PATTERNS OF L2 VOCABULARY DEVELOPMENT

AMONG ESL ADULTS

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Submitted to the Faculty of the
Graduate College of the
Oklahoma State University
in partial fulfillment of
the requirements for
the Degree of
DOCTOR OF EDUCATION
December, 1998

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ACKNOWLEDGMENTS

I would like to acknowledge and express my appreciation to many individuals for their contributions toward the development of this dissertation. This study and paper would have been impossible without their individual efforts. Consequently, I would like to thank the following:

First, I am most grateful to my committee for their time, advice, and willingness to serve. Specifically, I would like to thank the following members: my chair and adviser, Dr. Malatesha Joshi, for his expertise in reading, and his guidance through the dissertation process; Dr. Sally Carter, for her artistic input, advice, and encouragement; Dr. David Yellin, for his expertise in language arts, and whose class introduced me to children's literature; and Dr. Gene Halleck, for her willingness to join the committee later, and for her expertise in second language acquisition.

Second, my deep appreciation extends to my friend Dr. Joan Barrick for her patience, time and effort in typing this onto the computer. This paper would have been impossible without her efforts.

Third, I would like to thank the Family Resource Center at Oklahoma State University for the use of their facility to conduct this research.

Fourth, I am most appreciative to the ESL adults who participated in this study, and also to many other enthusiastic ESL readers, whose L2 learning and suggestions contributed to the development of this study. Consequently I would like to acknowledge

some specific contributions. (a) Lucy's exemplary L2 development in reading children's literature not only encouraged me to expand my methodology to groups, but also supported my theory on using this genre with ESL adults. (b) Abby's unique L2 learning strategy highlighted the individuality of the learner, which led me to develop a design to allow for individual differences. (c) Frances's comments on dictionary use contributed to the development of hypothesis three.

Fifth, I am grateful to Dr. Katie Perry for her suggestion on how to categorize the four tests in relation to the threshold.

Finally, I am deeply appreciative to my friends and family for their support and encouragement over the years to continue. I would like to specifically express my deep appreciation to my daughter for her sense of humor, encouraging comments, and for patiently enduring my efforts to reach this point; and to my mother, who taught me a love of words and who encouraged me to finish. In conclusion, I would like to dedicate this paper to my father for his love of history, and to my husband who taught me the love of learning. I am most grateful for each person's unique contribution.

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CHAPTER I

INTRODUCTION

The relationship between vocabulary development and reading is important for both first (L1) and second language (L2) development and is found in the literature. In L1 research, Just and Carpenter (1987) cited empirical evidence that vocabulary development is a correlate of reading comprehension at .66 and .75.

In second language (L2) research, Fitzgerald (1995) surveyed eight studies and concluded that vocabulary knowledge was a significant variable for ESL readers' success. She further cited Garcia that "vocabulary knowledge is more important than prior knowledge for test performance" (p. 153). Other second language researchers indicate that vocabulary is one of the most difficult aspects of learning a second language (Gass & Schacter, 1989; Knight, 1994), and that ESL students need to learn massive amounts of vocabulary (Jones, 1995). Vocabulary is also crucial to building the threshold of reading. Prior to this threshold, ESL beginners need a foundation in vocabulary and are not ready to read for meaning. The concept of a threshold in second language research is part of a larger issue of whether L2 reading is considered a reading or a language problem (Alderson, 1984; Bernhardt & Kamil, 1995; Clarke, 1988). The reading side of the issue is that poor readers in their first language will also be poor readers in the second language. The language side of the issue is that there is an L2 threshold level, which ESL beginners need to read well in the second language. This

study focused on the language side of the issue, by emphasizing the necessary vocabulary to develop the foundation for ESL adults to reach the threshold for L2 reading.

Vocabulary development is also related to motivation and to reading materials. Motivation is important because learning a second language is a difficult task for ESL adults, since they have progressed beyond what Lenneberg in 1967 called the "critical period (cited in Aitchison, 1985, p. 93). Aitchison described this period as biologically determined, so that "following the onset of adolescence, second language acquisition occurs only after a considerable struggle" (p. 93).

This struggle may be related to motivation and vocabulary development. According to Oxford and Shearin (1994), "motivation determines the extent of active personal involvement in second language learning. Conversely, unmotivated students are insufficiently involved and therefore unable to develop their potential L2 skills" (p. 12). Jones (1995) stated that "strong positive motivation is a feature of a good language learner", and that "positive or negative experiences of coping with vocabulary are strongly related to overall perceptions of success or failure" (p. 97). In other words, L2 adults must be motivated to learn the massive quantity of vocabulary needed, especially in beginning L2 learning.

Reading material can also be an influencing factor in second language acquisition (SLA) and vocabulary development. Krashen's (1985a) theory of SLA included two hypotheses related to motivation and materials: the Input Hypothesis and the Affective Filter Hypothesis. His Input Hypothesis stated that in order for language acquisition to occur, input must be comprehensible with structures slightly above a learner's L2 competence, or "i + 1". The Affective Filter Hypothesis is based on a learner's positive

or negative state. Krashen indicated that low self-esteem, anxiety, and lack of motivation are negative states, which filter or block L2 input. Conversely, motivation is a positive state, which lowers the filter and allows reception of L2 input. This suggests that the type of L2 reading materials for adults is important in relation to this filter. In other words, it is important to provide L2 materials which will foster motivation for ESL adults to read.

Since the 1980's, children's literature has been introduced into elementary school classrooms as a new source of reading materials for beginning L1 readers. This genre has replaced basal readers in many schools, but is also part of a wider controversy of whether learning to read one's first language is code or meaning oriented. The important point for this study is that children's literature is now used in an L1 teaching and learning context. This study explored using this genre in an adult L2 context as a motivational tool to encourage ESL adults to read and develop their L2 vocabulary.

There is support in L2 research for using children's literature with ESL adults. It is mentioned as suitable to develop vocabulary and enthusiasm for L2 reading (Cho & Krashen, 1994; Flickinger, 1984), to develop literacy skills, (Smallwood, 1992), to provide experience with literature (Flickinger, 1984; Silverman, 1990), to provide background in L2 culture (McKay, 1982; Thistlewaite, 1994), and to use with low level learners (Holt, 1995).

Statement of Purpose

The purpose of this study was to examine the nature of L2 vocabulary development of ESL adults for reading a second language, to examine the characteristics of the L2 threshold of reading, to compare L2 vocabulary development and book choices

between individuals and vocabulary levels, and to develop a rationale for using children's literature with ESL adults.

This study differs from other studies in several ways. First, it is learner-driven rather than a controlled empirical study with specific materials and vocabulary. It is learner-driven in that subjects chose their reading from the researcher's collection of children's literature, and chose their unknown vocabulary from reading. The only control was the preselection of the books for the collection by the researcher. Furthermore, with respect to its learner-driven nature, this study differs from Cho and Krashen's (1994) L2 reading research on FVR (Free Voluntary Reading). Cho and Krashen limited the choices of children's literature to only one series of books, whereas this study used a variety of different genres, levels and series. In addition, Cho & Krashen measured ESL vocabulary development based on specific targeted words, while this study analyzed the nature of both the self-selected vocabulary and books.

Second, this study differs in its vocabulary focus because vocabulary studies are scarce in L2 research, in spite of the claim that vocabulary is considered one of the most difficult and important aspects of second language acquisition (Gass and Schacter, 1989; Jones, 1995; Knight, 1994). For example, from 1991-1996, there were only three articles relating to vocabulary studies in the TESOL Quarterly, a major journal in second language research, and one article appeared in 1997. Third, this study differs in its battery approach to assessment of four linguistic aspects of vocabulary: pronunciation, synonyms-antonyms, silent reading, and spelling as pretests and posttests.

Fourth, this study is unique in its application of a specific level for the threshold of L2 reading, which was hypothesized to be equivalent to an L1 reading level of fourth

grade, to differentiate between subjects' levels of L2 vocabulary proficiency. Other studies related to the L2 threshold of reading have focused on whether L2 reading is a language or a reading problem (Alderson, 1984; Bernhardt & Kamil, 1995; Clarke, 1988; Lee & Schallert, 1997). Finally, this study differs in its literature focus and the way in which children's literature is used with ESL adults. Other ESL researchers have described the value and/or criteria for using this genre with ESL adults in the context of family literacy (Flickinger, 1984; Holt, 1995; Silverman, 1990; Smallwood, 1992; Thistlewaite, 1994). This study is unique in its use of children's literature as integral to the research for vocabulary data.

Assumptions of the Study

This study was based on the following assumptions developed from research and teaching ESL adults. First, the main assumption was a concept that an L2 threshold level is necessary to read for meaning in a second language. This concept of an L2 threshold level of reading was based on a similar phenomenon found in L1. Although it is not mentioned specifically in L1 literature as a threshold level, Aaron (1991) implied this phenomenon when he indicated that the need for the mechanics of reading decreases and changes to greater reading for meaning around the fourth grade. Consequently, this study assumed that the implied threshold for L1 readers would be the same for L2 readers and would be equivalent to the fourth grade level. Therefore, for purposes of this study, the threshold level for reading a second language was hypothesized at a fourth grade level, referred to as level four. Based on this assumption, the vocabulary tests were chosen for their grade equivalents to differentiate between subjects' vocabulary levels below and above the threshold at level four.

Second, that the word knowledge needed for L2 vocabulary development in the foundation for reading includes word structure, word formation, spelling and how words function in sentences.

