analysis but more recently has focused more on cognition than on characteristics inherent in languages. In contrast to earlier studies, contemporary research on cross linguistic influence acknowledges that the process can operate in both

directions (i.e.,  $L1 \rightarrow L2$  and  $L1 \leftarrow L2$ ) and recognizes the important role of such exogenous factors as the language learning environment as well.

An illustrative example of post-contrastive-analysis research into cross-linguistic influence is a series of experiments by Kroll and Stewart (1994), some of which involved post-secondary L2 English bilingual subjects who were likely Generation 1.5 students. Building on earlier published research in which Kroll was the lead author, the 1994 experiments used a combination of timed word and picture naming, translation, and recall tasks to reveal the complex ways in which conceptual and lexical mapping occur in the bilingual brain. As hypothesized, study findings documented a processing advantage when going from L2 lexis to L1 lexis to L1 conceptual information. Direct access from L2 lexis to L1 conceptual information, however, imposes a heavier load on cognition, requiring increased processing time. Kroll and Stewart interpreted the results of their experiments as support for “the notion that it is the ease of accessing connections between L2 words and concepts that changes most dramatically as proficiency in L2 increases” (p. 167). In other words, as bilinguals become stronger in their L2, the need to translate lessens as “second language words directly access concepts” (Kroll & Stewart, 1994, p. 150).

Based on a substantial body of research from the sixties through the eighties, Kroll and Stewart (1994) noted that “words in each of a bilingual’s two languages are thought to be stored in separate lexical memory systems, whereas concepts are stored in an abstract memory system common to both languages” (p. 150). One dimension on which the hypothesized lexical memory systems differ is how they categorize referents in

the real world (Kroll & Stewart, 1994; Mueller Gathercole & Moawad, 2010). In an experimental study involving L1 Arabic/L2 English learners (aged 18 to 25) who had studied English in English-medium schools in Saudi Arabia, Mueller Gathercole and Moawad (2010) investigated variations in word boundaries (roughly, the range of meanings words may encompass) and organization of semantic representations across Arabic and English. Study findings supported the authors' central argument that a bilingual's two language systems "interact in complex ways" and highlighted the challenge to "late L2 learners" of restructuring conceptual mappings when taking on a second language with a "fully fledged L1 system" already in place (p. 404).

Supported by scholarship on cross linguistic influence, Generation 1.5 SLA scholars have called attention to the fact that learning a second language involves more than "overlying" an existing language (Roberge, 2009, p. 5) and to the difficulty of differentiating between "transfer from native language" and "developmental difficulties" in evaluating nonnative "rhetorical structures" in the language of postsecondary Generation 1.5 L2 English learners/speakers (Frodesen & Starna, 1999, p. 72.). Greater knowledge of the ways in which languages interact with each other and, in turn, influence other areas of cognition, might have profound implications for placement and instruction of Generation 1.5 students; however, there appears to have been little or no empirical research in this area focused narrowly on the postsecondary Generation 1.5 population.

### **Reading in a Second Language**

The critical role of reading in L2 literacy and language development is often acknowledged in post-secondary Generation 1.5 SLA research, but, as noted in Chapter

1, very few studies have focused specifically on reading as a variable of interest with respect to language and literacy development within this specific population. As a result, the question of whether Generation 1.5 L2 English speakers acquire or use L2 English reading fluency differently than native English speakers or L2 English speakers coming from an EFL setting (in which English may or may not have been the language of instruction) has largely gone unasked. Harklau (2001), whose pioneering work has heavily influenced Generation 1.5 SLA scholarship, noted that “although literacy has been cast as a crucial factor in entering students' college performance and ultimate retention or attrition, a number of gaps remain in existing research on the subject” (p. 39).

By definition Generation 1.5 L2 English learners/speakers share the common experience of having received some level of schooling in an English-dominant environment with English as the language of instruction. Because many also have near-native or native-sounding fluency in oral English, it is widely presumed that they enter college with roughly the same literacy skills (among them vocabulary and familiarity with English rhetorical conventions) and general knowledge as their monolingual, native English speaking peers. Generation 1.5 L2 English speakers, however, are a diverse population whose “L2 literacy learning commences at various ages and under diverse circumstances” (Koda, 2004, p. 6). Faced with the formidable literacy demands of post-secondary education, many find that, while their oral fluency is a valuable asset, it is not sufficient to guarantee success in processing the decontextualized, cognitively demanding texts that constitute the core around which higher education is constructed.

Generation 1.5 L2 English speakers enter college with a range of L1 and L2 competencies, but even those entering via ESL or developmental English programs are not true L2 literacy beginners. All have had some level of experience constructing meaning from English language texts, and many consider English the stronger of their two (or multiple) languages for reading and writing. Nonetheless, many struggle with the volume and variety of assigned readings at the post-secondary level. In an ethnographic study of four Generation 1.5 L2 English bilinguals as they transitioned from high school to college, Harklau (2001) noted “differing assumptions and values . . . about reading and writing in secondary and postsecondary institutions” (p. 34). Harklau’s students found adjusting to “lecture and note-taking conventions” (p. 46) and “finding ways to accomplish learning and literacy events outside the classroom” (p. 64) more salient than their language minority status. As high school students, they “tended to see themselves as more accountable for the act of reading itself than for understanding” (p. 56); as college students they were faced with the reality that accountability extends to understanding assigned readings.

Allison (2008), in a doctoral dissertation chaired by Harklau (above), likewise tracked three Generation 1.5 L2 English learners/speakers as they transitioned from high school to college and identified parallel issues. Study participants found that reading strategies that had served them well in high school had only limited utility at the post-secondary level. They felt that they had entered college with “inaccurate perceptions of the role of reading in college,” and lamented that such false perceptions had “also impeded opportunities for learning in high school that could have permitted them to

increase their competence in reading comprehension” (p. 87). Specific challenges cited by Allison’s study participants included the variety of reading strategies required for college reading, finding help for completing reading tasks, dealing with academic vocabulary, and a lack of relevant experience in “reviewing self-generated texts” (Allison, 2008, p. 94). Allison reported that the two participants who began their post-secondary education in community colleges fared better than the remaining student, who began her college career at a four-year university. According to Allison, the community colleges involved in the study were better positioned to provide language support for L2 English bilingual students.

While participants in both the Harklau (2001) and Allison (2008) studies began their post-secondary education with ESL support, many Generation 1.5 L2 bilinguals are placed directly in freshman-level English courses (usually without language support) or in developmental English courses designed for native English speakers whose language skills are considered inadequate to support study in core academic courses. Placement decisions putatively take into account an array of diagnostic assessments, including measures of reading comprehension, but typically are driven by writing assessments scores. This practice is a matter of concern for some educators involved with Generation 1.5 L2 English bilinguals, in part because of the issue of the reliability of high-stakes, locally devised and scored writing assessments, but also in part because of the possibilities it creates for placement mismatches by ignoring the contribution of reading to the literacy equation.

May (2007) studied the predictive strength of three linear models in which four subtests of the Accuplacer LOEP (Levels of English Proficiency) ESL placement battery (reading comprehension, language use, sentence meaning, and essay) were used singly and together to predict final course grades and teacher evaluations of placement in samples of Generation 1.5 students enrolled in EAP (English for Academic Purposes) courses at Valencia Community College. Across course content (reading, writing, speaking, and grammar) and for both dependent variables, the reading subtest used alone yielded the highest correlations. In May's institution, however, as in NOVA, Accuplacer reading scores are aggregated with scores from other components of the Accuplacer and, therefore, have minimal influence on placement decisions. At the same time, May acknowledged the generally poor track record of placement tests using "domain-generic" readings, in contrast to "domain-specific" readings, at predicting student success. (See Behrman and Street, 2005, for a discussion of the use of content-specific reading comprehension tests for college placement.)

**L1 reading is hard; L2 reading is harder still.** Bernhardt (2011) notes that "comprehension is far more layered in a second language than in a first" (p. 14). The literacy challenge confronting post-secondary Generation 1.5 L2 English bilinguals, especially those beginning their college career in ESL or developmental English courses, comprises two components: the complex nature of written language itself and the interaction between/among a bilingual's multiple languages and writing systems. With respect to the former, Halliday (1985) argues that the central difference between spoken and written language is density. "Relative to each other, written language is dense,



spoken language is sparse” (p. 62). Density entails a higher proportion of low-frequency lexical items than normally encountered in spoken language, more elaborate discourse rules and conventions, and the need for more specialized subject matter knowledge. Halliday’s notion of density encompasses what Bernhardt (2011) refers to as “reading in the upper registers” (p. 59) and corresponds in part to the decontextualized, cognitively demanding form of language represented at one extreme of the familiar four-quadrant matrix used by Cummins (1981b) to illustrate the two dimensions of conversational and academic language.

Even if the ways in which they approximate spoken language vary greatly, written languages are alike in that they involve elaborate, abstract schemes for encoding and structuring speech, beginning with the arbitrary orthographic systems used to construct text (e.g., words, syllables, graphic representations, or some combination thereof). In addition to describing things, actions, ideas, emotions, etc., written languages are tasked also with at least partially representing paralinguistic, prosodic, and pragmatic features of speech, such as pauses, emphasis, and intent. Knowledge of a written language affords opportunities for communicating in ways that transcend the capabilities of oral language and yields insights into the workings of language itself (i.e., metalinguistic knowledge) not accessible to nonreaders; however, mastering the written code of a language requires a high level of conscious, instructed effort (Grabe, 2009), whether the language involved is one’s first or second. As Smith (1994) argues, “writing is a form of language and not . . . simply spoken language written down” (p. 11).

Just as written language differs from spoken language in fundamental ways (Grabe, 2009; Halliday, 1985; Smith, 1994), so, too, reading in a second language differs from reading, or learning to read, in one's first language (Bernhardt, 2003; Grabe, 2009; Koda, 2004; Koda, 2007). Reiterating a point made in the first of two books on second language reading, Bernhardt (2011) states that the complexity of reading in a second language "lies in the processing of intricate, complicated and, often, obscure linguistic and cultural features accurately while trying to comprehend content and while remaining distant from it in order to assess the content's value and accuracy" (p. 19).

As in other language domains, L2 reading interacts with, and is influenced by, one's knowledge of any previously learned languages. Drawing an analogy between second language reading and "operating in stereo," Bernhardt compares the two languages of a bilingual to two parallel channels: "a clear channel from first-language knowledge and a degraded channel from second-language knowledge . . . sometimes facilitating and sometimes distorting" (p. 6). Koda (2007) argues that "dual-language involvement is the defining characteristic of second language reading" (p. 28). As noted in the discussion of crosslinguistic influence earlier in this chapter, L1 knowledge, including a strong foundation in L1 literacy, can support the development of L2 literacy (Cummins, 1979); however, L1/L2 interaction may also interfere with L2 literacy development, particularly when the linguistic and cultural gap between L1 and L2 is great. As Koda (2004) states, "L1 experience embeds habits of mind, instilling specific processing mechanisms, which frequently kick in during L2 reading" (p. 9). Grabe (2009)

notes in particular that it is the “L1 skills that are automatic that are likely to lead to interference with L2 reading” (p. 150; see also, Wu & Thierry, 2010).

The importance of background/prior knowledge in the development of both L1 and L2 literacy has been affirmed repeatedly through decades of study emanating from both cognitive and social approaches to SLA and literacy research (Grabe, 2009; Koda, 2007; Verhoven, 2011). Koda (2004) argues that “what readers know essentially determines how much information can be extracted from the text” (p. 188). In the context of second language literacy, background knowledge includes, but is not limited to, general and “specialist” factual knowledge acquired through life experience and formal schooling; knowledge of the lore of one’s native and adopted cultures; and knowledge of text genres and discourse practices. In essence, background knowledge is the lens through which input from the world beyond self is filtered and interpreted; however, significant gaps remain in our understanding of how we construct, store, and access mental representations of the perceived world. One line of research that addresses this gap is schema theory, described as the study of “mental frameworks that emerge from prior experience” (Hedgcock & Ferris, 2009, p. 26) or “related sets of knowledge linked together in an established frame” (Grabe, 2009, p. 77). Schema theory was widely embraced by reading researchers in the 1980s and 1990s; however, more recent, cognitively oriented research eschews the structural stability implied by schema theory (Grabe, 2009) and stresses instead the complex interactions between background knowledge and a host of other internal and external factors.

In comparison to traditional international (visa) students and L2 English learners/speakers who enter the U.S. post-secondary educational system from an EFL setting, Generation 1.5 L2 English learners/speakers are seemingly advantaged with respect to the background knowledge needed to support L2 reading in the upper registers. The presumed advantage, however, is mitigated by such factors as length of residence, age on arrival, integrity of K-12 education, L1 literacy foundation, and L2 language proficiency. As Grabe (2009) notes, “there is no straightforward way to predict the impact of background knowledge on comprehension performance” (p. 74) and “little agreement on the best ways [to measure it]” (p. 75).

**The nexus of variables linked to L2 reading proficiency.** One explanation of how background knowledge works in conjunction with L1 literacy knowledge and L2 grammatical knowledge in the L2 reading process is provided by Bernhardt’s “compensatory model” of second language reading, which posits that “*more than dependent . . .* [these factors] are inextricably intertwined because they are used by readers simultaneously in a compensatory fashion” (Bernhardt, 2011, p. 63, emphasis in original). The compensatory model posits that second language readers rely on “an array of knowledge sources” (Bernhardt, 2011, p. 20) that “influence and assist each other during comprehension” (Bernhardt, 2011, p. xi). As first articulated by Stanovich (1980, as cited in Bernhardt, 2011), knowledge sources available to support L2 reading include such things as “orthographic knowledge, lexical knowledge, syntactic knowledge, [and] semantic knowledge” (Bernhardt, 2011, p. 26).

Based on a meta-analysis of studies focused specifically on the contributions of L1 literacy knowledge and L2 grammatical knowledge to the L2 reading process, Bernhardt (1991, 2011) determined that together these two factors accounted for half of the variance in predictions of L2 reading proficiency. The remaining, or unexplained, half “implicates the interaction of individual reader variables with the universe of texts and topics” (Bernhardt, 2011, p. 35). Examples of reader variables falling under Bernhardt’s category of “other” include content and domain background knowledge, use of comprehension strategies, motivation, and interest.

In addition to providing a modern framework for the study of L2 reading, including the study reported here, Bernhardt’s compensatory model provides a context for understanding a long-standing debate in L2 reading research regarding the relative contributions of L1 literacy and L2 language knowledge to L2 reading comprehension. As noted several times in this chapter and earlier in Chapter 1, a strong foundation in L1 literacy is believed to facilitate the development of L2 literacy; however, the nature of this relationship is more complex than at first appears.

Although not the first to study the L1/L2 literacy link, Cummins (1979, 1991) has contributed heavily to scholarship in this area through elaboration over several decades of his Developmental Interdependence Hypothesis (also referred to variously as the Common Underlying Proficiency Hypothesis and the Linguistic Interdependence Hypothesis) and its more controversial Threshold Hypothesis corollary. As summarized by Grabe (2009), “this theory states that academic literacy skills, once developed well in the first language (exceeding an L1 threshold proficiency), will automatically be

available for L2 academic purposes” (p. 141). As scholarship focused on the relationship between L1 and L2 literacy evolved, however, attention shifted from the hypothesized L1 literacy threshold to a hypothesized L2 language threshold, as set forth in Alderson’s (1984, 2000) Language Threshold Hypothesis (an extension of Clarke’s (1980) Short-Circuit Hypothesis). Alderson (2000) argued that “second-language knowledge is more important than first-language reading abilities, and that [an L2] linguistic threshold exists which must be crossed before first-language reading ability can transfer to second-language reading contexts” (p. 39). In other words, a reader’s L1 reading competency is not available to support L2 reading until the reader has sufficient command of the second language to comprehend L2 texts.

Cummins (1976, 2000), whose research focuses largely on K-12 second language learners, concedes two “thresholds” may be involved in the L1 and L2 literacy relationship; he is skeptical, however, of regression analyses purporting to demonstrate the primacy of L2 language proficiency, arguing that “it is essentially trivial to discover that L2 proficiency is a better predictor of L2 reading than is L1 reading when the measures of ‘L2 proficiency’ and ‘L2 reading’ are indices of the same underlying construct” (p. 198).

While the underlying-construct argument may hold for emerging L2 readers, it may be less relevant in the case of post-secondary Generation 1.5 bilinguals, who supposedly have crossed the hypothesized L2 linguistic threshold. In the studies reviewed by Bernhardt (2011), L1 literacy accounted for up to 20 percent of the variance in L2 reading comprehension, and L2 language knowledge accounted for 30 percent;

however, Bernhardt contends that these and other variables linked to L2 reading comprehension morph “against the context of different languages and orthographies and ages” (p. 35), as illustrated in Figure 1, reproduced from Bernhardt (2011, p. 38).

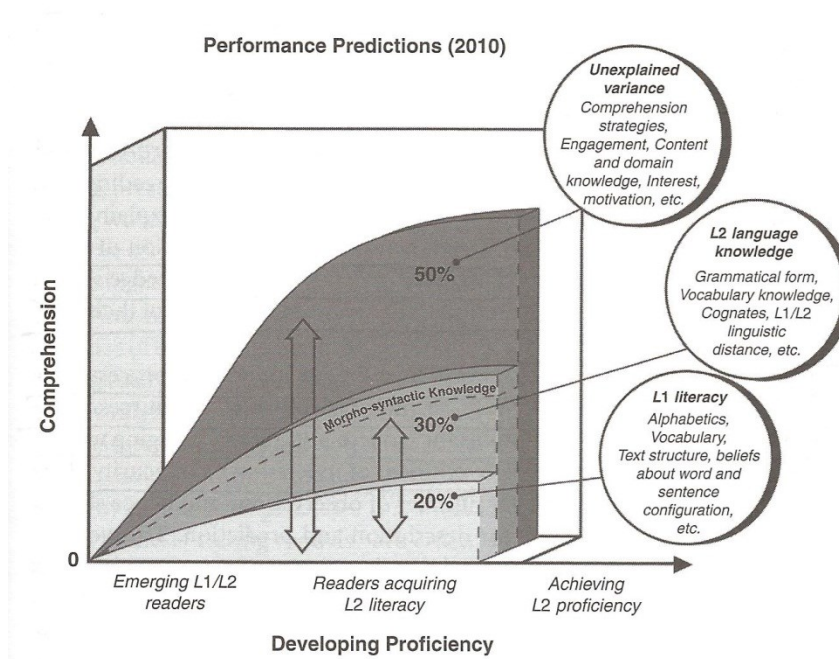


Figure 1. A compensatory model of second-language reading (revised). Reproduced from *Understanding Advanced Second-Language Reading* by Elizabeth B. Bernhardt, p. 38. Copyright 2011 by Taylor and Francis.

Highlighting the interplay of language distance and L1/L2 literacy experience, Jiang (2011) looked at both L1 and L2 reading comprehension scores in a sample of 246 L1 Chinese/L2 English undergraduate students in Shanghai who had studied English as a Foreign Language for an average of more than eight years. Jiang reported that L1 literacy

was not a significant predictor of L2 reading comprehension measured by scores from a TOFEL reading test and only a weak predictor when an instructor-prepared reading passage was used as the measurement instrument. Jiang attributed the tenuous link between L1 and L2 literacy in part to differing literacy traditions reflected in the readings used to measure reading comprehension in Chinese and English. More to the point, she noted the possibility “that the strong difference in orthographic and lexical language knowledge interfered with (or had no positive impact on) reading English” (p. 187).