Third, children's literature is suitable for ESL adults to develop L2 vocabulary and interest in reading. This genre can motivate ESL beginners to move beyond the L2 threshold for reading, and different subgenres are usable with adults at various L2 vocabulary levels.

Statement of the Problem

Besides lacking research on L2 vocabulary, second language research lacks studies in two areas: the use of children's literature as reading material with ESL adults, and specific data in relation to the L2 threshold of reading. This study was designed to address these two issues. First, in relation to children's literature with ESL adults, most studies have been in the context of family literacy (Flickinger, 1984; Holt, 1995; Silverman, 1990; Smallwood, 1992; Thistlewaite, 1994), and have lacked empirical evidence. Cho and Krashen (1994) studied ESL adults' vocabulary development through free voluntary reading (FVR) using children's literature and did include data. However, since Cho and Krashen gave no data on their subjects' vocabulary levels at the start of their study, it is possible that their subjects were above the threshold for L2 reading. This study was designed to supply both qualitative and quantitative data on L2 vocabulary development in relation to the L2 threshold of reading through its application of children's literature as reading materials.

The second L2 issue addressed by this study was the provision of specific data on the threshold for reading a second language. This threshold is mentioned in some L2

research within a theoretical issue on whether L2 reading is a language or a reading problem (Alderson, 1984; Alderson & Urquhart, 1984). Although others have studied this concept quantitatively (Bernhardt & Kamil, 1995; Carrell, 1991; Lee & Schallert, 1997), there is little qualitative data on the threshold concept alone. Alderson and Urquhart (1984) recommended further research on the nature of this threshold with individual learners in a case study approach. This study addressed their concerns by providing qualitative and quantitative data on L2 vocabulary patterns in relation to the L2 threshold with adults.

Therefore, this study attempted to answer the following questions. What is the nature of vocabulary development of ESL adults above and below a threshold of reading? What is the nature of this threshold? What are the differences in book choices and dictionary dependence of ESL adults in relation to this threshold?

Significance of the Study

The findings of this study can contribute to the understanding of adult second language acquisition in the following ways. First, the qualitative data on L2 vocabulary development and dictionary dependence can supply an understanding of the vocabulary foundation for reading a second language, as well as characteristics of ESL adults at different vocabulary levels. Second, analysis of individual characteristics of the threshold can add further insight into the nature of this theory and phenomenon. Third, the use of children's literature for second language reading material and vocabulary development can provide more in-depth information concerning the use of children's literature in a second language adult context, and contribute additional available resources of L2 materials for ESL adults.

Definition of Terms

Basal Readers: contain repetitive, controlled and graded vocabulary, so that the vocabulary level will match the grade level of those reading the books, and new words are introduced at a specific rate.

Category: in this study refers to subjects' placement according to the number of test scores above or below an L2 threshold of reading, hypothesized at a fourth grade level, or referred to as level four. There are three categories: category 1 is above the threshold with either three or four test scores above level four; category 2 is either at or above the threshold with two test scores above and two test scores below level four; and category 3 is below the threshold with three or four test scores below level four.

Dictionary Definitions: refer to the subjects' use of dictionaries for equivalents in words or phrases, written on subjects' vocabulary lists in the language of subjects' choosing (i.e., L1, L2, or L1 & L2).

Genre: specifies a type of literature categorized by form, technique, or subject matter (Holman & Harmon, 1986). In the context of this study, children's literature was considered a genre in contrast to adult literature and included general and specific divisions within the genre. A general division distinguished between the size and amount of illustrations. Thus the smaller and more visual books were picturebooks and were abbreviated "PB". The larger, less visual were young adult books and were abbreviated "YA". The specific divisions within the genre included biography, fiction, historical fiction, and information.

Input: is an information processing term. In this study, it will refer to written L2 data available for ESL readers, and contrasts with "intake", which is input that has been accepted, acquired, and retained for use.

Interlanguage: describes a cross-lingual relationship. In this study it refers to vocabulary problems which originate in the learner's L1. This term is also associated with the theory of interlanguage, language transfer, and L1 interference (Odlin, 1989; Selinker, 1972).

Intralingual: describes characteristics within a language. In this study, it refers to vocabulary problems originating within the second language.

Literacy: has many definitions. In this study it refers to a learner's ability to read and write the target language and differs from oral literacy.

Readability: refers to issues which relate to ease or difficulty of reading a text.

Reading comprehension: involves word recognition and word identification, so that the reader is able to pronounce and understand the meaning of written words. Comprehension is thought to be a major component of reading.

Second Language Acquisition: is the unconscious process of learning a second language, and is distinguished from conscious learning, according to Krashen (1985a). In this study, second language acquisition (SLA) refers to a learner's knowledge of a second language from both conscious and unconscious learning.

Threshold Level of Reading: in this study refers to an L2 theoretical phenomenon when L2 vocabulary and language development are sufficient for ESL learners to move beyond the mechanics of learning a second language, and are able to read for meaning in

the target language. This threshold level is hypothesized to be at a fourth grade level, referred to as level four.

Statement of Hypotheses

This study tested the following hypothesis.

1. There will be a difference in the nature of vocabulary development of ESL adults above and below a threshold.

2. There will be a difference in book choices by ESL adults below and above the threshold.

3. There will be a difference in dictionary dependence by ESL adults below and above the threshold.

4. The threshold for reading a second language will be characterized by: a decrease in focus on grammar; a decrease in dependence on the dictionary; and a change in book choices and interest in reading.

Limitations of the Study

This study included the following limitations. First, due to the qualitative nature of this design, the selection of subjects was purposeful (Erlandson, Harris, Skipper & Allen, 1993), and was not random. Consequently, the results were specific to participants and could not be generalizable to the larger ESL population. However, the qualitative nature of the L2 profiles can provide insight on individual L2 vocabulary, which can be verified through further research with larger populations.

Second, outside L2 input was thought to be a possible intervening variable because ESL adults in this community utilize the many available ESL resources here.

However, because the results of this study were not causative as a result of instruction, there appeared to be no effect. Third, although the number of subjects was small, there was no effect from attrition.

Fourth, there was no limitation due to the length of the study because this study took longer than had been anticipated and lasted one semester (16 weeks). In addition, the profiles of the individual subjects showed unique characteristics.

Fifth, there was a limitation in that it was not possible to correlate the reading levels of the books to the reading levels of the subjects, as had been proposed. This was due to the surprisingly inconsistent reading levels in that some picturebooks had high reading levels when calculated by formula, and some young adult books had low reading levels.

Finally, because the composition of the Family Resource Center's classes was generally female, the subjects selected from this facility for the study were women. However, the qualitative nature of the study addressed this concern.

Organization of the Study

This study is organized in five chapters. Chapter One introduces the study with its assumptions, purpose, statement of the problem, significance, definitions, and potential limitations of the study. Chapter Two surveys the relevant literature and expands the rationale for the study. Chapter Three describes the methodology for the study, and identifies paticipants and selections, the instruments to be used in the study, and the design. It also describes procedures, a pilot study, and how data were collected and analyzed. Chapter Four organizes, describes, and analyzes the data. Chapter Five

discusses the results of the study, draws conclusions, makes recommendations for further research, and presents criteria for selection of children's literature with ESL adults.

CHAPTER II

REVIEW OF LITERATURE

Vocabulary development is considered a major task of second language acquisition (Allen, 1992; Fitzgerald, 1995; Knight, 1994) and is important for adult motivation to learn a second language (Jones, 1995; Krashen, 1985a; Oxford & Shearin, 1994). The importance of second language vocabulary is evident in two relationships: the relationship of vocabulary to reading, and the relationship of vocabulary to reading materials. These two dimensions form the divisions of this chapter.

Vocabulary and Reading

There is direct and indirect evidence of the relationship between vocabulary development and reading. First, direct evidence is found in the correlation of vocabulary to reading comprehension as reported by Just and Carpenter (1987) at .66 and .75, and mentioned by others (Curtis, 1987; Sternberg, 1987). Second, the bulk of vocabulary growth, which is gained during school years, occurs mainly through incidental learning in reading (Nagy & Herman, 1987; Nagy, Herman & Anderson, 1985; Nation, 1990).

Indirect evidence of a relationship between vocabulary and reading is seen in issues regarding testing, readability, and a threshold for reading. First, in testing, vocabulary subtests are part of standardized and informal L1 reading tests, standardized L2 proficiency tests, and college entrance tests. Examples of standardized L1 reading tests are Nelson-Denny Reading Test (Brown, Fisco, & Hanna,1993), Gates-MacGinitie

Reading Tests (1989) and Woodcock Reading Mastery Test-Revised (1987). Examples of L1 informal reading tests include Burns and Roe Informal Reading Inventory (1993) and Stieglitz Informal Reading Inventory (1991). Standardized L2 proficiency tests include Michigan Test of English Language Proficiency (1977), and Test of English as a Foreign Language (TOEFL, 1995-1996). An example of college entrance tests is the Scholastic Aptitude Test (SAT). Although the TOEFL is a proficiency test, colleges require a certain level on the TOEFL for ESL students for academic success.

The second indirect evidence of a relationship between vocabulary and reading is seen in readability issues, which relate to the ease or difficulty of reading a text based on vocabulary. These issues include readability formulas, textual simplification, and basal readers. First, readability formulas measure ease or difficulty of reading a text by vocabulary and sentence variables, and assign a grade level to the text. Examples of formulas include the following: Fry's (1977) counts the number of syllables, sentences and words per passage; Raygor's (1977) counts the number of words with six or more letters, and number of words and sentences per passage; while Carver's (1994) measures percentage of words unknown to the reader.

Carver's concept of percentage of unknown words per text has value for this study in relation to a threshold of reading and dictionary dependence for ESL learners. In other words, L2 readers below the threshold should have a higher percentage of unknown words and dictionary dependence when reading. While L2 readers above the threshold should have a lower percentage of unknown words and less dictionary dependence. Knight (1994) studied ESL use of bilingual dictionaries for comprehension and vocabulary development, but did not address the amount of dictionary use at various vocabulary

levels. This study was designed to study the amount of dictionary use by L2 readers at various vocabulary levels in relation to the threshold.

The second readability issue is simplification of language in a text so that it matches the reading level of the student (Davies, 1984). Results of the process of simplification are basal readers. Although basals are not commonly used in L2 methodology, the concept of simplified material is important for L2 reading (Alderson & Urquhart, 1984).

The third indirect evidence of a relationship between vocabulary and reading is the concept of a threshold for reading. Although not commonly found in L1 literature, a threshold of reading was conceptualized by Ehri in 1979, and later implied by Aaron in 1991. First, Ehri conceptualized the threshold of reading as having a possible causal relationship to word consciousness, in that linguistic capabilities are related to the threshold of reading. These capabilities include word consciousness, printed language concepts, and sound consciousness. However, Ehri did not specify a numerical level for this threshold.

Second, Aaron (1991) implied the existence of such a threshold and level when he reported that there was a reversed relationship between decoding and comprehension skills before and after the third grade. In other words, recognition of a printed word, or decoding skills, is greater prior to third grade, but decreases after third grade. Aaron attributed this change to the need for "mechanics" of reading prior to third grade and the shift to meaning after third grade. (This study is based on Aaron's designated level for the threshold at the fourth grade level.)

The concept of a threshold can be traced in L2 literature, but with different contexts and terminology. The first appearance of the term "threshold" is found in the development of an L2 syllabus, the Threshold Syllabus, by van Ek in 1975 as a modern language project for the Council of Europe, according to Long & Richards (1987). This syllabus was described by van Ek and Trim (1984) as a "detailed specification of what learners will be able to do in a foreign language" (p. 79), and which words and grammatical structures would enable them to meet these objectives. In a later article, van Ek (1987) indicated that the threshold objectives referred to oral communicative skills. The point for this discussion is that the term "threshold" was used in a functional syllabus, with specified objectives, and focused mostly on oral skills and not reading.

In 1978 Cummins introduced two contrasting hypotheses: the Threshold Hypothesis and the Interdependent Hypothesis. The focus of these hypotheses was on a child's L1 competence in relation to the development of L2 competence. Verhoeven (1994) defined the term "threshold" in Cummins' first hypothesis: that threshold had referred to L1 competence rather than L2 competence, and that a minimal level of L1 was needed for children to avoid cognitive disadvantage. Consequently, according to Verhoeven, the level of L1 development would not only limit L2 level of development, but that L1 would also predict the level of L2 competence. In Cummins' second hypothesis, the Interdependent Hypothesis, the relationship between L1 and L2 was stated as competency of skills rather than as a threshold level. Cummins stated that "the development of L2 skills is a function of L1 skills" (Cummins, 1978, p. 396). Although Cummins' hypotheses addressed the bilingual aspect of learning a second language, there were limitations in his study in relation to this study. First, the threshold level referred to

L1 competence, rather than L2 competence; second, his theories were with children, rather than adults; and finally, both hypotheses related to general language proficiency, rather than a specific skill, such as reading.

In 1979, Clarke applied Cummins' bilingual concept to an L2 reading context in his Short Circuit Hypothesis (Clarke, 1988). This theory claimed that good L1 readers will be short-circuited by low L2 proficiency.

In 1984, Alderson, and Alderson and Urquhart extended the threshold concept to a wider theoretical question of whether L2 reading was a reading or a language problem. The reading side of the issue is the Linguistic Interdependent Hypothesis, and refers to L1 reading proficiency, in that good L1 readers will be good L2 readers. The language side of the issue is the Linguistic Threshold Hypothesis, which reflected Clarke's Short Circuit Hypothesis.

More recently, the L2 reading context for the threshold concept and contrasting hypotheses has been studied by Carrell in 1991, and Bernhardt and Kamil in 1995. The results of both studies concluded that both L1 and L2 factors entered into the picture of second language reading. However, while their findings did not clearly support either hypothesis, neither did their results deny the existence of a threshold.

Consequently, both studies had some limitations in relation to the threshold concept for this study. First, neither examined the existence of a threshold, but whether L2 reading was a language or a reading problem. Second, the subjects in Bernhardt and Kamil's study were a highly homogeneous group in their L1 reading ability as Air Force Cadets, and were statistically indistinguishable from each other at ($p < .01$). Third, while Carrell recognized the dual contributing factors, she modified her results with the

statement, "it may be that proficiency level in second language is more crucial for learners at slightly lower proficiency levels" (p. 168). This would suggest support for the threshold concept, as L2 learners below the threshold need a vocabulary base to read.

The history of the concept of an L2 reading threshold is important for background on this study for two reasons. First, the context of the term "threshold" has changed since the 1970's, from van Ek's objectives for a functional syllabus, to Cummins' bilingual hypothesis, to a reading context in Clarke's Short Circuit Hypothesis. Then in 1984, the threshold was part of the L2 reading question (Alderson, 1984; Alderson & Urquhart 1984), and was researched by Carrell (1991), and Bernhardt and Kamil (1995). This study focused on the language side of the L2 reading question, and extended the research to a quantitative and qualitative study on the nature of the L2 reading threshold. Second, based on the assumption of a threshold for L2 reading, this discussion poses a possible connection between the threshold concept to models of reading. Consequently, it is important to include a brief summary and discussion of the models of reading.

Models of Reading

The models of reading are discussed according to Samuels and Kamil's (1988) descriptors of linear and nonlinear processing. First, linear models of reading assume a one-way direction of processing reading material, and have two contrasting forms: top-down and bottom-up. The top-down model was advocated by Goodman in 1976 as a psycholinguistic model. This model emphasizes one-way directional processing from the top of meaning level of a text and proceeds downward to words or parts. Top-down models allow readers to make predictions and confirmations about a text. This model is behind the philosophy of a whole language approach to teaching children to read their first

language (Atwell, 1987; Hansen, 1987). The other linear model is the bottom-up model, in which the reader begins with the code, or individual words, as the bottom or starting point for processing texts (Gough, 1972; Samuels & Kamil, 1988) and moves upwards through a text to gain meaning. This model forms the basis for a phonics approach to teaching L1 reading.

The second type of model is nonlinear. These models assume a deficiency in linear models and include Rumelhart's (1977) Interactive Model, and Stanovich's (1980) Interactive Compensatory Model. The most common form of the first is Rumelhart's Schema Theory (Lipson & Wixson, 1991; Samuels & Kamil, 1988). This interactive model allows interaction from several knowledge sources, such as syntax, semantics, lexical, orthography, and background. Stanovich's Interactive Compensatory Model allows the reader to compensate for deficiencies in one level by using another level of processing. Samuels & Kamil gave an illustration of a beginning reader, who might be weak in decoding skills, but could compensate by using the context of the whole to comprehend the meaning.

The purpose for the background on the models of reading is to pose a possible connection between the models and the theory of a threshold of reading. It is the hypothesis of this researcher that the threshold could be used to explain the models. There are some comments in the literature which could support this concept. Eskey (1988) provided an example of a possible connection, when he stated that top-down models "promote an accurate model of the fluent reader, whose decoding skills have become automatic" (p. 94). Allen (1992) expressed concern for Krashen's concept of free voluntary reading based on the L2 reader's need for a base of vocabulary in order to read

well on their own. Both comments would imply support for a threshold: Eskey's readers would be above the threshold, Allen's would be below. Likewise, West and Stanovich (1978) claim that high levels of automatic word identification are characteristic of skilled adult readers, which implies support for adults who read above the threshold.

Consequently, a rationale for a connecting link between the threshold and models of reading could possibly be as follows. Perhaps the reading process is not best described through only one model or another, but rather that each model portrays the reader at different proficiency stages in relation to the threshold. Therefore, the top-down model could depict the reader above the threshold, the bottom-up could explain the reader below the threshold, and the nonlinear model could explain the reader near or at the threshold level.

If there is a threshold for L2 reading, then the nature of the vocabulary foundation for the threshold is also important. In second language literature, L2 acquisition is described as linguistic. Laufer (1990a) itemized the linguistic components of word knowledge as form, word structure, syntactic pattern, lexical relations, and common collocations (word environments). O'Grady, Dobrovolsky and Aronoff defined grammar in terms of linguistic elements as follows: "phonetics – articulation of speech sounds; phonology – patterning of speech sounds; morphology – word formation; syntax – sentence formation; and semantics – interpretations of words and sentences" (O'Grady et al., 1993, p. 4). Canale (1983) also defined the grammatical component of the communicative competence model of L2 acquisition in linguistic elements of phonology, word and sentence formation, vocabulary meanings, and orthography. My point is that

the linguistic elements of language relate to this vocabulary study because L2 vocabulary knowledge is linguistic in nature, and L2 vocabulary data was analyzed linguistically.