**Extending L2 reading research findings to Generation 1.5.** Although few studies in the post-secondary Generation 1.5 SLA literature focus on reading per se, the wider field of scholarship in second language reading provides a relevant research-based foundation on which to build and suggests a range of variables meriting further study within the framework of the Generation 1.5 metaphor and Bernhardt’s compensatory model of reading. High on the crossover list of potentially fruitful research topics are L2 language knowledge, L1 literacy experience, background knowledge, and comprehension strategies. Features of L1 literacy experience, background knowledge, and L2 language knowledge implicated in L2 reading comprehension were discussed in the previous section. The remainder of this chapter will highlight the dominant influence of vocabulary as a component of L2 language knowledge and the role of reading strategies.

***The centrality of vocabulary.*** “In its most concrete, visible, and simple form, language knowledge consists of morphology, syntax, and vocabulary” (Bernhardt, 2011, p. 72). Of the three, however, vocabulary appears to be first among “equals.” Koda (2004) notes the traditional view of vocabulary as the “dominant enabling factor”



identified in L1 reading research, adding that “vocabulary knowledge correlates more highly with reading comprehension than other factors, including morphosyntactic knowledge” (p. 49). Grabe (2009) states that “word recognition is now widely accepted by researchers as one of the most important processes contributing to reading comprehension” (p. 22), while Hedgcock and Ferris (2009) characterize word knowledge as “crucial for reading” (p. 83). In the regression studies reviewed by Bernhardt, the 30 percent of variance explained by language knowledge (represented by the middle band in Figure 1) “seemed to be principally vocabulary” (Bernhardt, 2011, p. 33, citing Brisbois).

Estimates vary with respect to how large a lexicon a reader must have in order to be fluent in academic English, but the number of words needed to “perform like a native speaker” is clearly in the thousands (Milton, 2009, p. 2). Koda (2004) concludes from published studies of college ESL learners that “for acceptable comprehension in unassisted reading, the majority of text words must be known” (p. 58). In the studies cited by Koda, “majority” was taken to mean as high as 98 percent of “text-word coverage” (p. 58). Milton (2009) states that “for full understanding of a text, almost all the words, probably 95% or more, will need to be known” (p. 51).

Through the use of corpus analyses, Coxhead (1998, 2000), Davies and Gardner (2012), Nation (1990), and others have compiled lists of words that occur with high frequency in general and academic English usage. Milton (2009) states that as a “rule of thumb” knowing the most frequent 2000 English words “will enable the [L2] learner to recognize about 80% of any normal text” (p. 47); however, this is usually not enough for even a surface understanding of the texts assigned to first-year college students. In a case

study of the academic literacies experiences of three Generation 1.5 L2 English students in their first year of college, Crosby (2007) explored how the “situatedness” of assigned readings often constitutes a barrier to comprehension, even for students who have the requisite vocabulary. One study participant related to Crosby her frustration trying to understand a text that “just [didn’t] make sense” even though the student claimed to have understood “every single word” (p. 102). Similar reactions were reported by participants in Allison’s (2008) case study of first-year Generation 1.5 college students summarized earlier in this chapter.

Vocabulary knowledge is typically assessed on one or both of two dimensions: breadth and depth (Milton, 2009). In an overview of what it means to know a word, Grabe (2009) identifies nine components of word knowledge (among them, meanings, specific uses, and register) and highlights the incremental nature of vocabulary growth, stressing that “much of our word knowledge develops over time through multiple encounters in multiple contexts” (p. 267). The implicit learning of vocabulary through extensive reading is a recurring theme in both L1 and L2 reading research literature (Day & Bamford, 1998; Grabe, 2009; Hedgcock & Ferris, 2009; Koda, 2004). The literature likewise reflects a consensus on the importance of rapid, automatic word recognition, which frees up cognitive resources “to concentrate on combining the information obtained with background knowledge to construct a meaning for the text” (Eskey, 2005, p. 568). Koda (2004) concludes that “lower-level processing competence plays a major role in L2 reading comprehension well after a high-level of proficiency has been achieved” (p. 198).

Supporting a theme stated or implied several times in this and the previous chapter, Grabe (2009) notes that “patterns of decoding and comprehension relationships are more complex for L2 readers because they seldom achieve word-recognition fluency levels evident among good L1 readers” (p. 98). Conventional wisdom holds that Generation 1.5 L2 English bilinguals are no exception, despite the supposed opportunity to develop the implicit, native-like fluency and automaticity expected of proficient readers at the post-secondary level through the “multiple encounters in multiple contexts” mentioned by Grabe (2009, p. 67). Once again, however, there is little empirical research focused on the Generation 1.5 population to document how big the gap between them and native English speakers may be, or what might be done to narrow it.

***Reading comprehension strategies.*** Drawing on their own empirical studies and other published research dating from the 1970s on both L1 and L2 reading strategies, Sheorey & Mokhtari (2008b) state that “the current view of reading strongly favors metacognitive awareness as an essential component [in reading comprehension] and includes an awareness not only of whether the text is being understood, but also a conscious deployment of strategies to enhance comprehension” (p. 132). In contrast to processing skills, defined by Afflerbach, Pearson, and Paris (2008) as “automatic actions” that operate largely “without the reader’s awareness of the components or controls involved” (p. 15), a reading strategy may be defined as “any overt purposeful effort or action used on the part of the reader to make sense of the material with which he or she interacts” (Pressley, as cited in Mokhtari, 2008, p. 150). Reading strategies are “*deliberate, goal-directed attempts to control and modify* the reader’s efforts to decode

text, understand words, and construct meanings out of text” (Afflerbach, Pearson, & Paris, 2008, p. 15, emphasis in original). Stressing the intentional, deliberate nature of reading strategies, Sheorey & Mokhtari (2008a) refer to them as “mental plans, techniques, and actions that readers undertake while reading academic or school-related materials” (p. 6).

Research on reading strategies is an extension of research on metacognitive awareness, which, as presented by contributors to Mokhtari and Sheorey’s (2008a) edited volume on *Reading Strategies of First- and Second-Language Learners*, comprises both metacognitive knowledge and metacognitive control. As interpreted by Koda (2004, with attribution to Flavell), metacognitive knowledge is “the ability to reflect on one’s own cognition,” while metacognitive control has to do with “the capacity to regulate one’s own cognitive activities” (p. 212). Together, metacognitive knowledge and metacognitive control function as “a general system that supports comprehension” (Grabe, 2009, p. 226). Metacognition subsumes the related construct of metalinguistics, a “subset of metacognition that deals specifically with linguistic knowledge” (Grabe, 2009, p. 224); however, in the literature on second language acquisition and reading, the terms *metacognitive* awareness and *metalinguistic* awareness often are used interchangeably.

In a loose sense, the developmental link from metacognitive awareness to strategies to skills is hierarchical, but the lines that define them are not immutable (Afflerbach, Pearson, & Paris, 2008; Grabe, 2009). Through practice, successful strategies may become skills, just as skills may at times evoke conscious, purposeful thought (Sheorey & Mokhtari, 2008a). In the literature on metacognition and reading

strategies, it is taken as axiomatic that the development of metacognitive awareness precedes the development of reading strategies; however, as Baker (2008) underscores, “metacognitive knowledge is necessary but not sufficient for metacognitive control” (p. 31), adding that “comprehension monitoring involves not only skill, but also will” (p. 35). In a somewhat more expansive iteration of the latter point, Mokhtari, Reichard, and Sheorey (2008) stress that “the process of reading is greatly influenced by the beliefs, attitudes, and values that readers possess” (p. 99).

Focusing on metalinguistic awareness as a proxy for metacognitive awareness, Grabe (2009) argues that “more aware learners” have greater access to “a range of skills that are important for reading” (p. 225). Among these are heightened sensitivity to “phonological knowledge and its relationship to orthographic knowledge,” properties of definitions and morphological word parts, and the use of syntactic information and context for acquiring “new words or additional word meanings, as well as for disambiguating word meanings and concepts in a text” (p. 225-226). Koda (2004) argues further that “learning to read is fundamentally metalinguistic, involving the recognition of functionally important elements of spoken language and their relation to the writing system, as well as the skills to map between the two” (p. 72). As with metacognitive growth, which proceeds “throughout childhood, adolescence, and even into adulthood” (Baker 2008, p. 31), “metalinguistic awareness develops gradually over many years, and for many readers will never be fully realized” (Grabe, 2009, p. 225).

The evolution of research on the contribution of reading strategies to reading comprehension is summarized in Wilkinson and Son (2011) and in the report of the

National Reading Panel (2000), which highlighted eight strategies (among them, summarizing, activating prior knowledge, and inferencing) identified as “providing the strongest support for reading comprehension” (Grabe, 2009, p. 209). While growing evidence supports the consensus view that reading strategies matter, the nature and magnitude of their influence is less clear, in part because of the difficulty of operationalizing and measuring metacognition. As Baker (2008) argues, “one cannot simply assert that an individual ‘has’ or ‘does not have’ metacognition. Metacognition is not a unitary construct, either across domains or within domains, nor is the deployment of a metacognitive strategy ‘all or none’” (p. 32).

As is true in other areas of reading research, more is known about the use of reading strategies by monolingual readers than by readers reading in a second language. No reading-strategies studies focused specifically on Generation 1.5 L2 English learners/speakers were found in the literature search conducted for this study. Grabe (2009) states that “in L2 contexts, there is relatively little research on strategy instruction specifically for reading” (p. 239). Bernhardt (2011) notes further that, with respect to the question of whether more or less classroom time should be devoted to strategy training, “the present data base presents us with more contradictions than assistance” (p. 49).

Although not robust, the research base on L2 reading strategies points to several potentially significant differences between monolingual and bilingual/multilingual readers. Grabe (2009) for example, calls attention to the inclusion in L2 reading research of topics not addressed in L1 reading research, such as “the effect of mental translation, the impact of L1 transfer, and the potential metacognitive advantage of the L2 learner”

(p. 208). Mokhtari (2008) observes that “the supply of strategies used by proficient bilingual and biliterate readers often includes supporting strategies (e.g., code mixing, translation, and use of cognates) that are unique and particularly useful to reading in a second or a third language” (p. 143). Poole and Mokhtari (2008) have suggested that second-language readers may also differ from monolingual readers with respect to their reliance on non-print resources, such as online and hand-held electronic dictionaries and thesauri, to support reading comprehension. Finally, several researchers have noted the potential transfer of L1 reading strategies to L2 reading contexts. (See, for example, Koda, 2004.) According to Sheorey and Mokhtari (2008a), the available evidence indicates that “once readers become aware of a set of strategies and their usefulness in one language, they are likely to use these strategies when comprehending texts in another language” (p. 9). Consistent with Bernhardt’s (2011) compensatory model of second language reading, Sheorey and Mokhtari (2008b) note evidence provided by Carrell, Pharis, and Liberto that “proficient L2 readers can compensate for a lack of native-like English proficiency by increasing awareness and use of reading strategies to enhance comprehension” (p. 139).

Addressing the needs of both science and pedagogy, Mokhtari and Reichard (2002) and Mokhtari and Sheorey (2002) developed a pair of self-report instruments designed to identify perceived use of reading strategies by adolescent and adult L1 and L2 readers. Described in Mokhtari, Sheorey, and Reichard (2008), the Metacognitive Awareness of Reading Strategies Inventory (MARSII) measures “awareness and use of reading strategies” (p. 47) by native English speakers while a modified version of the

inventory, called the Survey of Reading Strategies (SORS), performs a parallel function for ESL students. The authors claim reasonable levels of validity and reliability for both instruments but also note the risks inherent in measures that rely on self-reports. In one study in the series, Sheorey and Mokhtari (2008b) found significant differences in scores for 152 ESL students and 150 native-English speaking students at two Midwestern universities in the United States. The major difference was the greater reliance by ESL students on eight strategies grouped together under the rubric of “support reading strategies” (p. 138) (e.g., “using a dictionary, taking notes, underlining, or highlighting textual information” (Mokhtari, Sheorey, & Reichard, 2008, p. 51)). The Survey of Reading Strategies (SORS) is included in a selection of measurements instruments used in the present study.

## **Summary**

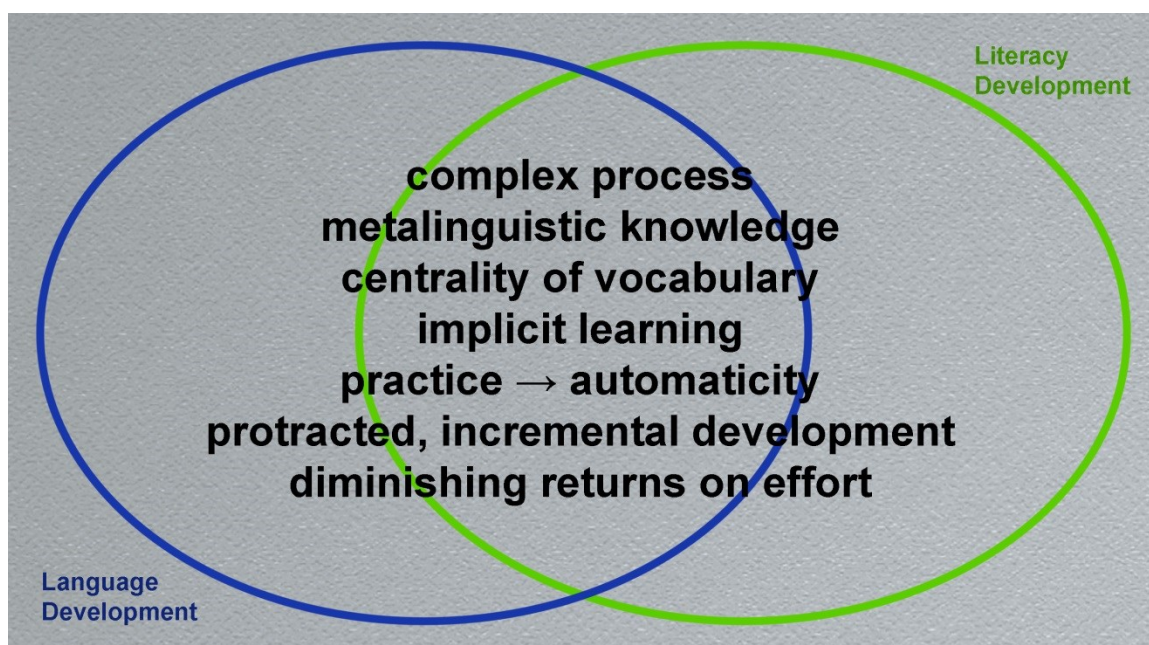
The Generation 1.5 model in post-secondary second-language acquisition research traces its origins to studies in the field of immigration research dating from the late 1980s. The viability of the model rests upon the assumption that Generation 1.5 learners differ in observable, if not measurable, ways from native, monolingual English speakers and also from L2 English bilinguals whose K-12 education occurred in a setting in which English was learned as a foreign language. Much of what we know about the influence of the Generation 1.5 experience on second-language learning and literacy development, however, derives from small-scale, qualitative studies, often focused on composition. This chapter has sought to provide a context for investigating the Generation 1.5 model and establish a framework for the present study by situating the



body of existing Generation 1.5 SLA scholarship within the broader, more established research traditions of second-language acquisition and second-language reading.

Topics highlighted in this chapter included the diversity that characterizes the Generation 1.5 L2 English population; the influence on language learning and literacy development of extensively researched factors such as age, L1 schooling, implicit learning, and cross-language interaction; and the fungibility of resources available to L2 English bilinguals in constructing meaning from complex academic texts, highlighted in Bernhardt's (2011) compensatory model of second-language reading (revised).

An overarching theme that emerges from parallel studies across multiple disciplines in the research reviewed in this chapter is the commonality of a handful of defining features manifest in both advanced language learning and literacy development. These include the complexity of both processes, the critical role of metalinguistic knowledge, the centrality of vocabulary, the largely unseen influence of implicit learning, the link between practice and automaticity, and the protracted, incremental nature of language and literacy development, which proceed along uneven, recursive paths in which increasingly greater effort is required to produce continuing gains in proficiency. The overlapping roles played by these factors are represented graphically in Figure 2.



*Figure 2.* Shared dimensions of advanced language learning and literacy development

## **CHAPTER THREE**

As previewed in Chapters 1 and 2, this study used quantitative methods to investigate similarities and differences between students identified as Generation 1.5 L2 English learners/speakers and L2 English learners/speakers who received their K-12 education outside of the United States. Participants were enrolled in multiple sections of an intermediate ESL reading course offered on two campus of a large East Coast community college during the fall semester of 2012. Focusing on the challenges and opportunities for advanced language and literacy development associated with the reading of upper-register texts typically required of first-year college students, the study sought evidence, or counter-evidence, of characteristics commonly attributed to the class of L2 learners/speakers defined as Generation 1.5 in published research derived mostly from small-scale, qualitative studies. An implied overarching question was whether the Generation 1.5 metaphor may serve a useful function in the placement and ongoing language support of post-secondary L2 English bilingual students. The study addressed the following research questions, repeated from Chapter 1:

1. What are the similarities and differences between Generation 1.5 L2 English speakers and their classmates in an ESL Level 4 reading class who received all or most of their K-12 schooling outside of the United States on demographic, cognitive, and linguistic variables believed to reflect or predict success in second-language reading?

2. What are the similarities and differences between Generation 1.5 L2 English speakers and their classmates in an ESL Level 4 reading class who received all or most of their K-12 schooling outside of the United States on measures of reading performance, perceived efficacy as second-language readers, and use of reading strategies?

3. What are the similarities and differences between Generation 1.5 L2 English speakers and their classmates in an ESL Level 4 reading class who received all or most of their K-12 schooling outside of the United States with respect to the self-reported reading they do for pleasure and other purposes not related to school or work?

### **Setting**

The study was conducted on two campuses (Manassas and Annandale) of Northern Virginia Community College (NOVA). Comprising six campuses located in three counties and one autonomous metropolitan jurisdiction, NOVA serves more than 75,000 students, making it the second-largest community college in the United States (<http://www.nvcc.edu/about-nova/index.html>). The college offers more than 160 degree and certificate programs through a combination of traditional, hybrid, and distance-learning formats.

Some 180 countries are represented within NOVA's international student population, which constitutes roughly 20 percent of total enrollment. According to Fall 2010 statistics reported by the college's Office of Institutional Research, Planning, and Assessment (Office of Institutional Research, 2011), nine countries with 300 or more students each accounted for nearly half (45 percent) of the international student population. Regions/countries most heavily represented were Central and South America

(El Salvador, Bolivia, and Peru), the Far East (Korea and Vietnam), Africa (Ethiopia and Ghana), and Central Asia (India and Pakistan). Following the terrorist attacks of 2001, international student enrollment declined by almost a third, bottoming out in 2006. Since 2006, foreign student enrollment has rebounded but still is about 13 percent below its Fall 2001 peak.