Although each linguistic level is important for L2 acquisition, this discussion focuses on morphological and orthographical levels, because of their importance for L2 vocabulary development and threshold for this study. Consequently, the following section discusses how these levels are viewed in L1 and L2 literature. Then selected studies, related to these levels and to L2 vocabulary problems, are discussed.

Morphology

Morphological word knowledge is based on morphemes, which can be an individual letter or a group of letters. Morphemes are the smallest units of meaning in languages. In English, morphemes can attach or affix to other morphemes for word formation.

There are several types of morphemes, which are important for ESL learners to know for vocabulary development and reading. These morpheme types include: bound-free, inflectional-derivational, and roots-affixes. The first category distinguishes between bound morphemes which have no meaning by themselves (i.e., "-ing"), and free morphemes which have meaning both alone or when attached, such as "ship" (i.e., "friendship"). The second morpheme category differentiates word functions. Inflectional morphemes carry grammatical information, while derivational morphemes carry class information. There are only eight inflectional morphemes in English, and all are bound. For example, "-ed" verb morphemes indicate past tense, and the "-s" morpheme can show possession, plurality, or third person singular in the present verb tense. Derivational morphemes indicate the syntax or function in sentences. For example, when "-ion" is

affixed to the verb "relate", the function in the sentence changes from a verb to a noun, "relation". The third category of morphemes distinguishes between roots (or bases) and affixes (i.e., prefixes and suffixes). For example, the root of "predict, dictionary, and edict" is "-dict-", while "pre-, e-" are prefixes, and "-ion, -ary" are suffixes.

The importance of morphological word knowledge is found in L1 and L2 literature in three types of studies: instructional, diagnostic, and acquisitional. L1 instructional studies indicated the following. First, morphemic and structural analysis instruction improved metacognitive awareness, decoding, and vocabulary development in the upper grades (Henry, 1993), and direct instruction in morphological analysis was effective for grades four and above (White, Power & White, 1989). Second, knowledge of Anglo-Saxon, Greek and Roman derivational morphemes enabled experienced readers to recognize chunks within words (Moran & Calfee, 1993); and knowledge of word parts increased vocabulary (Graves, 1987). In L2 research, two studies used morphological vocabulary exercises to promote knowledge of morphemes by creating new words (Olshtain, 1987; Paribakht & Wesche, 1996).

Perhaps these studies may be reflecting advanced levels of morphemic knowledge, which could be characteristic of readers above the threshold. For example, Henry (1993) referred to "upper grades", White et al. (1989) referred to grades four and above, and Moran and Calfee's (1993) readers were experienced. If there is a threshold for reading in L1 at about the fourth grade, as Aaron's article in 1991 implied, then the L1 studies would describe readers above the threshold. Olshtain's (1987) L2 subjects were intermediate and advanced students, which would also imply L2 readers above the threshold.

Morpheme instructional studies relate to this study on L2 vocabulary development, because morpheme instruction would be useful to build the vocabulary foundation to reach the threshold of reading. In addition, knowledge of different types of morphemes could be characteristic of different vocabulary levels in relation to the threshold.

The second morphological category involves diagnostic studies. There is evidence in L1 studies that morphemic and structural analysis can be used to diagnose and treat reading problems (Aaron & Joshi, 1992; Lipson & Wixson, 1991). Others indicated that knowledge of derivative morphemes distinguished between good and poor spellers (Fischer, Shankweiler & Liberman, 1985; Templeton & Scarborough-Franks, 1989). Although the latter two studies relate more to orthographic word knowledge, they are examples of how morphemes can be used for diagnostic purposes. The importance for this study is that morphemic knowledge is necessary to develop the L2 vocabulary foundation, and can be used to diagnose ESL students' morphemic knowledge in relation to the threshold.

Acquisition studies form the next set of morpheme studies, and indicate that morpheme acquisition is hierarchical, or acquired in stages. In L1 research, Tyler and Nagy (1989) stated that recognition of morphemic relationships is acquired first by the fourth grade, followed by syntactic properties of suffixes, and the last acquired are distributional properties (how affixes are effected by the syntactic category of the base to which they attach, e.g., "-ness" attaches to adjectives, p. 658).

In L2 research, morpheme acquisition studies were more prevalent during the 1970s, such as Dulay and Burt's (1974) study of inflectional morpheme acquisition by Spanish and Chinese children learning English. Their results showed no difference in the

L2 morpheme acquisition order between the different L1 backgrounds. They suggested that this implied a universal acquisition order, which occurred in stages. For example, morphemes acquired early included case, copula (be), and "-ing", while possessive "-s", third person "-s", and long plural "-es" were acquired last. Currently, Zobl and Liceras (1994) have indicated that these 1970 morpheme studies were criticized on two points, but that the studies are being reassessed. The first criticism was that the acquisition similarities were superficial. Zobl and Liceras stated that this criticism has now been rejected due to further research which supported the 1970 studies. The second criticism was that results were not generalizable. In answer to this criticism, Zobl and Liceras reanalyzed four morpheme studies of the 1970s for the role of functional categories (i.e., that nominals are acquired before verbal morphemes). Their results found a distinction in the acquisition order of free and bound morphemes, that free morphemes were acquired early and bound were acquired later.

The important point of the acquisition studies for this study is that some morphemes are more difficult to learn than others and will take longer. Second, morpheme acquisition is part of vocabulary development of the foundation for the L2 threshold of reading. Third, it is also possible that morpheme acquisition may relate to the threshold in distinguishing readers below and above it. For example, readers below the threshold might have more difficulty with certain inflectional morphemes, while readers above the threshold might have less difficulty.

Orthography

Orthography (i.e., the written code or symbols of a language) is important for this study because it is related to morphological word knowledge through spelling

competence. This implies a relatedness between the linguistic levels of word knowledge. This relatedness is supported in L1 literature and is defined as "linguistic sensitivity" by Fischer, Shankweiler, and Liberman (1985). They stated that spelling competence is not an isolated ability in that it requires phonemic, morphological, and phonological word knowledge besides orthographic knowledge. Other studies support the relatedness of linguistic levels. Holmes and Ng (1993) comment that poor spellers lack the morphophonemic relationship. Tunmer and Hoover (1992) report that native speakers know the morphophonemic rules, and that different letters are pronounced differently in different phonological settings.

Spelling competence also relates to difficulty factors in learning L2 vocabulary. This section will use Oller and Ziahousseiny's (1970) terminology to distinguish the source of vocabulary difficulties either from L1 as "interlingual", or from L2 as "intralingual". Interlingual problems were later classified "language transfer" by Selinker (1972) as one of five processes in his theory of interlanguage, or a learner's transitional and independent grammar between L1 and L2. In the context of this study, interlingual is also associated with the term, "L1 interference", which is synonymous with language transfer. First language transfer will be used in the qualitative analysis of the orthographic difficulties caused by differences between L1 and L2, and will be discussed first. Intralingual problems, which relate to vocabulary difficulties within the second language, are discussed following interlingual problems.

Interlingual Problems

Odlin (1989) referred to language transfer as a very important factor in second language acquisition. Koda (1989) found that prior L1 knowledge of Kanji orthography

in Korean and Chinese facilitated reading of L2 Kanji-related Japanese. Lado (1955) analyzed seven patterns of difficulty in learning L2 vocabulary, based on form and meaning distinctions between L1 and L2. He attributed some difficulty to the fact that languages classify meaning differently, in that a word in one language may have a lexical meaning, while in another language may have a morphological meaning. Lado (1955) used the example of plurality between Chinese and English. Chinese expresses plurality lexically, while English expresses it morphologically by affixing morphemes "-s or -es" to the base word.

Lado's patterns of learning difficulty are important for this study because his classification focused on the form and meaning distinction between two languages. Some of these patterns were used in this study to analyze L2 vocabulary development of ESL adults. For example, which patterns were more evident in relation to the threshold of reading? In other words, which types of problems were characteristic of the foundation or are at or above the threshold? Were some patterns more common to specific L1 groups? Which patterns were more difficult for individual learners? Because Lado's patterns relate to this study, each pattern is discussed, and includes Lado's ranking, or degree of learning difficulty, "easy, normal or difficult".

Lado listed cognates as the first pattern, which was the only pattern ranked "easy". Lado defined cognates as words which have similar form and meaning in both L1 and L2. He also included morphemic subpatterns in this category. For example, he stated that the English noun affix "-tion" has a similar form and meaning as Spanish "-cion". Jones (1995) reported that the presence or absence of cognates contributed to the difficulty factor in his self-study of Hungarian. Sanaoui (1995) indicated that cognate knowledge

was an important part of a structured approach to L2 vocabulary learning. Although cognates are ranked easy to learn, they can create spelling problems. According to Oller and Ziahousseiny (1970), speakers of Spanish, Italian, and Portuguese may spell the English "comfort" as "confort", because it is a cognate in these languages.

Lado's second pattern was deceptive cognates. These words resemble L1 in form, but differ in meaning, and were ranked "difficult" to learn. Lado described the Spanish verb "assister", as an example because it looks like the English verb "assist", but means "to attend" in Spanish, rather than the English meaning "to help". Higa (1966) referred to this difficulty as an accidental phonetic similarity to L1 either in part or whole. Likewise, these words were labeled "false friends" by Smith (1987, p. 100).

Lado's third pattern was termed different forms. These words have different L1 forms, but have the same L2 meaning. This was Lado's only pattern ranked with a "normal" learning burden. Lado made two comments about this pattern. First, this pattern is commonly assumed to represent most L2 vocabulary learning. His second comment was that few words have exact one-to-one correspondence in all meanings of the word between two languages.