NOVA provides language support for L2 English speakers through a “credit” program referred to as College ESL and through a noncredit (continuing education) program branded as the American Culture and Language Institute (ACLI). The College ESL program (the locus of this study) is designed to help students build “academic literacy and critical thinking skills” (<http://www.nvcc.edu/future-students/esl/college/>). Paired reading and composition courses are provided at four levels (designated as levels two through five), and oral language courses are offered at the lower levels (levels two and three). Courses in the College ESL program are graded on a pass-fail basis; academic credits are awarded but do not count toward degree or certificate requirements.

Because NOVA is an open admissions college, applicants for admission are not required to submit scores on standardized tests such as the SAT nor evidence of having graduated from high school (though many do). Early in the application process, incoming students are given math and English placement tests. As explained in somewhat greater detail in Chapter 1, applicants identified as native English speakers during an initial screening process are given a state-developed diagnostic language assessment. (This assessment was piloted during the Fall 2012 semester as a replacement for the American College Testing Program’s Compass test and was fully adopted during the Spring 2013

semester.) Non-native speakers who demonstrate a high level of English language proficiency (characterized by Valdés (1992, p. 104) as “functional bilinguals”) may be given either the state-developed assessment or, as is the case with less-proficient non-native speakers, the College Board Accuplacer ESL battery (reading comprehension, language use, sentence meaning). Students scoring below a designated cutoff on the Accuplacer are also required to write a short essay, which is scored by a full-time ESL faculty member, who determines the appropriate placement level.

Some students enter the College ESL program via the noncredit program, but most are placed directly in the program based on Accuplacer scores. Students who do well on the Accuplacer may also be placed in the college’s developmental English program, designed for native English speakers, or even placed directly in mainstream freshman English. During the Fall 2010 semester, slightly under 6 percent (1,658) of the college’s 29,398.5 Full-Time Equivalent Student (FTES) enrollment was enrolled in ESL courses. Data from a 1999 report published by the college’s Office of Institutional Research, Planning, and Assessment indicated that approximately 8 percent of NOVA students were enrolled in developmental English at that time. Between 1995 and 1999, ESL enrollment grew by 26 percent; however, except for a slight dip beginning in 2003 and extending through 2005, ESL enrollment remained more or less flat during the decade from 2000 to 2010.

Absent information on where students graduated from high school, if at all, it is not possible to specify the number of Generation 1.5 students served by the college. During the Spring 2003 semester, the Office of Institutional Research, Planning, and

Assessment (Office of Institutional Research, 2004) conducted a survey of 435 “Generation 1.5” students enrolled in various ESL and developmental courses “to gain a better understanding of the educational and demographic backgrounds of immigrant students, as well as their experiences while enrolled at NVCC” (p. 1). Presumably students were identified as Generation 1.5 ex post facto on the basis of survey responses; however, the survey report did not break down responses by program (i.e., ESL versus developmental English) or provide detailed information on how the survey respondents were selected.

### **Sample Selection.**

Because they enter the College ESL program not as true beginners of English language learning but as emerging or relatively advanced bilinguals, the majority of both Generation 1.5 and other L2 English speakers requiring language support are initially placed at Level 4 or Level 5. The present study focused on the Level 4 reading course because Level 3 courses tend to have fewer Generation 1.5 students and Level 5 courses (particularly the Level 5 composition course) tend to have larger numbers of repeating students and reflect a wider range of language proficiencies. Based on personal observation, it was estimated that one-quarter to one-third of the students at Level 4 would meet the basic definition of Generation 1.5 – that is, speak a language other than English as their first language and have graduated from a U.S. high school.

Largely for logistical reasons, including time constraints and the inherent complexity of coordinating research across multiple campuses, a convenience sample was selected from two of the five campuses that offer College ESL courses: Annandale

(10,332 FTES enrollment) and Manassas (2,950 FTES enrollment), the largest and smallest campuses in the NOVA system according to 2010 enrollment data. With respect to age and gender, the student populations served by the two campuses were statistically equivalent; however, the demographic profiles of the two campuses differed with respect to racial/ethnic makeup, reflecting the differing communities they serve. Compared to the Annandale campus, Manassas had a higher proportion of white students (58.9 percent versus 43.3 percent) and African American students (11.3 percent versus 9.5 percent), and lower proportions of Asian (13 percent versus 24.5 percent) and Hispanic (11.5 percent versus 15.8 percent) students.

As a fraction of total enrollment (Fall 2010), the Annandale foreign student population was roughly twice that of Manassas (20.6 percent versus 10.9 percent). Korean students were the single largest national/ethnic group on both campuses. Other national/ethnic groups in the top seven on both campuses were Vietnamese, Peruvian, and Pakistani. Nationalities among the top seven on one campus but not the other were Indian and Salvadoran (Manassas) and Bolivian and Nepalese (Annandale).

As is true for all courses offered by Northern Virginia Community College, the curriculum for College ESL courses is prescribed by the college and published on the college website (<http://www.nvcc.edu/academic/coursecont.htm>); however, the campuses have wide discretion in determining the number and format of course offerings, selecting textbooks, and setting policies with respect to attendance, assessment, and syllabus content. At the time of the study, class size for developmental courses, including ESL, was capped at 25 students at Annandale and 23 students at Manassas. The ratio of full-



time to adjunct faculty was roughly 40/60 across all sections of ESL 42 offered by Annandale and Manassas during the data collection phase of the study.

Data for this study were collected in seven of the 12 sections of ESL 42 (Reading II) offered at Annandale and Manassas during the second half of the Fall 2012 semester. The study concept was initially presented to a college-wide convocation of the College ESL faculty, and a series of follow-up emails soliciting 60-minute blocks of instructional time for the administration of survey and assessment tools was sent to instructors of all 12 sections of ESL 42. Instructor support was actively endorsed by the relevant academic deans on both campuses; however, some instructors were reluctant to give up roughly one half of a class meeting for research purposes, and doubly so during a semester in which instructional time already had been lost due to weather-related school closings. Instructors of hybrid sections of ESL 42 were particularly protective of instructional time since hybrid courses meet only once per week.

Of the seven instructors who agreed to allow data collection in their sections, five were full-time faculty members and two were adjunct instructors. The seven sections included in the study were a mix of face-to-face and hybrid classes. One of the sections was an evening class, and one of the two hybrid sections was an intensive eight-week course. Start-up times and course duration varied by campus and course-delivery mode; however, instruction in all sections ended simultaneously in mid-December 2012.

The total number of students enrolled in all sections of ESL 42 at Annandale and Manassas was 233. Combined enrollment in the seven sections included in the study was 134 students – a little more than half (57.5%) of overall total enrollment. One student

withdrew from the course shortly before data collection began, one student elected not to participate in the study, and two students in one section were absent when data were collected in their class. Of the remaining 130 students, 22 self-identified as graduates of U.S. high schools (Generation 1.5), and 108 indicated they had attended or graduated from high school outside of the United States. Since all of the Generation 1.5 students were high school graduates, only high school graduates from the non-Generation 1.5 group were included in the sample, which reduced the number of non-Generation 1.5 participants from 108 to 104. Finally, students whose records indicated they were repeating the course for a second or third time were removed from the study group, resulting in a sample of 17 Generation 1.5 and 101 non-Generation 1.5 first-time enrollees in ESL 42, or a total of 118 participants. This amounted to 51 percent of all students enrolled in ESL 42 at Annandale and Manassas during the second half of the Fall 2012 semester.

### **Measurement Tools and Data Sources**

Informed by the literature reviewed in Chapter 2, the selection of variables examined and measurement instruments used in this study focused on quantifiable measures of language and literacy proficiency expected to correlate with membership in the Generation 1.5 population. While each data source was chosen to yield unique insights into the L2 language and literacy resources Generation 1.5 students bring to the reading classroom and the opportunities for further language and academic development afforded by reading, collectively the data sources were also expected to provide overlapping information in some areas and to complement each other in other areas,

providing a form of triangulation. It was reasoned that to the extent that findings from a variety of disparate measurement instruments and data sources converged, the claim would be strengthened that Generation 1.5 L2 English learners/speakers constitute a unique learning community with language support needs differing in at least some aspects from those of native English speakers whose academic language skills are still developing and those of L2 English learners/speakers whose knowledge of English was developed largely in EFL settings.

Measurement tools and data sources included student records, a personal data inventory, self-assessments of language proficiency, self-reports of reading strategies use, and diagnostic assessments of vocabulary knowledge and knowledge of English idioms. Each is described in the subsections that follow.

**Student records.** Student records were accessed to obtain or corroborate demographic data (sex, date of birth), history of previous ESL coursework at NOVA, and final course grade. Disaggregated scores from the Accuplacer Levels of English Proficiency (reading comprehension, language use, and sentence meaning) were also derived from student records and were found for all but one study participant. Measures of validity and reliability for the Accuplacer for large populations of language learners have been established and reported by The College Board. Since responses to individual Accuplacer test items are not recorded in student records, it was not possible to evaluate the internal reliability of the Accuplacer assessments for this particular study sample; however, test scores from the Accuplacer components were highly correlated with each

other and, as will be reported in Chapter 4, with scores from other measurement instruments used in the study.

**Personal data inventory.** The personal data inventory solicited additional demographic data plus information regarding history of L1 literacy instruction, history of L2 language and literacy instruction, self-assessed English reading proficiency, personal reading habits and preferences, and attitudes toward reading and toward the relevance and value of instruction provided in ESL 42. The inventory incorporated both original items and items adapted from survey questionnaires used in Connerty (2009), Crosby (2007), Hansen (2010), Hedgcock and Ferris (2009), and May (2007). Most inventory items were presented as multiple-choice or multiple-response questions, but a few solicited, or provided an opportunity for, brief narrative responses. Based on results from pilot testing of a single measurement instrument that required respondents to skip some questions not relevant to their particular situation, two forms of the personal inventory were developed: one for Generation 1.5 study participants (Appendix A) and another for non-Generation 1.5 participants (Appendix B). Except for items that solicited information unique either to the Generation 1.5 experience or the English as a Foreign Language (EFL) experience, the two inventory forms, including the ordering and numbering of questions, were otherwise identical.

**Diagnostic assessments of vocabulary and English idioms.** The Sentence Meaning component of the Accuplacer Levels of English Proficiency assesses knowledge of words presented in context at the sentence level. Data from this assessment were supplemented by two additional vocabulary assessments: a version of Meara and

Milton's (2003) X-Lex Vocabulary Test adapted from Milton (2009) and Form B of Beglar and Hunt's (1999) Revised University Word Level Test, based on Nation's (1990) University Word List.

The X-Lex Vocabulary Test (Appendix C) is a "yes/no" assessment of vocabulary breadth (Milton, 2009; Read, 2007) that estimates knowledge of the first 5,000 most frequently used English word families. The test taker places a checkmark beside each word he or she knows and can use. In addition to 100 real English words, the assessment includes 20 pseudo "words" created to look like real English words. As a correction for guessing, pseudo words are weighted heavier than real words and are calculated to reduce the total score, or estimated vocabulary size. Although not widely known in the United States, the X-Lex assessment has been used in other countries, particularly in Europe, as a rough measure of vocabulary knowledge among learners of English as a foreign language. The paper-and-pencil version of the X-Lex used in the present study proved difficult to score and failed to differentiate between Generation 1.5 and non-Generation 1.5 study participants since the results for both groups indicated a vocabulary breadth of slightly more than 4,000 words. Nevertheless, the reliability coefficient (Cronbach's alpha) for this administration was .92. No comparable measure was found in published studies reporting similar applications of the X-Lex; however, Milton (2009) has reported statistically significant correlations between the X-Lex Vocabulary Test and other measures of language proficiency including the TOEFL and the Common European Framework of reference for Languages (CEFR).

The University Word List assessment used in this study (Appendix D) was one of two parallel forms (Form B) developed by Belgar and Hunt (1999) from Nation's (1990) Vocabulary Levels Test. Words in this 27-item assessment were selected from some 800 "general academic words which occur across a wide range of academic disciplines" (Coxhead, 1998, as cited in Belgar & Hunt, 1999, p. 132). The assessment presents nine sets of six words and three short definitions or synonyms; the task of the test taker is to match the words with their corresponding definitions. In a detailed analysis of the instrument's validity and reliability, Belgar and Hunt reported a reliability coefficient of .96 (Cronbach's alpha) based on test results for 464 Japanese high school and university students studying English as a foreign language. The comparable figure for this assessment in the present study of 118 more linguistically diverse community college ESL students was .87.

Knowledge of idioms occurring with high frequency in academic English was assessed using a 10-item quiz developed by Simpson and Mendis (2003) expanded by the addition of six researcher-constructed items using idioms drawn from the same 1.7-million-word corpus of academic text analyzed by Simpson and Mendis. The resulting 16-item assessment was subjected to inter-item analysis and subsequently reduced to ten items that contributed the most to a measure of internal consistency (Cronbach's alpha). The 10 assessment items retained for use as a measure of knowledge of English idioms in this study were a mix of original items from Simpson and Mendis and items developed by the researcher. Although this composite version of the academic idioms assessment is referred to in Chapter 4 as the "strong" version, the coefficient of reliability was only .48.

Given the exploratory nature of the Simpson and Mendis study and their use of the instrument as a pedagogical tool, the authors did not report a comparable measure of internal consistency for the published version of the instrument.

Data from the above measures of vocabulary breadth and knowledge of academic idioms knowledge were used primarily in responding to Research Question 1. They were also used in a variety of correlational analyses of variables addressed in all three research questions, results of which are reported in Chapter 4.

**Self-reports of reading strategies use.** Study participants were asked to report on their use of reading strategies using the Survey of Reading Strategies (SORS) developed by Mokhtari and associates (Mokhtari & Reichard, 2002; Mokhtari & Sheorey, 2002; Mokhtari & Sheorey, 2008). Comprising 30 Likert-scale items grouped into three subscales, the SORS instrument is a measure of metacognitive awareness (Research Question 2) that asks respondents to reflect and report on how they process academic texts. One 13-item subscale (Global Strategies) focuses on “intentional, carefully planned techniques by which learners monitor or manage their reading” (Mokhtari, Sheorey, & Reichard, 2008, p. 51). Global strategies include pre-reading activities such as looking over a text to determine the level of effort that will be required to achieve one’s reading purpose. A nine-item Problem-Solving Strategies subscale focuses on strategies proficient readers use in monitoring comprehension during the process of reading. These include actions such as rereading a text to improve comprehension or adjusting reading speed as a given text becomes easier or more difficult. Finally, an 8-item Support Strategies subscale relates to the use of support mechanisms such as consulting a

dictionary, taking notes, and annotating texts in order to aid comprehension or recall. In addition to the three subscale scores, a total score is calculated by averaging responses to all 30 items and is interpreted as an indication of the level of one's awareness and use of strategies believed to contribute to reading proficiency.

Mokhtari and his colleagues have reported at length on the development of the SORS and evaluations of its validity and reliability (summarized in Mokhtari & Sheorey, 2008). In pilot testing involving 147 ESL students at two U.S. universities, Mokhtari, Sheorey, and Reichard (2008) found "consistent results relative to the instrument's overall reliability (Cronbach's  $\alpha = .89$ ), indicating a reasonable degree of consistency in measuring awareness or perceived use of reading strategies" (p. 50). The coefficient of reliability (Cronbach's  $\alpha$ ) for the present study was .87.

## **Procedure**

Data collected directly from study participants were collected during normal class meetings during the second half of the 2012 fall semester. A similar protocol was followed in each of the seven class sections involved in the study; however, course instructors of two of the three hybrid sections included in the study requested that data collection be split between two consecutive class meetings in order to minimize the loss of instructional time in any one class meeting.

In each section, data collection began with a scripted introduction of the study (Appendix G) presented by the researcher. A prerecorded, three-minute video introduction was used in some sections, but in other sections the availability of suitable classroom technology or instructor preferences favored the use of a "live" presentation.



In both formats, the introduction included an explanation of consent rules and emphasized that participation in the study was voluntary, would not be compensated, and would not influence participants' grades or standings in the course. Only one student declined to participate in the study, and that student was given an alternative instructional activity by the course instructor.

Following the distribution of consent forms (Appendix H), actual data collection in each section began with completion of the personal inventory. As expected from pilot testing, completion of the personal inventory and all language and reading assessments took approximately 60 minutes. In the case of the two hybrid sections in which data collection was split, this resulted in two 30-minute sessions.

### **Consent and Privacy**

Prior to the collection of data, study proposals were submitted for review and approval as stipulated by policies and regulations governing research involving human subjects at both George Mason University and Northern Virginia Community College. During the semester that data were collected, I did not teach Level 4 courses at NOVA, and none of the study participants had been students in sections of ESL courses I had taught prior to the study.

In order to ensure the privacy of study participants, no personally identifiable information was retained or reported. During the initial phase of the study, information linked to student identification numbers was stored only on NOVA servers. During the data analysis phase, student ID numbers were replaced with randomly generated, three-digit case numbers. At the conclusion of the study, the reading strategies survey and the

assessments of vocabulary and idioms were returned to study participants together with a handout explaining how to interpret the Survey of Reading Strategies scores. Personal inventory forms completed by study participants were shredded.

### **Data analysis**

Statistical analyses were performed using IBM SPSS Statistics (originally, Statistical Package for the Social Sciences, subsequently rebranded as PASW (Predictive Analytics SoftWare), and marketed at the time of the study as IBM SPSS Statistics). Given the relatively small number of Generation 1.5 participants in the study sample, the level of analysis was limited in some instances where cell sizes would have fallen below recommended thresholds.

Except as noted in Chapter 4, most of the quantitative measures in the study involved nominal or ordinal level data, coded and manipulated by SPSS as “scale” variables. In addition to standard descriptive analyses, the study relied heavily on correlation analyses, evaluated using Pearson’s  $r$ , and on comparisons of means, evaluated using T-tests for independent samples or One-way Analyses of Variance (ANOVA) as appropriate. The Chi-squared probability distribution was used for comparisons of categorical variables. Cronbach’s alpha was used as the coefficient of internal consistency for the various vocabulary assessments and the Survey of Reading Strategies.

## **Summary**

This chapter has described the setting in which the study was conducted, the selection and composition of the study sample, the battery of measurement instruments used to collect quantitative data linked to characteristics commonly attributed to post-secondary Generation 1.5 L2 English bilinguals in the literature on language learning and second-language reading, the protocol followed during the data-collection phase of the study, and the statistical methods and tests used in analyzing results obtained from measurement tools. The chapter also discussed steps taken to ensure the integrity and privacy of information provided by study participants in compliance with policies and regulations governing research involving human subjects. In Chapter 4, study findings will be presented.

## CHAPTER FOUR

In this chapter, study findings for each of the three research questions are presented. Consistent with general themes emerging from the literature reviewed in Chapter 2, results from this study affirm much of conventional wisdom and research-based knowledge regarding characteristics attributed to Generation 1.5 language learners. Like many constructs in the social sciences, however, the notion of a Generation 1.5 language learner is not an all-or-none proposition. As the literature reviewed in Chapter 2 also indicated, an array of characteristics and descriptors have been shown to correlate statistically with the construct, but each Generation 1.5 L2-English learner/speaker exhibits a unique profile, and the variability known to characterize language learners in general is likewise affirmed by results from this study.

Highlighting the gap between expectation and performance foreshadowed in the opening pages of Chapter 1, course outcomes for Generation 1.5 students in this study were not commensurate with the strengths they demonstrated in other areas. Of the 17 Generation 1.5 students enrolled in ESL 42 for the first time, 13 (76.5 percent) successfully completed the course compared to 89 of the 101 (88.1 percent) first-time enrollees who received their secondary education outside of the United States,  $\chi^2(3, N = 118) = 6.90, p = .075$ . When repeating students are added back into the sample, the success rate for Generation 1.5 students drops further to 68.2 percent (versus 87.5 percent

for non-Generation 1.5 study participants) since two of the five Generation 1.5 repeaters failed the course for a second time,  $\chi^2(4, N = 126) = 12.16, p = .016$ . In each comparison the relatively small sample size limits any conclusions that may be drawn regarding differences attributable to the Generation 1.5 experience; nonetheless, similar patterns appear across a variety of variables of interest identified in the study including instances, such as the above example reporting course outcomes, in which differences were in the predicted direction even if not statistically significant. Collectively, study results point toward the continued utility of the Generation 1.5 metaphor viewed as a cluster of factors that should be taken into consideration in assessing, placing, and instructing post-secondary L2-English bilingual speakers. Support for this conclusion is detailed in the sections that follow, organized by research question.

### **Research Question 1**

What are the similarities and differences between Generation 1.5 L2 English speakers and their classmates in an ESL Level 4 reading class who received all or most of their K-12 schooling outside of the United States on demographic, cognitive, and linguistic variables believed to reflect or predict success in second-language reading?

**Age and gender:** With respect to gender, the two subsamples presented contrasting, though statistically insignificant, patterns. Among graduates of U.S. high schools, the ratio was 58.8 percent male to 41.2 percent female, compared to 45.5 percent male/54.5 percent female for those who graduated from high school outside of the United States,  $\chi^2(1, N = 118) = 1.03, p = .310$ . Among traditional-age college students, however, the ratio was more even. When the sample size was reduced to 61 students in

the 17 to 25 age range, the ratio was 41 percent female/59 percent male for Generation 1.5 students (n = 17) and 43 percent female/57 percent male for the non-Generation 1.5 group (n = 44). In partial correlations and multi-layered cross tabulations controlling for gender, no statistically significant evidence of gender interaction was found.

Predictably, Generation 1.5 study participants were notably younger than their classmates who graduated outside of the United States. This finding, in part, is a reflection of the nature of community colleges, whose mandate is to serve a broad spectrum of learners who enter the system from a variety of starting points. Students who received their K-12 education outside of the United States typically emigrate later in life, and many come to the United States having already completed some level of post-secondary study. By contrast, Generation 1.5 students typically enter the community college system directly from high school. As Table 1 indicates, not only were the Generation 1.5 students in this study younger than their foreign-educated classmates, the variation in ages was also much smaller. All of the Generation 1.5 participants in the study were under the age of 26.

Table 1

***Age on date of testing***

Where did you graduate from high school?	N	Minimum	Maximum	Mean*	Median
In the United States	17	19	25	20.97	20.20
In home or another country	101	17	55	29.56	26.68
Whole sample	118	17	55	28.32	24.76

**Age at onset and length of exposure:** The median age on arrival in the United States for members of the Generation 1.5 subsample was 15 years ( $\bar{x} = 14.88$ ), and the median length of residence in the United States was 5 years ( $\bar{x} = 5.53$ ). On average, Generation 1.5 students received 2 years of K-12 ESL support, ranging from no ESL support for some students who entered the United States at an early age to a maximum of 7 years of support. Directly comparable data were not solicited for the subsample of students who graduated from high school outside of the United States; however, the median age at which students in this group reported they first started to learn English was 12 years ( $\bar{x} = 11.46$ ). Twenty-nine of the 101 students in this group reported attending an English-language school at some time during their home-country K-12 education, and 12 reported having graduated from an English-language high school abroad. More than half of the foreign-educated students (58 out of 101) reported they had attended or graduated from college in their home countries.

**Performance on language assessments:** In both the larger group of first-time enrollees ( $n = 118$ ) and the smaller group of traditional college-age learners ( $n = 60$ ), Generation 1.5 students outperformed their foreign-educated classmates, including those who graduated from English-language high schools abroad, on all three components of the Accuplacer Levels of English Proficiency and on the test of Academic Idioms. In each case,  $t$ -test scores for independent samples were significant at  $p < .05$ . Results for the large sample ( $n = 118$ ) are summarized in Table 2.

Table 2

*Scores on assessments of language performance*

Assessment	U.S. HS GRADS		FOREIGN HS GRADS		Independent-Samples
	N	Mean Score	N	Mean Score	<i>t</i> -test
Reading Skills	17	102.00	99	91.88	$t(114) = -2.79, p = .006$
Sentence Meaning	17	110.00	99	95.27	$t(75.38) = -7.71, p = .000$
Language Usage	17	104.24	99	93.71	$t(114) = -2.83, p = .006$
Academic Idioms	17	7.88	100	6.26	$t(115) = -3.05, p = .003$

For the large sample ( $n = 118$ ) there were no significant differences in mean scores on the University Word List assessment or the X-Lex Vocabulary assessment; however, for the smaller group of traditional college-age students ( $n = 60$ ), the difference in mean scores on the University Word List assessment approached significance,  $t(58) = -1.93, p = .058$ , with the advantage going to the Generation 1.5 group.

In summary, on demographic variables examined in connection with Research Question 1, Generation 1.5 learners appeared to be very similar to their classmates who received their K-12 education outside of the United States. The similarities were especially close when comparisons were restricted to the subsample of students aged 19 through 25, that is, among students of traditional undergraduate college age.

With respect to the cognitive and linguistic variables examined for Research Question 1, Generation 1.5 students and their foreign-educated classmates were also closely matched on two measures of vocabulary knowledge (the University Word List assessment and the X-Lex Vocabulary assessment of the 5,000 most frequently occurring word families in English); however, despite their comparatively lower pass rate for the course, Generation 1.5 students demonstrated a clear advantage on vocabulary and



linguistic variables measured by the three components of the Accuplacer Levels of English Proficiency and by the test of Academic Idioms. These latter results, in particular mean scores from the Accuplacer measures of language usage and sentence meaning, point to the cumulative value of daily L2 English use in real-life interactions (Valdés, 1992) and, together with results from the Academic Idioms test, might be interpreted as evidence of communicative competence acquired in large measure through aural/oral channels. While no cause-effect relationship can be claimed, these findings are at least consistent with the notion that Generation 1.5 learners tend to be more “ear” learners than “eye” learners (Harklau, Siegal, and Losey, 1999; Mikesell, 2007; Reid, 1997).

## **Research Question 2**

What are the similarities and differences between Generation 1.5 L2 English speakers and their classmates in an ESL Level 4 reading class who received all or most of their K-12 schooling outside of the United States on measures of reading performance, perceived efficacy as second-language readers, and use of reading strategies?

The Reading Skills component of the Accuplacer battery was the only direct measure of reading comprehension used in the study and, as noted in the previous section, Generation 1.5 students outscored their foreign-educated classmates on this assessment by a statistically significant margin. Other indices of reading proficiency included in the study addressed language components of literacy (the Language Usage and Sentence Meaning components of the Accuplacer battery plus the trio of vocabulary assessments discussed in the previous section); the influence of metacognitive awareness in literacy development (questions adapted from the Interagency Language Roundtable’s,

n.d., Self-Assessment of Reading Proficiency and Mokthari and Sheorey's, 2008, Survey of Reading Strategies); and questions that solicited respondents' perceptions of the nature of literacy.

Although not intended as a measurement of reading comprehension, the lengthy personal inventory questionnaire itself also revealed insights into the challenge post-secondary L2-English bilingual students face when confronted with cognitively demanding, context-reduced texts in a college classroom. Post-hoc analysis of the personal inventory yielded a Flesch-Kincaid Grade Level of difficulty of 10.3. Eighty-seven percent of the words in the text were among the 2,000 most frequently occurring words in English. Nonetheless, seemingly random response errors and requests for clarification from respondents during the data-collection sessions stood in contradiction to the confident self-assessments of reading proficiency and claims of English dominance reported by many respondents. Despite being instructed that the personal inventory and various assessments were to be completed closed-book, for example, in every section at least one student asked for permission to use a dictionary, and several students attempted to consult a dictionary or a classmate surreptitiously. Several students marked multiple responses on items that requested a single answer. A number of foreign-educated students who indicated they had attended an English-language school at some time during their K-12 education experience apparently did not understand a follow-up question that asked them to circle numbers corresponding to the grades during which they attended an English-language school.

Affirming the perceived “centrality of vocabulary” discussed in Chapter 2, half of the Generation 1.5 students (50 percent, n=16) and half of their foreign-educated classmates (49.5 percent, n = 93) identified vocabulary as the single biggest obstacle to understanding college-level texts in English (Item 23 in the personal inventory). The two groups differed, however, in their rank ordering of other obstacles to reading comprehension presented as possible responses in the survey question. Among Generation 1.5 students, “lack of interest in the topics discussed in the text,” cited by 5 of 16 respondents (31 percent), ranked second as their single biggest obstacle. Among students who received their K-12 education outside of the United States, however, “the way English sentences are constructed” was ranked second, cited by 18 of 93 respondents (19 percent). Further down the list for both groups, “Understanding slang and cultural references” was cited by 2 of the 16 Generation 1.5 students (13 percent) and 17 of the 93 foreign-educated students (18 percent) as obstacles to understanding English language texts.

In their responses to items adapted from the Interagency Language Roundtable Self-Assessment of Reading Proficiency (Items 15 through 22 in both versions of the personal inventory), Generation 1.5 readers reported a higher overall level of perceived reading competence than did their foreign-educated classmates. Each of the eight parallel items presented a statement related to reading proficiency followed by three possible responses: “yes,” “no,” or “not sure.” (Item 15, for example, stated: “I can understand the main idea and some details of clearly organized, short, straightforward texts about places, people, and events that I am familiar with.”) “Yes” responses for these eight items

were aggregated to create an index of perceived reading proficiency ranging in value from 0 to 8. For Generation 1.5 participants the mean score on this index was 4.71 (59 percent of the Generation 1.5 participants responded “yes”), versus a mean score of 3.52 for foreign-educated participants (44 percent of the non-Generation 1.5 participants responded “yes”). This difference was statistically significant,  $t(116) = -2.266, p = .025$ .

Both Generation 1.5 and foreign-educated participants expressed modest confidence in their ability to function in an American college classroom (Item 28) and to handle the quantities of reading assigned by their professors (Item 29). Mean scores for the whole sample were higher on the first of these two 5-point, Likert-scale items than on the second ( $\bar{x} = 3.82$  vs.  $\bar{x} = 2.53$ ); however, because Item 29 was stated in the negative, lower scores indicated higher levels of confidence. For both items there was no statistically significant difference between the two groups of study participants.

A clearer image of the similarities between the two groups emerged when Items 28 and 29 were transformed into categorical variables by collapsing responses at the two extremes of the 5-point Likert scale and ignoring the middle choice. Results of the resulting forced distribution are summarized in Table 3.

Table 3

***Responses to personal inventory Items 28 and 29***

<b>Q28.</b> I feel totally comfortable and confident in an American college classroom.	US HS GRADS (n = 13)	FRN HS GRADS (n= 79)	Test of Significance
Strongly Agree/Agree	84.6%	83.5%	$\chi^2(1, N = 92) = .009, p = .923$
Disagree/ Strongly Disagree	15.4%	16.5%	
Total	100.0%	100.0%	

<b>Q29.</b> I am concerned that I might not be able to keep up with the quantity of reading assigned by my college professors.	US HS GRADS (n = 10)	FRN HS GRADS (n = 71)	Test of Significance
Strongly Agree/Agree	20.0%	26.8%	$\chi^2(1, N = 81) = .209, p = .648$
Disagree/ Strongly Disagree	80.0%	73.2%	
Total	100.0%	100.0%	

While both Generation 1.5 participants and their foreign-educated classmates were generally positive in self-assessing their L2-English literacy skills, indications of doubt and uncertainty were also present as reflected in the relatively large numbers of participants in both groups who selected the “not sure” option on five of the eight reading proficiency self-assessment items. In the instructions for this portion of the inventory, participants were asked to circle the “not sure” option if they were uncertain about their ability to read at the level indicated or if they did not understand the question. The overall average number of “not sure” responses for both Generation 1.5 and foreign-educated participants was roughly 25 percent; however, this varied greatly from item to item and between the two groups. Observed and expected distributions for each item were compared using the Chi-Square test, but differences were statistically significant only for

Item 21,  $\chi^2(2, N = 112) = 8.880, p = .012$ . Results for this item are summarized in Table

4. Response patterns were similar for other items even if less extreme and not statistically significant.

Table 4

***Responses to personal inventory Item 21***

	US HS GRADS		FRN HS GRADS		Total	<i>p</i>
<b>Q21.</b> I can understand both the meaning and the intent of most uses of idioms, cultural references, word play, sarcasm, and irony in even highly abstract and culturally “loaded” texts.	Yes	7 (41%)	Yes	12 (13%)	19 (17%)	.012
	No	6 (35%)	No	38 (40%)	44 (39%)	
	Not Sure	4 (24%)	Not Sure	45 (47%)	49 (44%)	
	Total	17 (100%)	Total	95 (100%)	112 (100%)	

Results from an opinion question on placement highlighted further the difference in perceived language competence between Generation 1.5 students and students who received their K-12 education outside of the United States. Among first-time enrollees in ESL 42, 82 percent of the Generation 1.5 students ( $n = 14$ ) and 52 percent of their foreign-educated classmates ( $n = 52$ ) “tested” into the course based on their Accuplacer scores and a writing sample; the remaining 18 percent of the Generation 1.5 students ( $n = 3$ ) and 48 percent of foreign-educated students ( $n = 49$ ) “graduated” into the course after completing ESL Level 3 coursework. Students who tested into the course ( $n = 66$ ) were asked whether they thought they had been appropriately placed. Eight respondents chose

not to answer this question. Of the remaining 58 students, 69 percent of the Generation 1.5 students ( $n = 9$ ) responded “no” and 31 percent ( $n = 4$ ) said “yes.” In contrast, only 11 percent of the non-Generation 1.5 students ( $n = 5$ ) felt they had not been appropriately placed while 89 percent ( $n = 40$ ) indicated satisfaction with their placement. A subsequent open-ended question invited students who were dissatisfied with their placement to indicate what they thought would have been a more appropriate placement. Most respondents left this question blank, and no clear pattern emerged from the few responses that were provided, suggesting possibly that the question was not understood by all, or that respondents were not aware of possible alternative placements, or that they were unable to articulate their opinions; however, a number of students predictably wrote that they should have been placed in a Level 5 ESL course or not placed in the ESL program at all.

A pair of questions in the personal inventory asked participants which of their languages they considered stronger for college-level reading and college-level writing. (Note: Possible responses were “English,” “my native language,” or “a language other than English or my native language.”) For both reading and writing, students who received their K-12 education outside of the United States favored their native language over English or a third language by a ratio of 60 to 40 percent. By contrast, slightly more than half (53 percent) of the Generation 1.5 participants expressed a preference for English when reading college-level texts. With respect to college-level writing, however, 53 percent of the Generation 1.5 students considered their native language the stronger of their two languages. Responses are summarized in Tables 5 and 6.

Table 5

***Responses to personal inventory Item 13 (stronger language for reading)***

	US HS GRADS		FRN HS GRADS		Total
Q13: Which do you consider the stronger of your languages for college-level reading?	English	8 (53%)	English	29 (31%)	37 (34%)
	Native Language	6 (40%)	Native Language	56 (60%)	62 (57%)
	Third Language	1 (7%)	Third Language	8 (9%)	9 (9%)
	Total	15 (100%)	Total	93 (100%)	108 (100%)

$$\chi^2(2, N = 108) = 2.827, p = .243$$

Table 6

***Responses to personal inventory Item 14 (stronger language for writing)***

	US HS GRADS		FRN HS GRADS		Total
Q14: Which do you consider the stronger of your languages for college-level writing?	English	8 (47%)	English	32 (33%)	40 (35%)
	Native Language	9 (53%)	Native Language	59 (62%)	68 (60%)
	Third Language	0 (0%)	Third Language	5 (5%)	5 (5%)
	Total	17 (100%)	Total	96 (100%)	113 (100%)

$$\chi^2(2, N = 113) = 1.828, p = .401$$

When participants who indicated a preference for a third language were removed from the above analysis, similar, though more pronounced, patterns emerged. Observed



and expected distributions for each item, with and without participants who indicated a preference for a third language, were compared using the Chi-Square test; the observed differences, however, still were not statistically significant.

As documented in the literature reviewed in Chapter 2, metacognitive and metalinguistic knowledge are believed to play critical roles in advanced language and literacy development. In this study, measures of self-efficacy such as items adapted from the Interagency Language Roundtable Self-Assessment of Reading Proficiency and questions in the personal inventory that asked study participants to evaluate their language and literacy skills were used as indicators of these important constructs. So, too, were results from Mokhtari and Sheorey's (2008) Survey of Reading Strategies (SORS).

Introduced in somewhat greater detail in Chapter 3, the Survey of Reading Strategies (SORS) measures "the knowledge readers have about themselves and about the particular tasks they are engaged in while reading a text" (Mokhtari, Sheorey, & Reichard, 2008, p. 44). In addition to providing an overall indicator of metacognitive knowledge, or awareness, the SORS yields scores on three subscales identified through factor analysis and denoted by Mokhtari and his colleagues as Global Strategies, Problem-Solving Strategies, and Support Strategies. Based on scores from students in norming groups used in constructing the SORS instrument and a precursor instrument developed with native English speakers, the authors identified three levels of reading strategy usage: "high (mean = 3.5 or higher), moderate (mean = 2.5 – 3.4), and low (mean = 2.4 or lower)" (Mokhtari, Sheorey, & Reichard, 2008, p. 53). In the present study, the total mean score for Generation 1.5 participants was 3.38 and for foreign-

educated participants 3.61. This difference approached, but did not reach, statistical significance,  $t(113) = 1.858, p = .066$ .

On two of the SORS subscales – Global Strategies and Problem-Solving Strategies – there were no statistically significant differences between Generation 1.5 study participants and participants educated abroad. On the Support Strategies subscale, however, the mean score for study participants who received their K-12 schooling outside of the United States was higher than the mean score for Generation 1.5 study participants,  $t(113) = 2.833, p = .005$ . While at first glance this might appear to be evidence that foreign-educated study participants were more diligent users of reading strategies than U.S.-educated, Generation 1.5 participants, an alternative interpretation is that L2-English bilingual speakers coming from an environment in which English is not the language of daily interaction may be more dependent on dictionaries and mental translation than their U.S.-educated classmates. As Mokhtari, Sheorey, and Reichard (2008) note, “a student who reports overusing support strategies, such as ‘using the dictionary’ to look up every word in text, may have a restricted view of reading” (p. 54).

Statistically significant differences between Generation 1.5 students and non-Generation 1.5 students were found on three of the individual SORS items, all of them part of the Support Strategies subscale, as indicated in Table 7.