Lado's fourth pattern was labeled strange meanings. He identified words, which "differ in form and represent meanings that are 'strange' and...a different grasp of reality" (Lado, 1955, p. 35). His example was Spanish "primer piso", which is the equivalent of the English second floor, or first floor above ground level. The English first floor is at ground level. Lado modified this pattern as similar to deceptive cognates. This pattern was ranked "difficult" to learn.

Lado's fifth pattern was a new form type, and was rated "difficult" to learn. These words present a new form or construction, which is present in one language, but absent in the other. This problem is also defined in terms of "codability" by Higa (1966), and "lexical void" by Allen (1992) and Laufer (1990a). Higa's codability problem referred to a word or construction, which had not been coded in the learner's L1 lexicon, or mental dictionary. Laufer's term, lexical void, appears to define the same concept. This difficulty pattern will be evident in two forms. Either a word or construction will be present in one language but absent in another, or one word in one language will represent two or more in the other language.

An example of the first form of this pattern is in the English phrasal verb system. Phrasal verbs are two-word constructions with a verb and a particle, but carry a single meaning. For example, "call up" and "put off" are phrasal verbs. This two-word construction causes problems for ESL learners. First, L2 learners may know the meaning of the individual words, but not their combined meaning. Second, the particles, "up" and "off" given in the preceding examples, resemble prepositions, which are considered to be the second most difficult aspect of English for L2 learners (Celce-Murcia & Larsen-Freeman, 1983). Third, most non-Germanic languages lack this construction, (Germanic languages include German, Scandinavian languages, and Dutch). Laufer (1990b) considered phrasal verbs idiomatic and difficult to learn. Dagut and Laufer (1985) also reported that Hebrew learners of English tend to avoid phrasal verbs in preference to English one-word verbs.

Another example of this first form of difficulty is illustrated in the morphology and orthography of the Arabic language root system in words, or lexemes (Smith, 1987). In

this case, the construction is present in Arabic, but absent in English. According to Smith, the Arabic word structure is a three-consonant root system to which grammatical forms, such as "verbs...nouns, adjectives, etc..., are then formed by putting these three-root consonants into fixed vowel patterns, modified sometimes by simple prefixes and suffixes" p. 147). Smeaton (1973) describes this construction of internally inserted affixes, as "infixes". O'Grady et al. (1993) gave the example of the English "foot-feet" as an infix. Although English has some infixes, they are not considered a major characteristic of its language structure as they are in Arabic.

The problem for Arabic speakers in learning English originates from their language structure, and is most evident in reading and spelling in several ways. First, Ryan and Meara (1991) stated that Arabic speakers rely very heavily on consonants when reading English, which they attributed to the Arabic lexical and orthographical structure. Second, the three-consonant root structure creates a lack of consonant clusters, which is characteristic of English. Ibrahim (1978) indicated that consonant clusters are a spelling problem for Arabic speakers. Either they will insert a vowel to break up the cluster, as in "communisem", or they may reduce a cluster by omitting a consonant, as did Bebout's (1985) Spanish speakers. A third problem for Arabic speakers relates to phonological differences between Arabic and English. Ibrahim indicated that Arabic has one phoneme /b/ to represent two in English, /b/ and /p/. Consequently, Arabic ESL students made spelling errors, such as "bicture" for "picture", and "bombous" for "pompous" (p. 209).

Lado's sixth pattern, <u>different connotations</u>, was rated with a "difficult" learning burden. This pattern has two forms: either a word can be harmless in one language, but offensive in the other language, or a word can have a high association of meaning in one

language, but a low association in another (Higa, 1966). An example of the first form was illustrated by Smith (1987) in words, such as "zip, zipper, tease and nick", which appear harmless to English speakers but are considered vulgar in Arabic.

Lado's seventh pattern was words with geographical restrictions, which were rated "difficult" to learn. Although these words referred more to dialectical differences in L2 (i.e., American versus British English), Lado considered that the restrictions were part of the L2 learning burden. For example, British English uses "bonnet" to refer to what American English calls the "hood" of the car.

Intralingual Problems

This section describes factors which can originate with the L2 vocabulary rather than aspects which are related to L1 transfer problems. Laufer (1990b) defined these difficulties as "intra-lexical", and analyzed several factors. These factors are the framework for this discussion, and some were used in this study to analyze the L2 vocabulary data. For example, which L2 factors are found below or above the threshold? Laufer's degree of difficulty ratings differed slightly from Lado's, which were "easy, normal, or difficult". Laufer's terms were "facilitating, difficult, and non-effective". The non-effective rating specified words which had no effect on the learning burden. These could possibly be equated to Lado's "normal" learning burden. Laufer identified five intralexical categories for L2 learning difficulty: phonological features, grammatical characteristics, semantic features, register restrictions, and multiple meanings. Each category will be discussed briefly.

Phonological features was the first category analyzed by Laufer for two factors, pronounceability and word length. Pronounceability also relates to L2, since ease of

pronouncing a new word facilitates learning as do cognates, but words with foreign sounds are "difficult" to learn (Laufer, 1990b, p. 100). Pronunciation problems also relate to Ibrahim's (1978) Arabic ESL learners, who had difficulty with English consonant clusters. Ibrahim also identified analogy problems in L2 phonology and orthography for Arabic ESL students. Either the same L2 sound has several spellings, as the vowel sounds "ou and au" in "fought and caught", or learners perceive that two words have the same spelling. His examples of the latter problem included the following analogy errors. The sound and spelling of "regional" led to the error of "origional", and "languidge" was based on "knowledge". However, Ibrahim's example of analogy problems seems to contradict Laufer's claim that ease of pronunciation facilitates learning. Laufer's second phonological factor was word length, rated as "non-effective". Since length has been considered a factor in readability formulas, such as Raygor's (1977), Laufer's rating should be studied further. For example, it would be useful to analyze whether longer words are more difficult to learn below or above the threshold in this study.

Laufer's second category, grammatical characteristics, included three aspects: part of speech (syntax), inflectional complexity, and derivational complexity. Laufer rated syntax as a "non-effective" factor, based on a criticism of Rodger's (1969) claim that nouns and adjectives were easier to learn than verbs and adverbs. Laufer suggested that the difficulty in learning verbs could possibly be attributed to morphological difficulty rather than syntactic difficulty. Laufer's criticism was based on the fact that Rodgers studied nouns in the nominative case or the uninflected form. Laufer indicated that other studies also showed inconclusive results as to syntactic L2 learning difficulty, and ranked this aspect "non-effective".

Inflectional complexity, according to Laufer, increases the learning difficulty of a word. Inflectional complexity is directly related to the morpheme acquisition studies. For example, Dulay and Burt's (1974) study indicated that the present progressive "-ing" morpheme is acquired early. Therefore, it should be easier to learn. On the other hand, past irregular and third person "-s", and the plurals "-s and -es" are acquired later, which implies a greater learning burden.

Derivational complexity, according to Laufer, increases the learning difficulty of a word. Derivational factors involve how morphemes combine to form words. Laufer discussed several aspects of difficulty for ESL students. First, Laufer (1990a) indicated that words that share a similar root, but have different meanings and affixes, cause difficulty. This was illustrated in the root "industry" which might cause a misinterpretation of "industrious" to mean "industrial".

A second difficulty occurs when patterns of affixes that combine are irregular. For example, "pre-" and "ante-" have similar meanings, but are not interchangeable. Consequently, "preview" is correct, but "anteview" is incorrect. Ibrahim's (1978) spelling study also mentioned a similar problem with irregularity in noun formations from adjectives. Examples included "brave-bravery", and "safe-safety".

Third, deceptive transparency causes difficulty. This occurs when word parts look familiar, but the meaning changes and causes difficulty when they combine. Laufer cited examples from two previous studies (Benoussan & Laufer, 1984; Laufer & Benoussan, 1982) that students misinterpreted "outline" as "out of line", and "discourse" as "without direction", and "falsities" as "falling cities" (p. 299).

Semantic features form Laufer's third category of analysis for degree of learning burden. Semantic features were defined as theoretical constructs that characterize the vocabulary of the language, according to Laufer. There were three aspects of semantic features in Laufer's analysis: abstractness, specificity, and idiomaticity. Abstractness is part of a word's intrinsic difficulty (Higa, 1966; Nation, 1990) and is complex because its characteristics are intangible and more difficult to learn. In contrast, concrete words are simple and easier to learn because their characteristics are distinguishable. Laufer questioned whether these factors effected the learning burden and rated them "non-effective", and discussed an example from Balhouq's research. Balhouq's study reported that Arabic learners had difficulty with apparently simple L2 words, such as "cousin, aunt, and uncle." (Balhouq, 1976, cited in Laufer, 1990b, p. 301). However, it is possible that these Arabic difficulties could be attributed to differences in how languages classify reality. If so, the problem would reflect L1 transfer, and not the word's concrete or abstract characteristic.

Specificity of a word, according to Laufer, had an effect on learning, as specific terms are more difficult to learn. Conversely, general terms "facilitate" learning because they can be applied to a wider range of situations. The third type of semantic difficulty was the idiomaticity of a word. Laufer classified phrasal verbs in this category.