Table 7

***Responses to personal inventory Items 13, 29, and 30***

SORS Item	U.S. HS GRADS		FOREIGN HS GRADS		Independent-Samples t-test
	N	Mean Score	N	Mean Score	
<b>13.</b> I use reference materials (e.g., a dictionary) to help me understand what I read.	17	3.18	99	3.88	$t(114) = 2.515, p = .013$
<b>29.</b> When reading, I translate from English into my native language.	17	2.59	98	3.29	$t(113) = 2.015, p = .046$
<b>30.</b> When reading, I think about information in both English and my mother tongue.	17	2.76	98	3.42	$t(113) = 2.072, p = .041$

On each of these three items, mean scores for foreign-educated participants were higher than those for Generation 1.5 participants. That is, foreign-educated students reported greater reliance on outside support and on their native language than did their Generation 1.5 classmates. These results are consistent with the hypothesized overuse of support strategies discussed in Mokhtari, Sheorey, and Reichard (2008).

Starting from the premise that “high-ability readers tend to exhibit higher levels of metacognitive awareness about reading processes than do low-ability readers” (Mokhtari, Reichard, and Sheorey, 2008, p. 100), the present study sought evidence of links between proxies for metacognitive/metalinguistic awareness and measures of reading performance and reading-related skills. For the purpose of the analysis that follows, the performance/skills side of the comparison encompassed scores from the Accuplacer

Reading Skills assessment, measures of language-related components of literacy (i.e., Accuplacer Sentence Meaning and Language Usage scores plus results from the three vocabulary assessments), and course outcomes (final grade in ESL 42).

Pearson product-moment correlation coefficients were computed separately for Generation 1.5 and for foreign high school graduates on seven measures of metacognitive/metalinguistic awareness and seven measures of reading performance/skills. Measures used as indicators of metacognitive awareness were average scores on each of the three subscales of the Survey of Reading Strategies (global, problems solving, and support) plus the SORS average total score; average number of “yes” responses on the eight items adapted from the Interagency Language Roundtable Self-Assessment of Reading Proficiency (Items 15 through 22 on the Personal Inventory); and responses indicating English “dominance” on Items 13 (reading) and 14 (writing) of the Personal Inventory. Measures used as indicators of reading proficiency were scores on the three components of the Accuplacer Levels of English Proficiency (reading comprehension, language use, and sentence meaning), scores on the three vocabulary assessments (University Word List, X-Lex, and Academic Idioms), and final course grade. This resulted in a matrix of 49 possible correlations for each participant group.

Only three statistically significant correlations were found for study participants who completed their K-12 education outside of the United States, and all were weak ( $r < .25$ ). For the Generation 1.5 group, four correlations were statistically significant, and another two were close. Coefficients ranged from .486 to .684, indicating moderate

relationships. In both groups, two indicators of metacognitive/metalinguistic awareness were involved in the majority of statistically significant – or near significant -- correlations: mean scores on the SORS Problem Solving scale and average number of “yes” responses on the eight items from the Interagency Language Roundtable Self-Assessment of Reading Proficiency. Statistically significant – and near significant – correlations are summarized in Tables 8 and 9.

Table 8

***Statistically significant and near-significant correlations between indicators of metacognitive/metalinguistic awareness and measures of reading performance/skills: U.S. high school graduates***

<b>Metacognitive/Metalinguistic Variable</b>	<b>Reading Proficiency/Skill Variable</b>	<b>Pearson's <i>r</i></b>
Interagency Language Roundtable Self-Assessment of Reading Proficiency (average number of “yes” replies)	Final grade in ESL 42	$r(17) = .536, p = .026$
Interagency Language Roundtable Self-Assessment of Reading Proficiency (average number of “yes” replies)	Accuplacer Reading Skills	$r(17) = .473, p = .055$
Survey of Reading Strategies Problem Solving	Accuplacer Sentence Meaning	$r(17) = .486, p = .048$
Survey of Reading Strategies Problem Solving	Accuplacer Language Usage	$r(17) = .684, p = .002$
Survey of Reading Strategies Problem Solving	X-Lex Vocabulary Assessment	$r(17) = .626, p = .007$
Personal Inventory Item #14: “Which do you consider the stronger of your languages for college-level writing?” (English dominant)	Academic Idioms Assessment (strong version)	$r(17) = .481, p = .051$

Table 9

***Statistically significant and near-significant correlations between indicators of metacognitive/metalinguistic awareness and measures of reading performance/skills: foreign high school graduates***

<b>Metacognitive/Metalinguistic Variable</b>	<b>Reading Proficiency/Skill Variable</b>	<b>Pearson's <math>r</math></b>
Interagency Language Roundtable Self-Assessment of Reading Proficiency (average number of "yes" replies)	X-Lex Vocabulary Assessment	$r(98) = .212, p = .036$
Interagency Language Roundtable Self-Assessment of Reading Proficiency (average number of "yes" replies)	Academic Idioms Assessment (strong version)	$r(100) = .228, p = .023$
Survey of Reading Strategies Problem Solving	Accuplacer Sentence Meaning	$r(96) = .234, p = .022$

In summary, not only did Generation 1.5 students score higher than their foreign-educated classmates on measures of reading skills, vocabulary knowledge, and language usage, they also appeared to be somewhat more confident of their command of L2 English literacy. This was reflected in their higher mean score on the eight items from the Interagency Language Roundtable Self-Assessment of Reading Proficiency and their responses to a pair of items that asked them which of their languages they considered stronger for reading and writing academic texts. Yet another indication of this self-confidence was the widely shared view among Generation 1.5 students that they had been inappropriately placed in an ESL Level 4 reading course.

Reported use of reading strategies was higher among students who received their K-12 schooling outside of the United States, but this may have been a reflection of their greater reliance on Support Strategies such as dictionary use and L2/L1 translation. In

contrast, Generation 1.5 participants reported they relied more heavily on Problem Solving Strategies.

Overall, study results provided some, albeit modest, support for a possible link between indicators of metacognitive awareness and measures of reading proficiency in older adolescent and adult readers, and the link was more evident in the Generation 1.5 group than in the foreign-educated group.

### **Research Question 3**

What are the similarities and differences between Generation 1.5 L2 English speakers and their classmates in an ESL Level 4 reading class who received all or most of their K-12 schooling outside of the United States with respect to the self-reported reading they do for pleasure and other purposes not related to school or work?

Generation 1.5 study participants and their foreign-educated classmates appeared more alike than different on variables in the personal inventory related to attitudes toward reading, reading habits, and media preferences. Both groups claimed modest enjoyment of reading in their spare time (Item 25), both affirmed the symbiotic relationship between reading and writing (Item 26), and both took issue with the suggestion that reading is less important today than it was in their parents' generation (Item 27). While the pattern of responses to these and related 5-point, Likert-scale items was clear and consistent, differences between the groups were statistically significant only for the first and third propositions (i.e., Item 25 and Item 27). For Item 25, ("I enjoy reading in my spare time."), the mean score for foreign-educated participants was 3.64, compared to 2.94 for Generation 1.5 participants,  $t(116) = 2.310, p = .023$ . For Item 27 ("Reading is less

important today that it was in my parents' generation.”), the scale was reversed; that is, a lower score (disagreement) was interpreted as showing greater appreciation for reading. On this item, the mean score for foreign-educated participants was 1.98 versus a mean score of 2.71 for Generation 1.5 participants,  $t(115) = -2.215, p = .029$ . Together, responses to Items 25 and 27 suggest a somewhat stronger affinity for reading on the part of foreign-educated than for Generation 1.5 study participants, but for both groups on both items responses tended toward the center of the 5-point Likert scale, that is, did not indicate a strong interest in reading. It should be noted, however, that the pattern of responses to Item 25 (“I enjoy reading in my spare time.”) may have been different if the item had solicited instead responses specific to a variety of reading genres and reading-related activities.

In order to more clearly illustrate the range of responses regarding attitudes toward reading and reading habits, Item 25 and Item 27 plus three thematically related variables (Item 26, Item 30, and Item 31) were converted from Likert-scale variables to categorical variables by eliminating the middle ranking and collapsing responses at the two extremes into two categories: “Strongly Agree or Agree” and “Disagree or Strongly Disagree.” Chi-square tests for this forced distribution affirmed a statistically significant difference between Generation 1.5 and foreign-educated participants for Item 27,  $\chi^2(1, N = 99) = 4.571, p = .033$ , but not for the other four items. Results are presented in Table 10.



Table 10

***Responses to personal inventory Items 25, 26, 27, 30, and 31***

<b>Q25.</b> I enjoy reading in my spare time.	US HS GRADS (n = 12)	FRN HS GRADS (n= 78)	Test of Significance
Strongly Agree/Agree	50.0%	75.6%	$\chi^2(1, N = 90) = 3.408, p = .065$
Disagree/ Strongly Disagree	50.0%	24.4%	
Total	100.0%	100.0%	

<b>Q26.</b> One must read well to write well.	US HS GRADS (n = 17)	FRN HS GRADS (n = 95)	Test of Significance
Strongly Agree/Agree	88.2%	93.7%	$\chi^2(1, N = 112) = .645, p = .422$
Disagree/ Strongly Disagree	11.8%	6.3%	
Total	100.0%	100.0%	

<b>Q27.</b> Reading is less important today than it was in my parents' generation.	US HS GRADS (n = 14)	FRN HS GRADS (n = 85)	Test of Significance
Strongly Agree/Agree	42.9%	17.6%	$\chi^2(1, N = 99) = 4.571, p = .033$
Disagree/ Strongly Disagree	57.1%	82.4	
Total	100.0%	100%	

<b>Q30.</b> It is possible for a nonnative English speaker to <i>read</i> as well as a native speaker.	US HS GRADS (n = 15)	FRN HS GRADS (n = 82)	Test of Significance
Strongly Agree/Agree	93.3%	85.4%	$\chi^2(1, N = 97) = .694, p = .405$
Disagree/ Strongly Disagree	6.7%	14.6%	
Total	100.0%	100.0%	

<b>Q31.</b> It is possible for a nonnative English speaker to <i>write</i> as well as a native speaker.	US HS GRADS (n = 15)	FRN HS GRADS (n = 83)	Test of Significance
Strongly Agree/Agree	93.3%	79.5%	$\chi^2(1, N = 98) = 1.617, p = .203$
Disagree/ Strongly Disagree	6.7%	20.5%	
Total	100.0%	100.0%	

Item 34 in the personal inventory asked participants how many books they had read within the previous 12 months in English and in their native language. Responses varied greatly both within and between the two groups. Among Generation 1.5 students,

the total number of books read in both languages ranged from 0 to 68; the range among students educated outside of the United States was 0 to 303. Both mean and median scores were influenced by outlying values and likely overstate or understate actual bookreading. Coding and analysis were further complicated by the fact that Item 34 was presented as an open-ended question, making it impossible to discern whether the absence of a response was intended by the respondent to signify “0” books read or an intentional non-response and therefore to be tabulated as “missing.” Table 11 summarizes responses to Item 34 with both outliers (zero and extreme large values) and missing responses included in calculations.

Table 11

***Responses to personal inventory Item 34***

Number of books read	US HS GRADS	FRN HS GRADS
In L1 (mean/median)	4.82/0.00	8.39/1.00
In L2 (mean/median)	4.12/4.00	3.81/3.00
Total books read (mean/median)	9.50/5.00	12.34/8.94

ANOVA (L1 books read):  $F(1,110) = .061, p = .805$ ; ANOVA (L2 books read):  $F(1,108) = .197, p = .658$   
ANOVA (L1 + L2 books read):  $F(1,107) = .164, p = .687$

Table 12 summarizes the same data as Table 11 but with outliers and missing responses filtered out of calculations. While the results may be more representative measures of central tendency for the two groups of interest in this study, differences between Generation 1.5 participants and participants educated outside of the United States were statistically insignificant.

Table 12

***Responses to personal inventory Item 34 with outliers and missing responses filtered out***

Number of books read	US HS GRADS	FRN HS GRADS
In L1 (mean/median)	5.13/0.50	9.37/1.00
In L2 (mean/median)	4.38/4.00	4.30/3.00
Total books read (mean/median)	9.50/5.00	13.67/5.00

ANOVA (L1 books read):  $F(1,97) = .236, p = .628$  ; ANOVA (L2 books read):  $F(1,97) = .003, p = .955$ ANOVA (L1 + L2 books read):  $F(1,97) = .213, p = .646$ 

As a point of reference, bookreading reported by participants in the present study was compared to bookreading reported by large samples of adult readers included in polls published by Gallup and by the Pew Research Center's Internet & American Life Project. Results are presented in Table 13.

Table 13

***Bookreading reported by study participants compared to bookreading reported for large samples of adult readers***

	Pew 12/2011	Gallup 05/2005	NOVA (11/2012)		
			US HS GRADS	FRN HS GRADS	Total
None	19%	16%	5.9%	8.9%	8.5%
1 – 5 books	32%	38%	52.9%	41.6%	43.2%
6 – 10 books	15%	14%	35.3%	20.8%	22.9%
11-50 books	26%	25%	0.0%	14.9%	12.7%
>50 books	5%	6%	5.9%	5.0%	5.1%
Don't know refused	3%	1%	0.0%	8.9%	7.6%
Mean	17	14.2	8.94	12.34	11.81
Median	8	5	5.00	4.00	4.00

**Source:** Columns 2 and 3 extracted from Rainie, Zickuhr, Purcell, Madden, & Brenner (2012), "Book reading trends over time: % of adults (age 18+) who say they have read this number of books in the past 12 months," p. 19. For the NOVA groups, figures presented are total numbers of books read in both L1 and L2.

Despite a level of ambiguity introduced by the influence of outliers and missing values, and despite the absence of statistically significant differences between Generation 1.5 and foreign-educated participants, responses to Item 34 suggest that bookreading by students surveyed in this study differed little from bookreading reported by adult readers interviewed by Pew and Gallup. At the same time, the results also suggest that while both U.S. and foreign-educated participants in the present study reported that they were more comfortable reading in their native language than in English, participants who received their K-12 education outside of the United States were more likely than their Generation 1.5 classmates to favor books published in their L1 when reading for pleasure. This is consistent with findings reported in the previous section indicating a higher tendency toward English dominance among Generation 1.5 students than among students who received their K-12 education abroad.

Both Generation 1.5 and foreign-educated participants favored electronic dictionaries to print dictionaries by a margin greater than 4-to-1. A larger proportion of Generation 1.5 than foreign-educated participants expressed a preference for monolingual-English dictionaries, but overall there were no statistically significant differences in dictionary preferences. Responses to the question on dictionary use (Item 24) are presented in Table 14.

Table 14

***Responses to personal inventory Item 24***

Preferred dictionary	US HS GRADS	FRN HS GRADS	Total
Print, bilingual	0.0%	4.4%	3.7%
Print, monolingual (English only)	18.8%	13.2%	14.0%
Handheld electronic bilingual	0.0%	20.9%	17.8%
Online, bilingual	37.5%	34.1%	34.6%
Online, monolingual (English only)	43.8%	27.5%	29.9%
Total	100.0%	100.0%	100.0%

$\chi^2(4, N = 107) = 5.596, p = .231$

Echoing the pattern of responses to the question on dictionary use, responses to a multiple-response inventory item regarding the news media study participants said they relied on for news about national and international issues of interest to them showed a pronounced preference for electronic (broadcast and internet) media over traditional print media. Age and gender both interacted with choice of media, but neither was strong enough to mitigate an overall bias toward English-language, electronic media, especially the internet. Responses to Item 33 are summarized in Table 15.

Table 15

***Responses to personal inventory Item 33 (“How do you get most of your news about national and international issues of interest to you?”) Percentage of participants who selected each medium***

NEWS MEDIUM	US HS GRADS	FRN HS GRADS	Total
English-language newspapers $\chi^2(1, N = 118) = 1.970, p = .160$	58.8	40.6	43.2
Native-language newspapers $\chi^2(1, N = 118) = .358, p = .550$	23.5	30.7	29.7
English-language magazines $\chi^2(1, N = 118) = .765, p = .382$	52.9	41.6	43.2
Native-language magazines $\chi^2(1, N = 118) = .620, p = .431$	11.8	19.8	18.6
English-language radio $\chi^2(1, N = 118) = .002, p = .964$	58.8	59.4	59.3
Native-language radio $\chi^2(1, N = 118) = .086, p = .770$	5.9	7.9	7.6
English-language television $\chi^2(1, N = 118) = 1.845, p = .174$	47.1	64.4	61.9
Native-language television $\chi^2(1, N = 118) = .629, p = .428$	29.4	20.8	22.0
English-language internet $\chi^2(1, N = 118) = .178, p = .673$	70.6	65.3	66.1
Native-language internet $\chi^2(1, N = 118) = .765, p = .382$	29.4	40.6	39.0

Note: Item 33 was a multiple-response item; reported figures represent percent of respondents within each category who selected a given medium. The “total” in column 4 represents the proportion of respondents from the total sample (U.S. and foreign high school students combined) who selected a given medium.

In summary, Generation 1.5 students appeared to be somewhat less engaged readers than their foreign-educated classmates, but differences between the two groups on most measures related to reading attitudes and habits were slight. Both groups favored books published in their native language for reading not related to school or work, but the tendency was more pronounced among foreign-educated readers. In their responses to

questions on media preferences, the two groups were very similar to each other and to their native-English-speaking peers with respect to stated preferences for broadcast media and the internet for general news and information. Consistent with findings presented in the two preceding sections of this chapter, data from this section also pointed toward greater English dominance among Generation 1.5 participants, but differences between them and their foreign-educated classmates were less strong than might have been expected.

### **Other Factors**

Age effect and language distance, discussed at some length in Chapter 2, are among the many factors believed to affect second language learning. Important as they are, however, they have not been primary foci in published Generation 1.5 research and likewise lie beyond the scope of the three research questions addressed in this study. They are nevertheless discussed briefly in this section since several questions in the personal inventory solicited information related to these factors.

**Age effect.** Accurate ages of study participants were derived by subtracting date of testing from date of birth (extracted from student records). Participant ages ranged from 17 to 55; all Generation 1.5 participants were under the age of 26. Pearson product-moment correlation coefficients were statistically significant for only five associations involving age, and all of these were weak ( $r \leq .271$ ,  $p \leq .030$ ). Age was positively correlated with Item 25 (older participants reported greater enjoyment of reading), Item 33 (older participants were more apt to name English-language television as a preferred source for news), and scores on the University Word List and X-Lex vocabulary

assessments. Age was also positively correlated with Item 14 (“Which do you consider the stronger of your languages for college-level writing?”); however, this question had three possible responses (“English,” “my native language,” or “a language other than English or my native language”), and when the third option was filtered out the correlation was no longer statistically significant.

A proxy for age of onset for Generation 1.5 participants was arbitrarily defined as the age at which a participant moved to the United States; length of exposure/contact was defined as the difference between age on date of testing and age of onset. For participants who received their K-12 education outside of the United States, the self-reported age at which a participant first started to learn English was used as a proxy for age of onset, and, as with Generation 1.5 participants, length of exposure/contact was defined as the difference between age on date of testing and age of onset. Using these criteria, the mean age of onset for Generation 1.5 participants was 14.88 years, and the mean length of contact was 6.09 years. For foreign-educated participants, the mean age of onset was 11.64 years and the mean length of contact was 17.94 years. It was determined, however, that these were likely incommensurate measurements since it is probable that many of the Generation 1.5 students also began their study of English before moving to the United States. In addition, there was no question in the personal inventory that asked foreign-educated participants the age at which they moved to the United States.

Given the lack of comparable measurements, no effort was made to compare Generation 1.5 participants and their foreign-educated classmates for age-effects; however, Pearson product-moment correlation coefficients were calculated within each



group. For Generation 1.5 participants, age on arrival in the United States was negatively correlated with score on the X-Lex vocabulary assessment,  $r(17) = -.520, p = .033$ ; that is, younger age on arrival was associated with higher X-Lex vocabulary score. Length of residence in the United States for this group was positively correlated with Item 20 in the personal inventory (“I can understand long and complex analyses, factual reports, and literary texts . . .”),  $r(17) = .553, p = .021$ . For participants who received their K-12 education abroad, length of contact/exposure correlated positively with University Word List mean score,  $r(99) = .407, p = .000$ , and with X-Lex vocabulary mean score,  $r(98) = .236, p = .020$ . There was also a positive correlation with Item 14 (“Which do you consider the stronger of your languages for college-level writing?”) but, as pointed out earlier, this item included as a response option “a language other than English or my native language.” For the foreign-educated group, there were no statistically significant correlations involving the proxy for age of onset.

In short, because the study was not optimized to capture age effect, there was little evidence of any such effects within groups and no valid means of comparing age effect across groups. This remains, however, a potentially fruitful area for follow-up Generation 1.5 research.

**Language distance.** Defining, operationalizing, and measuring language distance proved even more elusive. While the notion is readily accepted that the perceived difficulty of learning a second language increases as the linguistic features of a given L1 and L2 diverge, no measure was found for quantifying the perceived difficulty of learning English as a second or foreign language from the perspective of speakers of other

languages. Absent such a measure, guidelines used by the Foreign Service Institute (FSI) for estimating the difficulty of learning a foreign language, measured in number of weeks of language training required for a native English speaker to reach a stated level of proficiency in languages taught at the institute, was used as a proxy. As indicated in Table 16, the FSI matrix divides the world's languages into three levels of difficulty.

Table 16

***Foreign Service Institute language categories***

Language "categories"	Weeks to achieve Goal	Class hours to achieve goal
Category I: (World) Languages closely cognate with English. French, Italian, Portuguese, Romanian, Spanish, Swedish, Dutch, Norwegian, Afrikaans, etc.	23-24	575-600
Category II: (Hard) Languages with significant linguistic and/or cultural differences from English, e.g., Albanian, Amharic, Azerbaijani, Bulgarian, Finnish, Greek, Hebrew, Hindi, Hungarian, Icelandic, Khmer, Latvian, Nepali, Polish, Russian, Serbian, Tagalog, Thai, Turkish, Urdu, Vietnamese, Zulu, etc.	44	1100
Category III: (Superhard) Languages which are exceptionally difficult for native English speakers: Arabic, Chinese, Japanese, and Korean	88 (2 <sup>nd</sup> year may be in the country)	2200
Other languages: Good language learners typically require at least 30 weeks (750 class hours) to achieve a 3/3 from zero in German; learners of Indonesian, Malay and Swahili require 36 weeks (900 class hours).		

Source: U.S. Department of State. (2004). *Language Continuum*. School of Language Studies, Foreign Service Institute, p. 45.

While the FSI typology provides a useful insight into how language distance is gauged by an institution serving a highly educated population whose members have demonstrated a strong aptitude for language learning, its value may be limited in other contexts. An obvious, major limitation of the FSI typology for purposes of the present

study is an implied reciprocal level of difficulty between other languages of the world and English that in fact may not exist. That is, while Chinese might be perceived as a “superhard” L2 for a native English speaker, one cannot assume that L2 English would be perceived as equally difficult by a native Chinese speaker. Nonetheless, as an exploratory effort each study participant was assigned an FSI “language distance” category (I, II, or III) corresponding to his or her L1, and the possible influence of this variable on other variables in the study was investigated via a series of cross-tabulation and correlation procedures. No clear, consistent patterns emerged from these tests; furthermore, the relatively small number of Generation 1.5 participants resulted in unacceptable numbers of empty cells in cross tabulations, which consequently rendered tests of statistical significance moot.

As a heuristic approach to ordering the data, Table 16 presents the results from two cross tabulations using data for the whole sample, (i.e., both Generation 1.5 and foreign-educated participants combined). In the whole sample, 10 percent of the participants spoke a language in FSI’s Category I, 58 percent a language in Category II, and 32 percent a language in Category III. Although of questionable validity, the results presented in Table 17 are nevertheless plausible and point to the potential value of more rigorous study of the language distance construct within the context of Generation 1.5 research.

Table 17

***Responses to personal inventory Items 13 and 14 cross-tabulated with language category (as a proxy for level of difficulty)***

Q13. Which do you consider the stronger of your languages for college-level <i>reading</i> ?	LANGUAGE CATEGORY		
	I	II	III
English	36.4%	44.3%	11.8%
My native language (L1)	63.6%	50.8%	70.6%
A language other than English or my L1	0.0%	4.9%	17.6%
Total	100.0%	100.0%	100.0%

Q14. Which do you consider the stronger of your languages for college-level <i>writing</i> ?	LANGUAGE CATEGORY		
	I	II	III
English	18.2%	40.3%	29.7%
My native language (L1)	81.8%	56.5%	62.2%
A language other than English or my L1	0.0%	3.2%	8.1%
Total	100.0%	100.0%	100.0%

Note that for Item 14, preference for native language for writing decreases as distance from L2 increases. For Item 13, however, the relationship is more “U” shaped.

## Summary

Despite their comparatively lower pass rate for the course, Generation 1.5 participants demonstrated a clear advantage over their foreign-educated classmates on vocabulary and linguistic variables addressed in Research Question 1, scoring significantly higher on all three components of the Accuplacer Levels of English Proficiency and on a test of Academic Idioms. On demographic variables the two groups were very similar, especially within the subsample of traditional college-aged students (that is, aged 27 and younger).

On measures of reading performance, perceived efficacy as second-language readers, and use of reading strategies (Research Question 2) differences between the two groups were less striking. Generation 1.5 students appeared to be somewhat more confident of their command of L2 English literacy. In contrast to their EFL-educated classmates, they relied more heavily on Problem Solving than Support reading strategies, perhaps demonstrating a higher level of metacognitive awareness. For non-Generation 1.5 participants, results from the Survey of Reading Strategies pointed toward greater reliance on mental translation and dictionary use than indicated by Generation 1.5 participants.

Generation 1.5 study participants appeared to be somewhat less engaged readers than their foreign-educated classmates (Research Question 3), but differences on most measures related to reading attitudes and habits were small. Both groups favored books published in their native language, both expressed preferences non-print over print media, and both indicated a strong preference for the internet as their favored source of news and information.

Overall, findings from this study of 118 post-secondary ESL bilinguals support the argument that Generation 1.5 students constitute a distinct population of language learners whose language resources and support needs differ in important respects from those of non-Generation 1.5 students. The findings also suggest that Generation 1.5 students have at their disposal ample funds of language and cultural knowledge to support advanced second-language literacy development through the medium of reading.

The implications of these findings for placement, instruction, and further research are addressed in Chapter 5.

## CHAPTER FIVE

Major “take-aways” from this study are the affirmation, by means of a variety of quantitative measures, that Generation 1.5 bilinguals constitute a distinct population of second-language learners/users with access to distinct linguistic skills and resources; that the supposed advantages they bring to post-secondary language learning and literacy development by virtue of their prolonged contact with English and American culture are not, in and of themselves, sufficient to guarantee academic success; and that their heavy reliance on near-native oral language proficiency may contribute to an undervaluing of reading as a means of advancing language and literacy development.

Grounded in Bernhardt’s compensatory model of second-language reading, an underlying assumption of this study has been that Generation 1.5 L2 English bilingual students bring to the task of developing the higher-level literacy skills needed to succeed in college a substantial arsenal of language and reading-related tools. Study results point to a Generation 1.5 advantage in areas such as vocabulary breadth and depth, knowledge of English syntax, and oral communication. Compared to their L2-English bilingual classmates who received their K-12 education outside of the United States, Generation 1.5 students in this study also demonstrated a somewhat higher level of confidence in their ability to function in an English-language post-secondary environment and to construct meaning from what Bernhardt (2011) refers to as “highly nuanced upper-

register texts” (p. 15). These strengths, however, interact with, and in some cases may be offset by, other factors such as engagement, content and domain knowledge, and motivation – factors included under the rubric of unexplained variance in Bernhardt’s (2011) graphic portrayal of her compensatory model of second-language reading (revised).

Despite their apparent edge in some areas of language and reading proficiency, Generation 1.5 participants in this study were less likely than their foreign-educated classmates to successfully complete the course and more apt to express dissatisfaction with their placement in the Level 4 ESL reading course or even in the ESL program at all. Recall further, as reported in Chapter 4, nearly one-third of the Generation 1.5 study participants cited “lack of interest” as a major obstacle to understanding college-level texts in English. Together, these findings are symptomatic of the lack of sustained engagement often reported in the Generation 1.5 literature reviewed in Chapter 2 (e.g., Leki, 1999; Leki, 2007) and cited later in this chapter (Kanno & Grosik, 2012). They also reflect the inherent difficulty of reading in a second language highlighted in the L2 reading research.

### **Engagement and the long-term effectiveness of ESL instruction**

Non-print media, and in some respects the internet, play to the strengths of Generation 1.5 L2 English bilinguals and provide alternative, comparatively pain-free means of interacting with the information-rich world in which they live. Support for this understanding derives from Generation 1.5 research emphasizing the native-like oral language skills of Generation 1.5 bilinguals (reviewed in Chapter 2) combined with

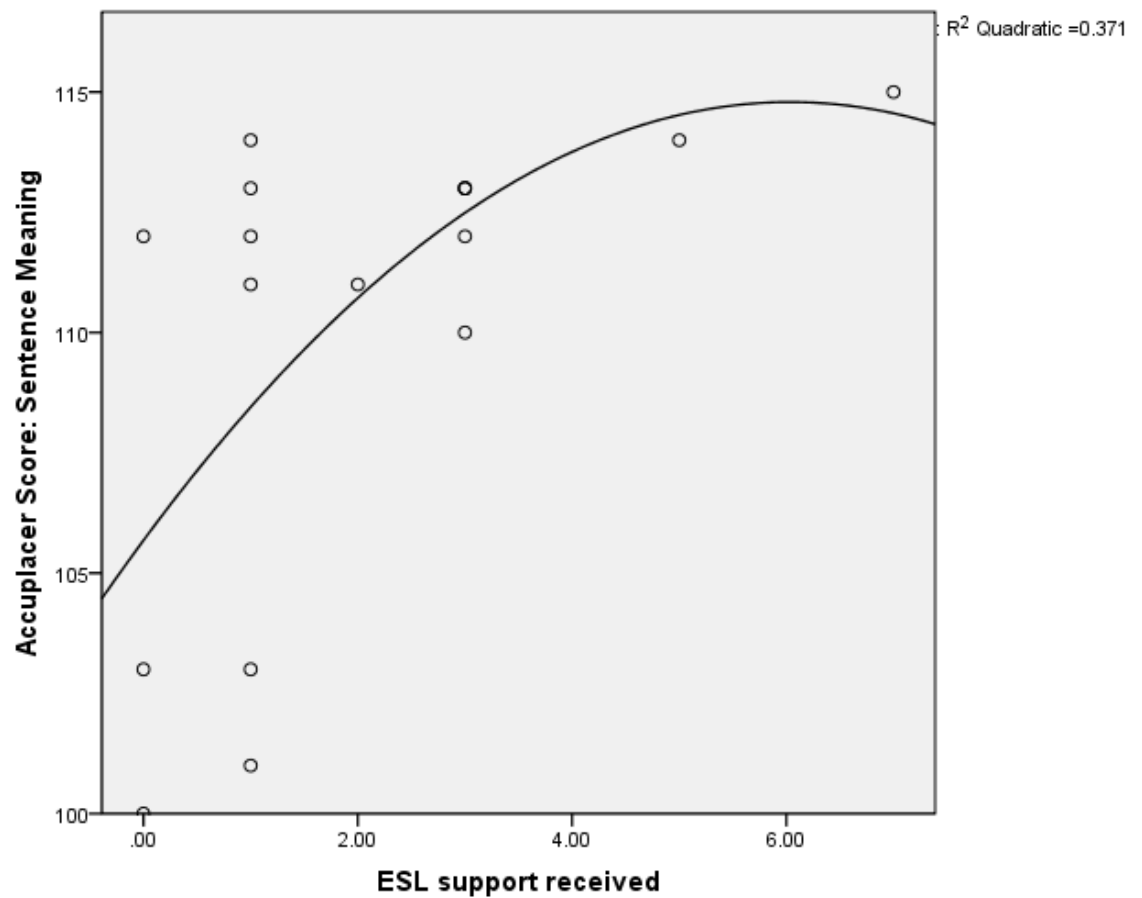


evidence from the present study of a strong preference for non-print media reported by Generation 1.5 participants. As a result, Generation 1.5 students may undervalue the importance of reading to the continued development of language, literacy and content knowledge and view the considerable psychic effort required to process cognitively demanding, context-reduced texts that are the staple of post-secondary education as incommensurate with the perceived rewards. This may be particularly true for Generation 1.5 English learners enrolled in required ESL programs that do not count toward the fulfillment of certificate or degree requirements, as is the case at Northern Virginia Community College (NOVA).

Evidence supporting the above conjecture is provided in Kanno and Grosik's (2012) analysis of two data sets derived from interviews with L2-English bilingual students enrolled in two major public universities. While not identified as Generation 1.5 students per se, Kanno and Grosik's study participants were long-term immigrant and refugee students, that is, not international students studying on student visas. In one setting, similar to that at NOVA, language support consisted of a series of up to five non-credit ESL courses. In the second setting language support was provided via special, credit-bearing ESL sections of first-year courses in academic reading and writing. Kanno and Grosik reported that "an overwhelming majority of the students" in the first setting "resented being placed in the [college's] Academic English ESL program and focused on trying to test out of the program as fast as possible or passing the required courses with minimal effort" (p. 140). By contrast, the students who received language support

through special ESL sections of credit-bearing first-year English courses were “overwhelmingly positive about their ESL courses” p. 141.

Perceived return on investment may be one manifestation of what might constitute a ceiling effect on intensive ESL instruction as increasingly greater effort is required to produce continuing gains in language and literacy development. In a study focused on high school ESL placement, Callahan and Shifrer (2012) found “an inverse relationship between English proficiency and [academic] achievement” among long-term ESL students (p. 26), positing that “retention in ESL programs may ultimately atrophy linguistic minority students’ academic development” (p. 30). While the scope and focus of the research reported by Callahan and Shifrer differed materially from that of the present study, parallel evidence of a possible ceiling effect in the present study emerged when number of years of K-12 ESL support received was correlated with scores on the sentence-meaning component of the Accuplacer Levels of English Proficiency. A quadratic curve fitted to the data points in a scatterplot (Figure 2) suggests that, at least for Generation 1.5 participants in this study, the added value of ESL support leveled off after approximately five years and may have peaked closer to two years.



*Figure 3.* Years of ESL support correlated with Accuplacer Sentence Meaning Score

The pattern shown in Figure 2 was not observed, or was less pronounced, in other correlations, possibly because of the small sample size. Further quantitative research drawing on larger samples of post-secondary Generation 1.5 L2 English bilinguals is needed to test the hypothesized diminishing return on value added by college ESL instruction for this particular population. While psycholinguistic research, including brain-based studies of language, may eventually reveal underlying cognitive processes that could account for a pattern such as that presented in Figure 2, more immediate

explanations already may be inferred from published research in sociolinguistics, which highlights the social and communicative aspects of language learning. (For summary treatments of sociolinguistic approaches to SLA research, see Atkinson, 2011; Davis, Ovando, & Minami, 2013; and Mitchell and Myles, 2004.)

From both published research reviewed in Chapter 2 and findings from this study reported in Chapter 4, an argument can be made that sustained engagement is pivotal in advanced language learning and literacy development. Additional research is needed, however, to document manifestations of engagement (or disengagement) among Generation 1.5 L2 English bilinguals enrolled in post-secondary ESL programs and to identify options available to educators to promote engagement in this population. Illustrative engagement related behavior categories suggested by Krathwohl, Bloom, and Masia's (1964) *Taxonomy of Educational Objectives* include attending, responding, valuing, and commitment. In addition to data on course outcomes employed in this study, direct measures of engagement might include such indices as attendance, assignment completion, scores on summative assessments, self-reported motivation, and course evaluations submitted by students.

### **Implications for Research**

Throughout this and preceding chapters, gaps in the Generation 1.5 knowledge base and implications for future research growing out of the present study have been highlighted within the context of specific topics selected for investigation as these topics have been addressed. Together, these highlighted opportunities for future research point towards the need for an expanded repertoire of research designs, studies that span the

whole K-16 Generation 1.5 experience, comparisons of Generation 1.5 language and literacy proficiency with proficiency levels of advanced language learners and native speakers in a variety of academic settings, efforts to operationalize and measure the influence of language distance on language learning and literacy development, and brain-based studies focused on the persistence of error patterns often present in the productive language of Generation 1.5 bilinguals. Illustrative possibilities in each of these areas are presented briefly in the paragraphs that follow.

**Expanding the repertoire of methodologies and topics.** As noted in earlier chapters of this study, the Generation 1.5 knowledge base rests disproportionately on small-scale, qualitative studies focused on composition. Needed are more quantitative and mixed-methods studies that explore the reading-writing relationship and feature a broader range of research methodologies including corpus analysis, experiments, and quasi-experiments as well as interviews with targeted study participants to learn more about individual differences within the Generation 1.5 population and emic perspectives of the Generation 1.5 experience.

**The K-16 vertical dialogue.** As the surge in Generation 1.5 English learners/speakers observed in K-12 classrooms in the 1990s has worked its way through the educational system, increasingly greater attention has been given to the language-related needs of this now-adult population in post-secondary settings. Paralleling this widening perspective of the Generation 1.5 population has been a growing awareness of the long-term impact of both language and academic preparation at the K-12 level on

later performance at the post-secondary level. Yet, as Roberge (2009) noted, there has generally been a disconnect between K-12 and postsecondary SLA scholarship.

Studies included in Kanno and Harklau's (2012) edited volume on linguistic minority students in college reiterate related themes addressed in Cummins (1981a) and Thomas and Collier (2001) regarding the link between K-12 academic preparation, which often is compromised by the demands of second-language learning, and later college success. While these and a handful of similar studies (for example, Harklau, 2001) provide holistic perspectives of the K-16 second language learning experience, there is a need for more studies that bridge the gap between K-12 Generation 1.5 SLA scholarship and post-secondary Generation 1.5 SLA scholarship. Especially needed are quantitative and mixed-methods studies focused on the transition from secondary to post-secondary education, including studies comparing Generation 1.5 students in community colleges to those enrolled in four-year institutions.

**Comparisons with more diverse language-learner populations.** In studies comparing post-secondary Generation 1.5 bilinguals to other populations of language learners/users, the comparison is typically to fully-proficient or near-proficient (developmental) monolingual native English speakers or, as in the present study, to non-native English speakers whose K-12 education occurred in a language other than English. Another potentially useful comparison may be between Generation 1.5 L2 English bilinguals and demographically comparable L2 English bilinguals educated in English medium schools in countries in which English is not widely used. Through such studies it

might be possible to isolate and better understand the contributions of culture and daily L2 English use to the development of advanced L2 language and literacy.