Laufer's fourth category of learning difficulty included register restrictions. Neutral words, which are not associated with one particular register, are easier to learn. Common problems identified by Laufer were either using the wrong register, or mixing items from different registers. For example, the terms "obstructed" and "clogged" are not interchangeable because although both express a similar concept, each is used in a

different context and register. Generally, "obstructed" is used in a formal register either as a medical or legal term, while "clogged" is commonly used in an informal register and would be more appropriate to drains such as kitchen sinks.

Laufer's final category of difficulty was multiple meanings, identified in two forms: one meaning with many forms (polysemes), or one form with many meanings (homonyms). Higa (1963) studied six types of relationships for their semantic similarity and effect on learning vocabulary. Three types of semantically related words were synonymity, antonymity, and free associations. Dissimilar types were partially related words (free associations), connotations, and category coordinates in the same category. Higa's results indicated that those which were semantically related were significantly more difficult to learn in comparison to relationships which were semantically dissimilar. Higa remarked that these results had implications for theme-oriented vocabulary teaching, and suggested that theme teaching in the same lesson seemed to cause difficulty, rather than facilitate it. Laufer indicated that one form and one meaning "facilitated" learning, while polysemes and homonyms were "difficult" to learn. Higa's results indicated that synonyms, antonyms, and collocations were "difficult" to learn.

Context is the final aspect for analyzing the learning burden of L2 vocabulary. Context was not addressed by Laufer, but mentioned by Higa (1966). Higa stated that the basis for contextual learning was word association. However, Higa also cautioned that if the only purpose for use of context is to promote vocabulary development, then context may be ineffective.

Vocabulary and Materials

The first division of this chapter has focused on aspects of L2 vocabulary development and reading, which this researcher has considered essential to the analyses of data in this study. The second division focuses on the nature of L2 reading materials. It will be divided into two sections. First, how materials and reading have been perceived historically in L2 methodology, and second, the nature of children's literature for ESL adults' vocabulary development.

Historical Overview

It is important to provide a brief history of L2 methodology because there have been shifts in emphasis which have influenced perceptions of L2 reading, reading materials, grammar, and vocabulary development. These changes are relevant to this study.

Celce-Murcia (1991) summarized L2 methods since the 1940s. The following discussion presents highlights of her summary, and comments in relation to this study. During the 1940s and 1950s, the predominant model of L2 instruction was Grammar Translation. Lessons in this model focused on reading a passage, often from literature, as a basis for grammar and vocabulary development. Celce-Murcia stated that "prior to 1967, the centrality of grammar was never challenged, either as content for language teaching or as organizing principle for curriculum or materials" (p. 460). During the 1960s, Grammar Translation was replaced by Audiolingualism, which had a conversational focus, but retained the grammar. Celce-Murcia attributed this method to linguists Fries (1945) and Lado (1964) and described its focus that "Grammar was structured and sequenced from basic to complex, and vocabulary was limited in the early stages and

rarely went beyond the sentence level" (p. 460). Consequently, the change in the 1960s resulted in more conversational L2 reading materials, and moved away from the literature-based texts in Grammar Translation.

By the 1970s, another change occurred as grammar became de-emphasized due to a redefinition of "language" as communication, rather than as structure. The result of this change was a flood of communicative L2 methods, which culminated in a theoretical model of L2 acquisition, the Communicative Competence Model (Canale & Swain, 1980).

Since the 1980s and into the 1990s, the proficiency model of L2 acquisition has been considered. This model is based on the American Council on the Teaching of Foreign Languages (ACTFL, 1986) proficiency guidelines. The ACTFL guidelines concept originated during the 1970s as an expansion of the government's Foreign Service Institute's (FSI) assessment of oral proficiency. Since the 1970s, the guidelines have been expanded to include proficiency guidelines for other language components for reading, writing, and listening proficiencies.

This historical overview of L2 methodology contributes several relevant points to this study. However, it is first necessary to clarify what is intended, and what is not intended by this analysis. My primary purpose has been to provide an historical background on a particular point: namely, that L2 methodology has de-emphasized certain aspects of L2 acquisition (i.e., reading, grammar, vocabulary and literature) by stressing other aspects (i.e., writing, speaking and listening). However, this view did not intend to imply that reading has been absent either from L2 methodology or the classroom since the 1970s. Neither did this survey intend to ignore the many L2 reading research contributions, some of which have been mentioned in this and the preceding chapter, since

the 1970s. For example, Krashen (1985a) has contributed both indirectly and directly to L2 reading theory and L2 reading research. As previously discussed, Krashen's Input Hypothesis and his Affective Filter Hypothesis indirectly relate to L2 reading theory because both hypotheses are general L2 acquisition theories, which refer to all language modes, including reading (Krashen, 1985a). Briefly defined, the Input Hypothesis indicates that in order for language acquisition to occur, input should be comprehensible but slightly above a learner's competence (i.e., i + 1). The Affective Filter Hypothesis relates to motivation in learning a second language, in that acquisition is best when the affective filter is lowered, because the learner is more receptive.

Krashen's research on Free Voluntary Reading (FVR) is directly related to L2 reading research (Cho & Krashen, 1994; Krashen, 1985b; 1989; 1993; Polak & Krashen, 1988). Because this study is learner-driven in that subjects self-selected their books and read in their leisure time, Krashen's FRV studies relate to this study. Krashen concluded that while FVR does not replace a language program, FVR did contribute to the development of language abilities, such as vocabulary, reading comprehension, grammar, writing style, and spelling.

Finally, this historical survey of L2 methodology concludes by presenting specific points which are important to this discussion based on a shift in emphasis since the 1960s. This shift was in reaction to Grammar Translation that resulted in changes which affected areas of L2 methodology in reading, grammar, vocabulary and materials.

First, reading had been de-emphasized in favor of oral fluency. Fitzgerald (1995) remarked that L2 reading lacks a clear model, in that most models are based on orality

and on L1 reading models. Fitzgerald emphasized that reading in a second language requires different skills.

Second, grammar had also been devalued due to its association with Grammar Translation, and the redefinition of language. Although grammar was a component in the Communicative Competence Model, it has not been a strong emphasis in the proficiency model.

Third, the de-emphasis of reading and grammar has also detracted from L2 vocabulary research. Jones (1995) referred to decades of neglecting vocabulary. Seal (1991) cited a comment by Meara, that vocabulary had received "short shrift" (p. 197). Allen (1992) also regretted the lack of a unified view of L2 vocabulary. However, both Jones and Seal remarked about a resurgence of interest in L2 vocabulary recently.

Fourth, the use of L2 literature for reading was also devalued in reaction to Grammar Translation, the shift to language as communication, and a focus on functional texts. Widdowson (1985) expressed concern over this issue, when he commented that literature had mostly been purged from second language methodology. However, while literature has been de-emphasized, the value of literature in ESL has not been totally lost. There is evidence that ESL teachers have recognized literature for learning language (Widdowson, 1985), for point of view (McKay, 1982), and for background knowledge (Gajdusek, 1988). The importance of background knowledge for ESL readers is based on Rumelhart's Schema Theory (1980; Carrell & Eisterhold, 1987). Simply defined, schemata are scripts and plans which are the building blocks of cognition. Any culture contains schemata and concepts generated from events, traditions, and history, which are important for ESL readers to know. For example, background on the Civil War

provides context for ESL readers to understand today's issues and schemata which are related to the Civil War.

Until recently, studies using literature in an ESL context were found in two aspects. When the readers are children, the literature is most commonly children's literature (Elley, 1991; MacLean, 1990). When the readers are ESL adults, adult literature is generally used, but with strategies to cope with the adult genre (Gajdusek, 1988), or else short stories are used (Oster, 1989). However, there is a third category emerging: children's literature with ESL adults. While this is not as common, there is evidence that using children's literature with ESL adults in the context of family literacy is growing in acceptance (Flickinger, 1984; Holt, 1995; Silverman, 1990; Smallwood, 1992; Thistlewaite, 1994). This study has been designed to use children's literature with ESL adults in order to focus on some of the less emphasized elements of L2 methodology, such as vocabulary development and reading. It is an assumption of this study that the nature of this genre fosters the development of L2 vocabulary and increases interest and motivation for ESL adults to read.

Nature of Children's Literature

Children's literature is a vast genre. Consequently, this discussion will focus on aspects of the genre which are relevant to one purpose of this study: to develop a rationale for using the genre with ESL adults. Based on that purpose, this discussion will include the following: explain how this genre has been misperceived, analyze how specific characteristics of two subgenres, young adult books and picture storybooks, can address the shortcomings of the adult genre.

Gallo (1992) summarized several general assumptions about a work of literature, which have influenced perceptions about using children's literature with ESL adults. These perceptions may have added support to the view of L2 literature which developed in reaction to the Grammar Translation methodology of the 1950s. While Gallo's comments were written in an L1 young adult context, they also apply to an L2 context due to the nature of his analysis. This discussion paraphrases his most relevant points. First, if a book's theme is sophisticated, it isn't seen as young adult. Second, if literature is studied, it should be difficult. Third, if students can read it on their own, there must be little substance to it and is not worth teaching. Fourth, by equating longevity with quality, it denies quality in contemporary works, especially if it lacks sophisticated vocabulary, complex plots and sentences. Gallo stated, "Complexity does not equal greatness, nor does simplicity equal simplemindedness" (p. 24).

Young Adult Literature

Young adult (YA) literature contains two categories of qualities which recommend its use for ESL adults: inherent and unique qualities, and the universal or common qualities.

Unique qualities of the young adult subgenre include simplicity, size, and age. According to McKay (1982), simplicity answers the criticism of the inherent complexity of the adult genre's structure, culture, and style for ESL students. She indicated that simplicity can be accomplished in two ways. Either simplify a difficult and complex text that produces a "homogenized product which dilutes information" (p. 531), or use literature which is inherently simple. Children's literature is inherently simple. The young adult subgenre contains several aspects of simplicity which are important for ESL adults.

First, young adult books contain simplicity of language for students struggling with more sophisticated language (Probst, 1988). Second, it provides simplicity of ideas with more direct plots and fewer flashbacks or digressions (Flickinger, 1984; Silverman, 1990). Third, Cahill (1986) suggested these books for clarity of writing. Fourth, Thistlewaite (1994) commented that this subgenre enhanced reading success, self-esteem and enjoyment for ESL adults.

Size is another unique quality in children's literature in both young adult and picture storybooks. Size is an important quality because length is considered a drawback of the adult genre for ESL adults. Smaller size reduces the amount of text and time needed to read and to process L2 text. Other values of smaller textual size include the following. Thistlewaite (1994) stated that smaller size effected ESL adults' motivation to read and provided a sense of accomplishment. McKay (1982) noted smaller casts, while more obvious relationships between characters, and between characters and events were mentioned by Flickinger (1984) and by Silverman (1990).

Age is also unique to young adult literature due to the younger age of some main characters and narrators (Probst, 1988; Stover & Tway, 1992). ESL adult readers can gain insight into native speaker problems and experiences which are common to this age group (Flickinger, 1984; Silverman, 1990). However, it has been my experience in using children's literature with ESL adults for six years, that the younger age of some characters has not been a problem for several reasons. First, the key has been in preselecting books appropriate to adult readers in content (see chapter five for selection criteria). Second, my collection included a wide range of topics, genres, and reading levels, which provided ESL

adults with many options. Finally, any books which were perceived to be inappropriate were removed from the collection.

Universal qualities of young adult literature include needs, points of view, and story. These qualities span ages and cultures. Hipple (1992) indicated that young adult novels have come of age, in that they reflect common themes such as justice, war, the struggle for love, acceptance, and understanding, which are part of the human experience. Other common needs include the need to develop positive relationships, concerns about the future, and the need to find one's place in society (Stover & Tway, 1992). ESL adults, who are studying here, may be separated from their country and family. Young adult literature speaks to their need to understand their new setting.

Point of view provides another universal quality of young adult literature. This is seen in both cultural and the characters' point of view. Several studies advocated young adult books for teaching different aspects of this quality. First, cultural perspective and tolerance for others was advocated by Stover and Tway (1992); different aspects of American culture for ESL adults by McKay (1982); cultural relativity and assumptions by Gajdusek (1988); and regional distinctions and minority viewpoints by Flickinger (1984). Perspective is also applicable to teach a character's point of view, to show characters dealing with universal problems (Probst, 1988), because it encourages adult readers to become involved and to respond to their reading (Gallo, 1992; Hancock, 1993). Reader response through the perspective of characters provides a fictional and self-contained world, and is less threatening for L2 adults (Oster, 1989; Silverman, 1990).

Theme is the third universal quality in young adult literature. Thistlewaite (1994) referred to Carr's view from 1984, that children's literature is moving closer to the adult

world. Themes such as alienation, friendship, family, death, drugs, and ethical dilemmas are now found in young adult books. Probst (1988) also added history as themes for vicarious experiences.

Story or narrative is the fourth universal quality of young adult literature, because story is basic to all cultures with or without a written tradition. MacLean (1990) cited Chamber's remark that "story is the fundamental grammar of all thought and communication" (p. 244). Rosen (1986) stated that the power of story engages thought and feeling, is embedded in other discourse, and is basic to the operation of the mind. The power of stories to engage readers relates directly to ESL adults to motivate them to read.

Picture Storybooks

Although picture storybooks share common qualities with young adult literature in size, simplicity, theme, and story, they are a unique and complex subgenre. Like young adult literature, there are misperceptions about this subgenre in relation to reading. Newkirk (1992) attributed this to three cultural and Western biases. One bias is toward print to the exclusion of the visual. The second bias is against pleasure in reading, which our culture has absorbed from the Puritan work ethic, by labeling reading as work. The third bias is against brevity in contrast to the Asian perspective, which values economy and brevity as the ultimate skill of the writer.

There are many values for using picture storybooks with older and adult readers that extend to ESL adults. They provide comprehensible input and story lines, are contextually whole, and illustrations have universal appeal for ESL adults (Smallwood, 1992). Second, they provide enjoyment and personal experiences (Bishop & Hickman, 1992). Third, picture storybooks teach art for all ages (Szekely, 1990), and sharpen

sensibilities by reading illustrations (Cianciolo, 1976). Fourth, they are also for reluctant readers (Ludlam, 1992) and ESL beginners (Holt, 1995).

However, there is an additional value in the unique nature of this complex subgenre, because the verbal and visual languages interact within its pages. These languages provide a rich source for teaching, for vocabulary development, and for discussions. Besides the orthographic code, verbal languages include the literary language and the narrative. Literary language found in picture storybooks includes many literary devices, such as analogy, imagery, tone, and symbol (Hall, 1990). Narrative language also involves character development in relation to whether the character changes or remains static, and how these traits are revealed by the artist (Lukens, 1990).

The second language found in picture storybooks is the visual language found in the elements of art, and in the visual and physical aspects of telling a story. Examples of art elements include the use of color, line, and perspective to convey meaning (Cianciolo, 1976; Huck, Hepler & Hickman, 1993; Nodelmann, 1988). The visual and physical aspects of telling a story include focusing elements, such as perspective, angles, visual weight, size of background, blocking, and sequence. These elements indicate how the visual creates meaning for the story (Nodelman, 1988; Schwarcz & Schwarcz, 1991).

Comments on Using Children's Literature

While young adult literature and picture storybooks are a rich source of second language reading materials for adults, not all books in this genre are advisable for adults. Studies which have advocated this genre for ESL adults, have also cautioned that book selection is crucial and have suggested criteria (Silverman, 1990; Smallwood, 1992)

Thistlewaite, 1994). Therefore, this study also includes a composite of their selection criteria for ESL adults and is located in chapter five.

Summary

The evidence for the importance of vocabulary development for second language acquisition has been emphasized through two dimensions: the relationship of L2 vocabulary development to reading, and the relationship of L2 vocabulary to a specific type of reading material, children's literature. The importance of L2 vocabulary development was shown to be crucial in building the foundation to reach the threshold for reading a second language. However, in the history of second language methodology, the approach to L2 vocabulary development, reading, and materials had been associated with the Grammar Translation and Audiolingual methods. These methods were criticized in that they did not go beyond the sentence level (Celce-Murcia, 1991). The value and nature of two subgenres within children's literature were also discussed for their application and use as L2 reading materials for ESL adults.

Finally, the importance of these two dimensions of reading and materials for L2 vocabulary development is found in their complementary relationship to each other for ESL adult readers. The word knowledge is necessary for the foundation to read in the second language at the sentence level. Children's literature provides interesting materials which encourage adult readers to move beyond the sentence level to the meaning and discourse level. The result is that ESL adults develop L2 vocabulary and motivation to read in the target language.

CHAPTER III

METHODOLOGY

Subjects

The purpose for this study was to examine the nature of L2 vocabulary development of ESL adults for reading a second language, to examine the characteristics of the L2 threshold of reading, to compare L2 vocabulary development and book choices between individuals and vocabulary levels, and to develop a rationale for using children's literature with ESL adults.

The selection of the six ESL adults was purposeful and was based on the above purposes. Purposeful sampling is characteristic of qualitative research and is governed by relevancy to the study, in contrast to random sampling, which is characteristic of quantitative research (Erlandson, Harris, Skipper & Allen, 1993). First, six (6) ESL adult subjects were selected from a pool of twenty-four volunteers attending English classes at the Family Resource Center (FRC) at Oklahoma State University. This center provides a variety of services for students and their families, and is centrally located in the university housing area. Services at the FRC include cultural and social functions, and weekly ESL classes for internationals most of whom are women. A formal written request was sent to the coordinator and assistant coordinator of the FRC facility to explain the study, to request permission both to ask for volunteers from their ESL classes, and use the center to conduct the study.

Second, the selection of the six ESL adults was based on the purpose for this study in relation to the L2 threshold of reading. The threshold concept is related to an assumption of this study that a vocabulary foundation is necessary to read well in a second language. The threshold concept is also part of an L2 Linguistic Threshold Hypothesis studied by L2 researchers (Alderson, 1984; Bernhardt & Kamil, 1995; Carrell, 1991; Clarke, 1988; Lee & Schallert, 1997).

However, these L2 studies did not identify a specific level for the threshold of L2 reading. This study was designed to specify a grade equivalent for the L2 threshold at a fourth grade vocabulary level. This level was implied in L1 research by Aaron (1991), when he mentioned the existence of a "reversed relationship between decoding and comprehension skills before and after the third grade" (p. 131). Prior to third grade, the focus of learning was on the "mechanics" of reading. Beyond third grade, the focus of reading shifted to comprehension and content. This study hypothesized that the fourth grade vocabulary level (referred to hereafter as level 4 in this study) would represent a similar phenomenon for ESL adult readers.