**Brain-based studies of L2 learning and L2 reading.** Language has long been a focus in brain research and in studies of cognition grounded in psycholinguistics; however, apparently little attention has been paid in these fields specifically to subjects whose linguistic and literacy development bridge multiple languages and cultures, as in the case of Generation 1.5 L2 English bilinguals. Greater knowledge of the brain and of cognitive processes involved in language production may be key to understanding the persistence of error patterns manifest in the productive language of many advanced L2 English bilinguals as well as the phenomenon referred to as fossilization by Han and Odlin (2006) and Han and Selinker (2005).

### **Implications for placement and pedagogy**

The challenge of providing engaging language support to adult, post-secondary Generation 1.5 L2 English bilinguals entails, in the first instance, placing them into instructional programs that take into account both the assessed and the self-ascribed assets these students bring to advanced language learning and literacy development by virtue of their extended contact with American culture and language. Consistent with the research reviewed in Chapter 2, findings from this study reveal a strong identity with English and American culture that in many respects is closer to that of native English speakers than to that of L2 English bilinguals whose K-12 experience exposed them to English as a foreign language and whose first-hand knowledge of American culture is typically less extensive. While not all Generation 1.5 L2 English bilinguals can be

described as English dominant, and certainly not across all domains, many obviously do not perceive their language support needs as remedial (Kanno & Grosik, 2012; Marshall, 2010; Oudenhoven, 2006; Roberge, 2009). For these students, alternative placements may foster greater buy-in and thus lead to better long-term results than typical post-secondary ESL programs whose perceived purpose, if not stated mission, is remediation.

In December 2012, coincident with the conclusion of this study, a coalition of four higher education organizations issued a joint statement articulating seven “core principles for transforming remedial education” (Charles A. Dana Center, Complete College America, Inc., Education Commission of the States, & Jobs for the Future, 2012). Among other recommendations, the coalition called for default placement into “gateway college-level course(s)” for “many more students” and for the integration of academic support, such as ESL support, into “college-level course content -- as a co-requisite, not a pre-requisite” (p. 6). While not unprecedented (Kanno & Grosik, 2012; Murie & Fitzpatrick, 2009), such measures may find growing acceptance in the current political and economic climate given the increasing number of language minority students in higher education and mounting public pressure on colleges and universities to hold down costs. This may be especially true for community colleges, which serve as the point of entry to higher education for a disproportionate share of language minority students (Kanno & Harklau, 2012; Rodriguez & Cruz, 2009). In the case of NOVA, existing course offerings (English 111 coupled with English Fundamentals 3) may already provide a framework for transforming ESL instruction from remediation to co-



requisite for many English-dominant Generation 1.5 students presently placed in Level 4 or 5 ESL reading and composition courses.

In practice, implementation of recommendations called for in the joint statement of principles might take the form of the integrated-ESL-support model described in Kanno and Grosik (2012). For NOVA and the 22 other institutions under the umbrella of the Virginia Community College System (VCCS), a precedent already has been established through a system-wide redesign of developmental English course offerings and simultaneous replacement of the Compass diagnostic assessment with an instrument developed by VCCS. Patterned on an earlier VCCS-mandated redesign of developmental math courses, this program was fully implemented in the spring of 2013. The NOVA developmental English redesign was piloted during the fall of 2012, and initial results were considered positive.

Still to be evaluated, however, is the impact on student learning outcomes of placing larger numbers of students directly into “gateway” first-year English courses. For NOVA, follow-on evaluation of both components of its developmental English transformation undoubtedly will influence consideration of any parallel initiative to move larger numbers of English-dominant Generation 1.5 students directly into first-year college English. The results of this evaluation may have important implications for community colleges serving similar populations and facing similar policy decisions across the nation.

As indicated in Chapter 2, placement decisions in post-secondary ESL programs often boil down to a single, high-stakes writing sample (Frodesen & Starna, 1999),

perhaps evaluated by a single ESL instructor. For all L2 English bilinguals, but especially Generation 1.5 English learners/speakers, this practice undervalues the extent to which language, literacy, and cultural capital can work together to support continued language learning and literacy development. Further research is needed to support the development of more comprehensive approaches to assessing the resources Generation 1.5 L2 English bilinguals bring to language learning and literacy and the manner in which these resources may be tapped to compensate for weaknesses perceived as requiring remediation.

Even with more sophisticated screening and placement procedures in place, ESL coursework will continue to be the appropriate placement for many post-secondary Generation 1.5 L2 English bilinguals. Hence, the challenge of providing more engaging language support to post-secondary Generation 1.5 L2 English bilinguals will also entail structuring ESL curricula and instruction to capitalize on the strengths identified in this study that these students bring to the task of continued language learning and second-language literacy development. As previous Generation 1.5 research has suggested, a starting point might be identifying ways to use oracy as a bridge to literacy, such as experiential activities in which students working in small groups draw on conversational skills in the shared construction of meaning from challenging, higher order texts. ESL courses linked to core courses in specific disciplines (e.g., STEM-oriented ESL reading and composition courses) might also offer opportunities for promoting buy-in.

In ESL programs that support language and literacy development through separate, even if paired, reading and writing courses, as is the case at NOVA, integrating

language/literacy instruction may provide yet another means of enriching the ESL experience (Allison, 2009), and hence stimulating engagement. As argued in Chapter 1, reading and writing are two sides of the same coin. By separating reading and writing instruction, ESL curricula may unwittingly marginalize reading, reinforcing the impression that writing is to be feared and reading is irrelevant. Reading, it may be argued, becomes relevant when it is instrumental to the fulfillment of a writing task, and it becomes engaging when it is interesting. Perhaps the most convincing rationale for integrating reading and writing instruction, however, is captured in Smith's (1994) argument that "knowledge of the conventions of writing can only come from reading" (p. 195).

### **Concluding thoughts**

In the aggregate, data from the present study affirm the existence of a language learner identity closely resembling that first described by Rumbaut and Ima (1988) as "Generation 1.5" and subsequently elaborated by others over the course of 25 years of SLA research reflecting both etic and emic perspectives. While future research may find that features of this identity extend to other populations of post-secondary L2 English bilinguals, such as bilinguals educated in English-medium schools in non-English speaking countries or the U.S.-born heritage speakers identified by Valdés (2000, 2005), findings from this study corroborate Rumbaut and Ima's central argument that members of Generation 1.5 "share a common psychohistorical location" (pp. 1-2) and that the Generation 1.5 experience influences the manner in which "1.5-ers" (Rumbaut & Ima, 1988, pp. 1-2) approach advanced language learning, including the language-related

domains of reading and writing; hence, this study concludes that the Generation 1.5 metaphor continues to serve a useful function.

There is, of course, a risk associated with the use of profiles and labels, including that of Generation 1.5. As the second generation of Generation 1.5 research evolves, one challenge facing researchers and educators will be to ensure that the insights gleaned from this line of research are used not to pigeon-hole a growing population of post-secondary L2 English bilinguals, but instead to sensitize instructors and administrators to the unique needs of this segment of adult language learners and to inform our efforts to better serve them.

## **APPENDIX**

- A. Personal Inventory: Form A
- B. Personal Inventory: Form B
- C. X-Lex Vocabulary Test (Form B)
- D. Revised University Word Level Test Form B
- E. Idiomatic Expressions in Academic English
- F. Survey of Reading Strategies (SORS)
- G. Presentation Script
- H. Informed Consent Form

## APPENDIX A: PERSONAL INVENTORY FORM A

### Personal Inventory: Form A

#### Section I: Student Identification

Name:	Country of birth:	NOVA ID #:
Sex: <input type="checkbox"/> Female <input type="checkbox"/> Male	Native language(s):	Campus: <input type="checkbox"/> Annandale <input type="checkbox"/> Manassas

Are you an international student studying in the United States on a student visa? ☐ Yes ☐ No

#### Section II: Educational Background

1. Where did you graduate from high school?

☐ I did not graduate from high school or I have a GED certificate ☐ In my home country or another country (not the United States) ☐ In the United States

2. What is the name of the last high school you attended?

3. As a student in grade school or high school – in the United States, in your home country, or in another country – were there ever any long periods of time when you did not attend school? (Examples include time away from school for extended travel to your home country or another country; time spent in a refugee camp or in a country in which schooling was not available due to war, political instability, or natural disaster; breaks in schooling because of frequent moves resulting in changes of schools. Please explain.)

**Section II: Educational Background** (Complete this section only if you graduated from high school in the United States or received most of your grade school or high school education in the United States. If you were educated mostly in another country, please ask for Form B.)

4. How long have you lived in the United States?

5. How old were you when you moved to the United States?

6. What grade were you in when you started school in the United States?

7. In what grades, if any did you attend ESL classes? (Please circle each grade level in which you attended ESL classes or check the box that says "I did not have ESL classes as a student in the U.S.")

I attended ESL classes in the following grades:

1      2      3      4      5      6      7      8      9      10      11      12

☐ I did not have ESL classes as a student in the U.S.

### Section III: Transition to College (Note: Item Numbers 8 and 9 intentionally skipped.)

10. If you graduated from high school in the United States, how well do you think you were prepared to take college-level courses in English? (Note: If you did not graduate from high school, skip to Question 11.)

- ☐ Very prepared      ☐ Prepared      ☐ Somewhat prepared      ☐ Not prepared

11. You were placed in this course based on your score on the Accuplacer placement test. Do you think this was a good placement? That is, do you think this is the right course for you given your present level of knowledge of the English language?

☐ Yes      ☐ No

12. If you answered "No" to Question 11, what do you think would have been a better, more appropriate placement for you? (Note: If you answered "Yes" to Question 11, skip to Question 13.)

13. Which do you consider the stronger of your languages for college-level reading?

- ☐ English    ☐ My native (or home) language    ☐ A language other than English or my native language

14. Which do you consider the stronger of your languages for college-level writing?

- ☐ English    ☐ My native (or home) language    ☐ A language other than English or my native language

### Section IV: Reading Skills and Preferences

Items 15 through 22 ask you to estimate how well you can read when the text is in English. Respond to each statement by circling "Yes" or "No" as appropriate. If you are uncertain about your ability to read at the level indicated, or if you do not understand an item, circle "Not Sure."

15. I can understand the main idea and some details of clearly organized, short, straightforward texts about places, people, and events that I am familiar with.

Yes    No    Not Sure

16. I can usually read and understand reports about current and past events in a major daily newspaper such as *The Washington Post* or a news magazine such as *Time* or *Newsweek* with little or no use of a dictionary.

Yes    No    Not Sure

17. In reading a newspaper or magazine that contains editorial or opinion content, I can "read between the lines" and understand meanings that are not directly stated.

Yes    No    Not Sure

18. I can understand the main ideas and important details of almost all material written in English within my particular professional field or area of primary interest (for example, reports, analyses, letters, arguments, etc.) with little or no use of a dictionary.

Yes    No    Not Sure

19. I am able to read fluently and accurately all styles and forms of English related to my professional needs or personal interest without reference to a dictionary.

Yes    No    Not Sure



20. I can understand long and complex analyses, factual reports, and literary texts (that is, short stories and full-length novels).	Yes	No	Not Sure
21. I can understand both the meaning and the intent of most uses of idioms, cultural references, word play, sarcasm, and irony in even highly abstract and culturally "loaded" texts.	Yes	No	Not Sure
22. I can read virtually all forms of written English, including abstract, linguistically complex texts such as specialized articles, essays and literary works, including literary works from earlier periods recognized as masterpieces.	Yes	No	Not Sure

23. Which of the following do you consider the *single* biggest obstacle to understanding college-level texts written in English? (Please select only one response.)

- ☐ Vocabulary
- ☐ The way English sentences are constructed
- ☐ Not having enough background knowledge about the topics discussed in the text
- ☐ Lack of interest in the topics discussed in the text
- ☐ Understanding slang and references to events, people, and customs that require knowledge of American culture

24. When you need a dictionary to help you understand something you are reading in English, which of the following are you most likely to use? (Please select only one response.)

- ☐ A print, bilingual (English to or from another language) dictionary
- ☐ A print, monolingual (English only) dictionary
- ☐ A handheld, electronic bilingual (English to or from another language) dictionary
- ☐ An online, bilingual (English to or from another language) dictionary
- ☐ An online, monolingual (English only) dictionary

Directions: In Questions 25 through 32, place a check mark (✓) in the column that best describes your opinion.

5 = Strongly Agree	4 = Agree	3= Not Sure or no Opinion	2 = Disagree	1 = Strongly Disagree	
	5	4	3	2	1
25. I enjoy reading in my spare time.					
26. In order to write well, one must also be able to read well.					
27. Reading is less important today than it was in my parents' generation.					
28. I feel totally comfortable and confident in an American college classroom.					
29. I am concerned that I might not be able to keep up with the quantity of reading assigned by my college professors.					
30. It is possible for a nonnative English speaker to <u>read</u> English as well as a native speaker.					
31. It is possible for a nonnative English speaker to <u>write</u> English as well as a native speaker.					



	5	4	3	2	1
32 Knowing two (or more) languages and understanding American culture will improve my chances of getting a good job after I finish my college studies.					

33. How do you get most of your news about national and international issues of interest to you?

- ☐ English language newspapers
- ☐ Newspapers in my native language
  
- ☐ English language magazines
- ☐ Magazines in my native language
  
- ☐ English language radio
- ☐ Radio in my native language
  
- ☐ English language television (over-the-air, cable, or satellite)
- ☐ Television in my native language (over-the-air, cable, or satellite)
  
- ☐ English language internet sites
- ☐ Internet sites in my native language

34. During the past 12 months, about how many books did you read (either all or part of the way through)? Do not count books you were assigned to read for school or had to read for work. Please include any print, electronic, or audiobooks you may have read or listened to.

The number of books I read in English

The number of books I read in my native language

Questions 15 through 22 adapted from Interagency Language Roundtable (n.d.). Self-assessment of reading proficiency. Retrieved from <http://www.govtllr.org/Skills/readingassessment.pdf>.

## APPENDIX B: PERSONAL INVENTORY FORM B

### Personal Inventory: Form B

#### Section I: Student Identification

Name:	Country of birth:	NOVA ID #:
Sex: <input type="checkbox"/> Female <input type="checkbox"/> Male	Native language(s):	Campus: <input type="checkbox"/> Annandale <input type="checkbox"/> Manassas

Are you an international student studying in the United States on a student visa? ☐ Yes ☐ No

#### Section II: Educational Background

1. Where did you graduate from high school?

☐ I did not graduate from high school or I have a GED certificate ☐ In my home country or another country (not the United States) ☐ In the United States

2. What is the name of the last high school you attended?

3. As a student in grade school or high school – in the United States, in your home country, or in another country – were there ever any long periods of time when you did not attend school? (Examples include time away from school for extended travel to your home country or another country; time spent in a refugee camp or in a country in which schooling was not available due to war, political instability, or natural disaster; breaks in schooling because of frequent moves resulting in changes of schools. Please explain.)

**Section II: Educational Background** (Complete this section only if you graduated from high school, or received most of your grade school or high school education, in your home country or in another country. If you were educated mostly in the United States, please ask for Form A.)

4. Before you came to the United States, did you study English in your home country or in another country? ☐ Yes ☐ No

5. How old were you when you first started to learn English (either in school or informally at home, through friends, in a social or religious organization, at work, etc.)?

Age:

6. Did you attend an English-language school in your home country or another country? (Note: An English language school is a public or private school in which all or most classes are taught in English.)

☐ Yes ☐ No

7. If you answered “yes” to Question 6, please indicate the grades in which you attended an English-language school. Circle each grade level in which you attended an English-language school or check the box that says “I did not attend an English-language school in my home country or another country.”)

I attended an English-language school in the following grades:

1      2      3      4      5      6      7      8      9      10      11      12

☐ I did not attend an English-language school in my home country or another country.

8. Did you graduate from an English-language high school in your home country or another country? ☐ Yes ☐ No

9. Before you came to the United States, did you attend college or complete a college degree in your home country or in another country? ☐ Yes ☐ No

### Section III: Transition to College

10. If you graduated from an English-language high school in your home country or another country, how well do you think you were prepared to take college-level courses in English? (Note: If you did not graduate from an English-language school outside of the United States, skip to Question 11.)

☐ Very prepared      ☐ Prepared      ☐ Somewhat prepared      ☐ Not prepared

11. You were placed in this course based on your score on the Accuplacer placement test. Do you think this was a good placement? That is, do you think this is the right course for you given your present level of knowledge of the English language? ☐ Yes ☐ No

12. If you answered “No” to Question 11, what do you think would have been a better, more appropriate placement for you? (Note: If you answered “Yes” to Question 11, skip to Question 13.)

13. Which do you consider the stronger of your languages for college-level reading?

☐ English    ☐ My native (or home) language    ☐ A language other than English or my native language

14. Which do you consider the stronger of your languages for college-level writing?

☐ English    ☐ My native (or home) language    ☐ A language other than English or my native language



## Section IV: Reading Skills and Preferences

Items 15 through 22 ask you to estimate how well you can read when the text is in English. Respond to each statement by circling “Yes” or “No” as appropriate. If you are uncertain about your ability to read at the level indicated, or if you do not understand an item, circle “Not Sure.”

15. I can understand the main idea and some details of clearly organized, short, straightforward texts about places, people, and events that I am familiar with.	Yes	No	Not Sure
16. I can usually read and understand reports about current and past events in a major daily newspaper such as <i>The Washington Post</i> or a news magazine such as <i>Time</i> or <i>Newsweek</i> with little or no use of a dictionary.	Yes	No	Not Sure
17. In reading a newspaper or magazine that contains editorial or opinion content, I can “read between the lines” and understand meanings that are not directly stated.	Yes	No	Not Sure
18. I can understand the main ideas and important details of almost all material written in English within my particular professional field or area of primary interest (for example, reports, analyses, letters, arguments, etc.) with little or no use of a dictionary.	Yes	No	Not Sure
19. I am able to read fluently and accurately all styles and forms of English related to my professional needs or personal interest without reference to a dictionary.	Yes	No	Not Sure
20. I can understand long and complex analyses, factual reports, and literary texts (that is, short stories and full-length novels).	Yes	No	Not Sure
21. I can understand both the meaning and the intent of most uses of idioms, cultural references, word play, sarcasm, and irony in even highly abstract and culturally “loaded” texts.	Yes	No	Not Sure
22. I can read virtually all forms of written English, including abstract, linguistically complex texts such as specialized articles, essays and literary works, including literary works from earlier periods recognized as masterpieces.	Yes	No	Not Sure

23. Which of the following do you consider the *single* biggest obstacle to understanding college-level texts written in English? (Please select only one response.)

- ☐ Vocabulary
- ☐ The way English sentences are constructed
- ☐ Not having enough background knowledge about the topics discussed in the text
- ☐ Lack of interest in the topics discussed in the text
- ☐ Understanding slang and references to events, people, and customs that require knowledge of American culture

24. When you need a dictionary to help you understand something you are reading in English, which of the following are you most likely to use? (Please select only one response.)

- ☐ A print, bilingual (English to or from another language) dictionary
- ☐ A print, monolingual (English only) dictionary
- ☐ A handheld, electronic bilingual (English to or from another language) dictionary
- ☐ An online, bilingual (English to or from another language) dictionary
- ☐ An online, monolingual (English only) dictionary

5 = Strongly Agree	4 = Agree	3 = Not Sure or no Opinion	2 = Disagree	1 = Strongly Disagree
25. I enjoy reading in my spare time.				
26. In order to write well, one must also be able to read well.				
27. Reading is less important today than it was in my parents' generation.				
28. I feel totally comfortable and confident in an American college classroom.				
29. I am concerned that I might not be able to keep up with the quantity of reading assigned by my college professors.				
30. It is possible for a nonnative English speaker to <u>read</u> English as well as a native speaker.				
31. It is possible for a nonnative English speaker to <u>write</u> English as well as a native speaker.				
32. Knowing two (or more) languages and understanding American culture will improve my chances of getting a good job after I finish my college studies.				

- ☐ English language newspapers
- ☐ Newspapers in my native language
- ☐ English language magazines
- ☐ Magazines in my native language
- ☐ English language radio
- ☐ Radio in my native language
- ☐ English language television (over-the-air, cable, or satellite)
- ☐ Television in my native language (over-the-air, cable, or satellite)
- ☐ English language internet sites
- ☐ Internet sites in my native language

The number of books I read in English

The number of books I read in my native language

155

## APPENDIX C: X-LEX VOCABULARY TEST (FORM B)

### X-Lex Vocabulary Test (Form B)

Instructions: Working either row-by-row or column-by-column, look carefully at each word. Some of these words are real English words and some are invented but are made to look like real words. Please place a checkmark (✓) next to each word that you know or can use. Here is an example

✓ dog

meet	native	industry	worry	instant	rot
mosquito	gorman	postherent	screen	goat	wet
cord	little	turn	stillhard	squeeze	girl
wire	faint	serve	excite	cordonise	varney
castle	boy	interval	wife	troake	wedge
sake	word	you	widgery	take	relation
position	astell	pan	grass	dip	murrow
network	sneeze	recommend	person	envelope	frank
waggett	display	overlook	previous	sum	which
plenty	moffant	climb	govern	chicorate	just
style	wrong	steady	gallimore	callisthemia	reference
dial	upset	proceed	open	leadership	manly
dozen	bring	main	warboy	odd	cap
perform	interest	eckett	surman	sleeve	artificial
low	trudgeon	simplicity	educate	enigmatic	system
collar	rabbit	liner	manager	frequent	enclose
drag	opponent	forwards	flag	inertible	nurse
overcome	audience	border	troublesome	quality	prepare
skemp	fog	had	prepare	knowledge	steam
miserable	property	pat	thick	vain	combine

Adapted from Milton, J. (2009). *Measuring second language vocabulary acquisition*. Buffalo, NY: Multilingual Matters.

## APPENDIX D: REVISED UNIVERSITY WORD LEVEL TEST FORM B

### *Revised University Word Level Test Form B*

This test is measure of your knowledge of general academic words. The words in Column 2 were selected from a list of 800 words considered useful for learners in secondary schools, colleges and universities, and technical institutes. Column 1 contains synonyms for some of these words. For each “definition” in Column 1, enter the letter of the word in Column 2 to which it corresponds. You have 30 minutes to complete the test.

- |   |               |
|---|---------------|
| 1. ____ theory                                      | a. precision  |
| 2. ____ one event in a series                       | b. episode    |
| 3. ____ large area                                  | c. axis       |
|   | d. hypothesis |
|   | e. magnitude  |
|   | f. region     |
| 4. ____ single example or case                      | a. instance   |
| 5. ____ agreement or permission                     | b. geometry   |
| 6. ____ study of angles and shapes                  | c. consent    |
|   | d. notion     |
|   | e. symptom    |
|   | f. strata     |
| 7. ____ hospital                                    | a. text       |
| 8. ____ written material                            | b. motive     |
| 9. ____ reason for doing something                  | c. clinic     |
|   | d. economy    |
|   | e. incident   |
|   | f. tangent    |
| 10. ____ careful study to discover new information  | a. momentum   |
| 11. ____ government by all people in a country      | b. role       |
|   | c. research   |
|   | d. democracy  |
| 12. ____ piece of work that needs time and planning | e. portion    |
|   | f. project    |



- |   |                 |
|---|-----------------|
| 15. _____ time of great difficulty and danger   | c. frontier     |
|   | d. crisis       |
|   | e. sequence     |
|   | f. oxygen       |
| 16. _____ add to                                | a. coincide     |
| 17. _____ change in order to correct or improve | b. ensure       |
|   | c. revise       |
| 18. _____ make certain                          | d. deprive      |
|   | e. supplement   |
|   | f. coordinate   |
| 19. _____ look at closely                       | a. emphasize    |
| 20. _____ gather together                       | b. accumulate   |
| 21. _____ make completely wet                   | c. maintain     |
|   | d. inspect      |
|   | e. saturate     |
|   | f. orient       |
| 22. _____ become less                           | a. participate  |
| 23. _____ show or make clear                    | b. indicate     |
| 24. _____ join in an activity                   | c. contend      |
|   | d. create       |
|   | e. subside      |
|   | f. adhere       |
| 25. _____ true or correct                       | a. civic        |
| 26. _____ concerning a town or city             | b. implicit     |
| 27. _____ suggested but not stated directly     | c. valid        |
|   | d. simultaneous |
|   | e. internal     |
|   | f. mobile       |

Reprinted from Beglar, D. & Hunt, A. (1999). Revising and validating the 2000 Word Level and University Word Level Vocabulary Tests. *Language Testing*, 16(2), 131-162.



## APPENDIX E: IDIOMATIC EXPRESSIONS IN ACADEMIC ENGLISH

### Idiomatic Expressions in Academic English

**Directions:** Circle the answer that best explains the meaning of the idiom. (Choose only one response for each item.)

1. *bottom line*
  - a. maximum speed
  - b. caption appearing under a picture
  - c. lowest quality selection of products
  - d. core of what someone is saying
2. *take a stab at*
  - a. try to do
  - b. criticize
  - c. fail at
  - d. betray
3. *on target*
  - a. fixed as an absolute
  - b. completely accurate
  - c. not moving
  - d. busy at work
4. *thumbs up*
  - a. rude gesture
  - b. awkward, clumsy
  - c. approval or encouragement
  - d. conclusion
5. *shift gears*
  - a. wait for a few minutes
  - b. end the discussion
  - c. move to a different topic
  - d. start an argument
6. *tune someone out*
  - a. ignore them
  - b. go somewhere with them
  - c. praise them
  - d. misunderstand them
7. *rule of thumb*
  - a. point of view
  - b. guideline based on experience
  - c. excuse
  - d. precise measurement
8. *keep tabs on*
  - a. agree with something
  - b. continue at the same pace
  - c. observe or record carefully
  - d. keep a secret
9. *odds and ends*
  - a. the final events
  - b. strange events
  - c. harsh words
  - d. various small items
10. *get a handle on*
  - a. pick up carefully
  - b. attach
  - c. cover up
  - d. gain control or understanding
11. *garden variety*
  - a. new and exciting
  - b. common type
  - c. forbidden or illegal
  - d. colorful
12. *take the plunge*
  - a. commit to something important
  - b. make a large profit
  - c. set unrealistic goals
  - d. appear unexpectedly
13. *ring a bell*
  - a. reach a goal
  - b. sound familiar
  - c. estimate
  - d. issue a warning
14. *off the wall*
  - a. a waste of time
  - b. dangerous or risky
  - c. odd or unexpected
  - d. very important
15. *take someone to task*
  - a. scold or criticize them harshly
  - b. talk to them privately
  - c. buy them lunch
  - d. encourage them to succeed
16. *split hairs*
  - a. explain carefully
  - b. facts that don't make sense
  - c. equal shares or scores
  - d. argue over small details

Adapted from Simpson, R. & Mendis, D. (2003). A corpus study of Idioms in academic speech. *TESOL Quarterly*, 37(3), 419-441.

## APPENDIX F: SURVEY OF READING STRATEGIES (SORS)

### Survey of Reading Strategies (SORS)

The purpose of this survey is to collect information about the various strategies you use when you read **school-related academic materials in English** (e.g., reading textbooks for homework or examinations, reading journal articles, etc.). Each statement is followed by five numbers, 1, 2, 3, 4, and 5, and each number means the following:

- 1 means that “I **never or almost never** do this.”
- 2 means that “I do this **only occasionally**.”
- 3 means that “I **sometimes** do this.” (about 50% of the time)
- 4 means that “I **usually** do this.”
- 5 means that “I **always or almost always** do this.”

After reading each statement, **circle the number** (1, 2, 3, 4, or 5) which applies to you. Note that there are **no right or wrong responses** to any of the items on this survey.

Strategy	Never			Always		
1. I have a purpose in mind when I read.	1	2	3	4	5	
2. I take notes while reading to help me understand what I read.	1	2	3	4	5	
3. I think about what I know to help me understand what I read.	1	2	3	4	5	
4. I take an overall view of the text to see what it is about before reading it.	1	2	3	4	5	
5. When text becomes difficult, I read aloud to help me understand what I read.	1	2	3	4	5	
6. I think about whether the content of the text fits my reading purpose.	1	2	3	4	5	
7. I read slowly and carefully to make sure I understand what I am reading.	1	2	3	4	5	
8. I review the text first by noting its characteristics like length and organization.	1	2	3	4	5	
9. I try to get back on track when I lose concentration.	1	2	3	4	5	
10. I highlight, underline, or circle information in the text to help me remember it.	1	2	3	4	5	
11. I adjust my reading speed according to what I am reading.	1	2	3	4	5	
12. When reading I decide what to read closely and what to ignore.	1	2	3	4	5	
13. I use reference materials (e.g., a dictionary) to help me understand what I read.	1	2	3	4	5	
14. When text becomes difficult, I pay closer attention to what I am reading.	1	2	3	4	5	

Strategy	Never			Always	
15. I use tables, figures, and pictures in text to increase my understanding.	1	2	3	4	5
16. I stop from time to time and think about what I am reading.	1	2	3	4	5
17. I use context clues to help me better understand what I am reading.	1	2	3	4	5
18. I paraphrase (restate in my own words) to better understand what I am reading.	1	2	3	4	5
19. I try to picture or visualize information to help remember what I read.	1	2	3	4	5
20. I use typographical features like boldface and italics to identify key information.	1	2	3	4	5
21. I critically analyze and evaluate the information presented in the text.	1	2	3	4	5
22. I go back and forth in the text to find relationships among ideas in it.	1	2	3	4	5
23. I check my information when I come across new information.	1	2	3	4	5
24. I try to guess what the content of the text is about when I read.	1	2	3	4	5
25. When text becomes difficult, I reread it to increase my understanding.	1	2	3	4	5
26. I ask myself questions I like to have answered in the text.	1	2	3	4	5
27. I check to see if my guesses about the text are right or wrong.	1	2	3	4	5
28. When I read, I guess the meaning of unknown words or phrases.	1	2	3	4	5
29. When reading, I translate from English into my native language.	1	2	3	4	5
30. When reading, I think about information in both English and my mother tongue.	1	2	3	4	5

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Adapted from Mokthari, K. & Sheorey, R. (Eds.). 2008. *Reading strategies of first- and second-language learners: See how they read*. Norwood, MA: Christopher-Gordon Publishers.

## APPENDIX G: PRESENTATION SCRIPT

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### *Coping with the Demands of Academic Literacy: Generation 1.5 ESL Community College Students and the Challenge of Reading to Learn while Still Learning to Read*

#### PRESENTATION SCRIPT

Hello. My name is George Flowers, and I'm a full-time ESL instructor at the Manassas campus of Northern Virginia Community College. I'm also a doctoral student at George Mason University in the College of Education and Human Development.

In connection with my Ph.D. program at Mason, I am in the process of gathering data for a study on reading in a second language with special emphasis on the similarities and differences between bilingual students who graduated from high school in the United States and bilingual students who graduated from high school outside of the United States. One of my concerns in this study is the challenge colleges and universities face in determining how best to support the language development needs of students such as you.

This study has been reviewed by authorities at both George Mason University and NOVA, both of which carefully supervise any research involving human subjects. One requirement of both institutions is that study participants be fully informed about the study and be given the choice of whether or not to participate. If you agree to participate in this study, you must first sign an "Informed Consent Form." This consent form explains the research procedures as well as the steps that will be taken to protect the confidentiality of any information you provide. There is also contact information if you have additional questions or concerns.

Your decision to participate, or not to participate, in this study will not affect your grade in this course. NOVA regulations prohibit researchers from compensating students who participate in such studies, and there is no direct benefit to you as a participant, other than the knowledge that you are supporting research in the area of second-language reading. However, some of the research materials relating to vocabulary knowledge and reading strategies will be returned to you after the study; these materials may be helpful to you in understanding some of the factors that contribute to success in reading at the college level.

After you have signed the consent form – assuming you decide to participate in the study – you will be given a survey questionnaire that asks for personal background information relating to your education before entering NOVA, the languages you speak in addition to English, your ability to read English, your attitudes toward reading, and the types of reading you do when you are reading materials not related to school or work. The study also includes three short assessments of your vocabulary knowledge and a questionnaire that asks questions about the strategies you use when reading college-related materials in English.

Completion of the background information survey normally takes 15 to 20 minutes. The reading strategies survey and vocabulary assessments can be completed in 10 to 15 minutes each. Your



instructor may decide to do them all in one session, or do some in this class meeting and the others in a later class. In order to provide an accurate assessment of your vocabulary knowledge, the three vocabulary tests must be done "closed book." That is, you may not use a dictionary or other outside help.

For those of you who agree to participate in the study, thank you for your participation. For all members of the class, best wishes as you continue your education at Northern Virginia Community College.

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## APPENDIX H: INFORMED CONSENT FORM

### *Coping with the Demands of Academic Literacy: Generation 1.5 ESL Community College Students and the Challenge of Reading to Learn while Still Learning to Read*

#### INFORMED CONSENT FORM

##### RESEARCH PROCEDURES

This research is being conducted as part of a study on reading in a second language with special emphasis on the similarities and differences between bilingual students who graduated from high school in the United States (sometimes referred to as "Generation 1.5" students) and bilingual students who graduated from high school outside of the United States. The study is being conducted in Level 4 ESL reading classes at NOVA's Annandale and Manassas campuses. Information gathered for this study will be used primarily as part of a dissertation being written by the researcher, who is a full-time ESL instructor at NOVA and also a doctoral student at George Mason University. Findings will be shared with NOVA for possible use in shaping college policies regarding the placement of bilingual students in the various English language programs provided by the college.

If you agree to participate, you will be asked to fill out a survey questionnaire that asks for personal background information relating to your education before entering NOVA, the languages you speak in addition to English, your ability to read in English, your attitudes toward reading, and the types of reading you do when you are reading materials not related to school or work. You will also be asked to complete three short assessments that measure your knowledge of English vocabulary and English idioms. Finally, you will be asked to complete a brief questionnaire that asks questions about the strategies you use when reading college-related materials in English. All together, these surveys and assessments require about 60 to 80 minutes to complete; however, your instructor may split them up, giving you some of them in one class period and the rest in another class period.

If you agree to participate in this study, the following additional information will be collected from your NOVA student records: your date of birth, your scores on the three sections of the Accuplacer test, your history of previous ESL coursework at NOVA, and your final grade in ESL 42. Except for giving permission for the above information to be copied from your records, this portion of the research does not require any further action or information from you.

##### RISKS

There are no foreseeable risks for participating in this research.

##### BENEFITS

There are no benefits to you as a participant other than to further research in the area of second-language reading and possibly to gain insights into your own knowledge of English and your ability to read in English as a second language. A summary of study findings will be made available to study participants. In addition, the vocabulary assessments and the reading strategies survey you complete as part of this study will be returned to you for your personal information and for possible review with your ESL 42 course instructor if you choose to do so.

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### **CONFIDENTIALITY**

All information you provide, as well as any information copied from your NOVA student records, will be treated with complete confidentiality. No personally identifiable information from this study will be published or shared with your course instructor. Your answers to questions in the personal background survey, your scores on the vocabulary assessments, and your responses to items in the reading strategies survey will be stored electronically and identified only by a randomly assigned case number instead of your name and student ID number. Paper copies of the personal inventory will be destroyed; paper copies of the assessment tools having to do with vocabulary knowledge and reading strategies will be returned to you for your personal use.

### **PARTICIPATION**

Your participation is voluntary, and you may withdraw from the study at any time and for any reason. You may skip over any items on the personal survey/inventory or on any of the other assessments that you do not wish to respond to. If you decide not to participate or if you withdraw from the study, there is no penalty or loss of benefits to which you are otherwise entitled. There are no costs to you or any other person.

### **ALTERNATIVES TO PARTICIPATION**

Your decision to participate, or not to participate, in this study will not affect your grade in this course. You will not receive course credit for participating in the study. If you chose not to participate in the study you will be given a non-graded, in-class reading activity related to reading strategies or another non-graded activity provided by your instructor. Alternatively, you may complete the study assessments and retain them for your own personal information rather than submit them for inclusion in the study.

### **CONTACT**

This research is being conducted by George A. Flowers, a full-time ESL faculty member at NOVA and a doctoral student at George Mason University. He may be reached at (703) 530-8257 (or by email at [gflowers@gmu.edu](mailto:gflowers@gmu.edu)) for questions or to report a research-related problem. The faculty advisor for this research is Dr. Rebecca C. Fox, who may be reached at [rfox@gmu.edu](mailto:rfox@gmu.edu) or through the College of Education and Human Development at (703) 993-4123. You may contact the George Mason University Office of Research Subject Protections at (703) 993-4121 if you have questions or comments regarding your rights as a participant in the research.

This research has been reviewed according to George Mason University procedures and Northern Virginia Community College procedures governing your participation in this research.

### **CONSENT**

I have read this form and agree to participate in this study.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Date of Signature

Version date:

Revised 07/2005

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## **CURRICULUM VITAE**

George A. Flowers, Jr. earned B.S. and M.A. degrees (journalism and communications) from the University of Florida and an M.Ed. (curriculum and instruction/English as a second language) from George Mason University. He has taught in the College ESL program at Northern Virginia Community College continuously since 2001, initially as an adjunct instructor (Manassas, Annandale, and Woodbridge) and since 2008 as a full-time instructor (Manassas). He has served as a member of the college ESL Cluster Steering Committee since 2008 and as a member of the college Global Studies Committee since 2009. He is currently Chair of the Manassas Campus Council and a member of the College Senate. Before embarking on a “second” career in second-language acquisition in 2000, George served as a career Foreign Service Officer with postings in Honduras, Guatemala, Bulgaria, Romania, and (several times) Washington. Through self-study and formal language training in the U. S. Department of State’s Foreign Service Institute (FSI), he attained professional-level fluency (3/3 or higher) in Spanish, French, Bulgarian, and Romanian. He is also a graduate of FSI’s Economics and Commercial Studies program, an intensive, one-year, master’s level program designed to prepare Foreign Service Officers to serve as Economic Officers in U.S. embassies around the world. In his final Washington assignment in the Office of the Director General of the Foreign Service, George received the Department’s Benjamin Franklin Award for his work in designing and implementing a major reform of the State Department’s Language Incentive Pay program.