Therefore, selection of participants was in relation to this threshold level at the fourth level. ESL adults, who volunteered for this study, were interviewed and pre-tested with a battery of four L2 vocabulary tests to determine their base vocabulary levels in relation to the threshold. The scores of all volunteers were categorized in relation to the L2 threshold at level four. Those who pre-tested below the fourth level, or levels one through three, were designated "beginners" and assumed to be below the threshold. Based on a pilot study, it was determined to limit the selection of beginners to levels one to three. In other words, individuals who pre-tested below level one were not selected.

Those who pre-tested at or above fourth level, were intermediate or advanced ESL readers, assumed to be above the threshold. Three ESL adults were then selected from each group (below and above the threshold) for participation in this study.

Reference to each participant in this study is anonymous. Subjects chose a pseudonym to be known only to the researcher and participant. Subjects were assured of their anonymity during the oral explanation of the study when asking for volunteers, and in writing when subjects were given a consent form to read and sign.

Finally, the following subjects selected for this study are briefly described with their chosen pseudonyms, code numbers (#), first languages, and placement categories in relation to the hypothesized threshold at level 4. Category refers to subjects' placement according to the number of test scores above or below the L2 threshold of reading, hypothesized at a fourth grade level, or level four. There are three categories: category 1 is above the threshold with either three or four test scores above level four; category 2 is at or above the threshold with two test scores above and two below level four; and category 3 is below the threshold with three or four test scores below level four.

There were three subjects below the threshold who were designated beginners in category 3: Joan (#16), Katie (#18), and Sarah (#14). Joan and Katie spoke Chinese; Sarah spoke Portuguese. Joan had one vocabulary test above level 4 and three below (1-3). Katie and Sarah both had four tests below the threshold and none above (0-4).

The three subjects above the threshold were in category 2 and 1. There were two subjects in category 2: Rosa (#3) and Margaret (#17). Both spoke Chinese with two tests above and two tests below the threshold (2-2). They were designated as intermediate and

considered to be at or above the threshold. One subject, Judy (#4) pretested at category 1 with four tests above level 4 (4-0), and was designated as advanced. She spoke Thai.

Instruments

This study had two types of instruments: surveys and L2 vocabulary tests. Surveys were given as oral interviews at the beginning and concluding phases of the study. These surveys were written by the researcher and are located in Appendix A. The purpose for the initial survey was to gather data on subjects' L1 and L2 reading interests, backgrounds, and education. A final survey was conducted at the conclusion of the study to determine changes in subjects' interest in reading a second language as a result of the study, as well as their perception of their L2 vocabulary development and their view of the study.

Vocabulary tests were the second type of instrument used in this study. A battery of vocabulary tests was given in English to all volunteers as pretests for selection and placement in the study. Three tests had different forms, which were given as posttests to the six participants during the final phase of this study.

The battery of vocabulary tests included the following: the Steiglitz Informal Reading Inventory (SIRI, 1991) vocabulary subtests, Form A and Form B; the Woodcock Language Proficiency Battery-Revised (WLPB-R,1991) vocabulary subtest; the Gates-MacGinitie Reading Test (1989) vocabulary test; and the spelling subtest, level I and II from the Wide Range Achievement Test-Revised (WRAT-R,1984).

There were two key purposes for the test choices in this battery. The first purpose was the need for grade equivalents. Grade equivalents report test scores according to the grade levels for those results. Grade equivalents were important to the L2 threshold of

reading, test sequence, and correlation of subjects' vocabulary levels to the reading levels of the books. Primarily, the L2 threshold of reading necessitated grade level equivalents. Researchers have dealt with this concept in different contexts in L2 studies and with different terms (Alderson, 1984; Alderson & Urquhart, 1984; Bernhardt & Kamil, 1995; Carrell, 1991; Clarke, 1988; Cummins, 1978; van Ek, 1987; van Ek & Trim, 1984; Verhoeven, 1994). The point for this study is that these researchers have not placed a numerical value on this phenomenon. This study hypothesized a fourth level equivalent for the L2 threshold of reading. Therefore, in order to select and place subjects in relation to the threshold at the fourth level, it was necessary to use testing instruments with grade equivalents. All vocabulary tests in this battery had grade equivalents.

Next, grade equivalents were important for the test sequence in this study because the WLPB-R vocabulary test required a starting point according to grade level. The SIRI provided a "rough estimate" of grade level which then could be used as a starting point for the WLPB-R.

Finally, grade equivalents were important for the reading levels of the books. It was the original intention to correlate subjects' vocabulary levels to the reading levels of the books. However, due to the unexpected reading levels of the books, it was not possible to correlate them as had been planned (i.e., some picture books had high reading levels, and some young adult books had low reading levels). This was mentioned in the limitation section in chapter one. Because grade equivalents or reading levels are also commonly listed on children's books as "RL", and are integral to readability formulas, it was important to use vocabulary tests with grade equivalents.

The second purpose for the test choices in this battery was to collect preliminary L2 vocabulary data and to acquire the following different types of data. Data on word recognition and pronunciation skills were assessed orally by reading vocabulary in the context of sentences on the SIRI (1991). Form A was used as a pretest, Form B as a posttest. This test was administered individually. Although this test was not standardized, it was stated as usable with second language learners.

The WLPB-R (1991) synonym and antonym vocabulary tests provided data on semantically related words, a category which was identified by Higa (1963) as difficult for L2 learners. This test was standardized with grade equivalents for a combined total score on synonyms and antonyms and was administered individually.

The Gates-MacGinitie (1989) vocabulary subtest provided data on silent word recognition and word identification skills. Readers must understand the underlined word in phrases in order to choose the correct meaning in the multiple-choice format. This test was standardized with grade equivalents, and was group administered. This test has different forms for different grade levels, so that one test was used as a pretest and another as a posttest.

The spelling subtest for the WRAT-R (1984) provided preliminary clues to the possible source of vocabulary learning difficulties. These difficulties can originate in subjects' first language (interlingual) or in the target language (intralingual). This spelling test was standardized with grade equivalents and was group administered. There were two forms of this test, levels I and II. For purposes of this study, level I was used as a pretest, and level II was used for the posttest.

Materials

Children's literature was the major source of L2 reading materials for ESL adults at all vocabulary levels in this study. During the study, some subjects indicated a need for additional materials in grammar and vocabulary. Due to the quantity of data in this study, these materials could not be included in the analyzed data. However, because one subject (#17) used the TOEFL vocabulary exercises (Matthieson, 1993) in such a unique way, which was relevant to ESL vocabulary development, this aspect is mentioned briefly in chapter five as part of the discussion.

There were four subgenres within children's literature which were used in this study: both historical and contemporary fiction, biography, and informational books. There were two purposes for using these categories. One was to develop background in the target language culture and was based on Schema Theory (Carrell & Eisterhold, 1987; Rumelhart 1980). This theory relates to reading in a second language because ESL adults need background in the target culture in order to understand texts. These categories of children's literature provide a rich and varied source of cultural background. The second purpose for these categories related to the development of motivation to read a second language. ESL adults are interested in our history, people, and culture. These categories provide interesting reading, topics for group discussions, and increase motivation to read.

Design

This case study was originally designed to be conducted in ten weeks in three phases. However, due to various delays in the first phase of pretesting, it was conducted over16 weeks during the 1997 spring semester at Oklahoma State University. This design

connects the purposes, hypotheses, and assumptions of this study. Each phase was designed to collect data related to these aspects of the study.

Initial Phase

The first phase of this study was designed to be completed in one week, but, instead, it required four weeks. The FRC had graciously allotted 13 hours per week on Mondays, Wednesdays, and Fridays for this study. However, some tests required longer to administer than had been expected, and the group tests required several sessions to accommodate the volunteers' schedules. Therefore, rescheduling was needed for some tests and for some individuals in order to interview and test all twenty-four (24) volunteers both individually and in groups. This phase involved oral interviews and pretesting of all volunteers, and the selection and placement of six ESL adults in this study. There were specific purposes for the interviews and tests. The purpose for the oral interviews was to gather background data on the learners' L1 and L2 reading preferences, history, and education.

There were two purposes for the battery of L2 vocabulary tests. The first purpose was to establish a base L2 vocabulary level in relation to the threshold of reading a second language. This threshold was a key concept in the assumptions, the purposes, and hypotheses of this study. These are briefly paraphrased as follows. In the assumption, the L2 threshold was hypothesized at a level four. In the purpose, the threshold was important for examining L2 vocabulary development for reading, characteristics of the L2 threshold, and for comparing L2 vocabulary development between individuals and vocabulary levels. This L2 threshold level was also central to the hypotheses paraphrased that: there would be differences in L2 vocabulary development, book choices, and

dictionary dependence below and above the threshold; and there would be specific characteristics to the L2 threshold.

Because the threshold was a key concept to this study, it was necessary to establish a base L2 vocabulary level in relation to this threshold for selection and placement of participants in this study. This base level was established through a battery of L2 vocabulary tests. These pretests included the following: the Form A vocabulary subtest, from the SIRI (1991); the WLPB-R (1991) vocabulary subtest; the Gates-MacGinitie Reading Test (1989) vocabulary test; and the spelling subtest, level I from the WRAT-R (1984).

Scores could not be averaged for a level equivalent due to differences in measurement scales, but were categorized. These categories were divided into 2 groups in relation to the threshold at the fourth grade level. Volunteers, whose L2 vocabulary scores were below level four (i.e., one to three), were designated "beginners" and assumed to be below the threshold. Volunteers, whose L2 vocabulary scores were at or above fourth grade, were designated "advanced" readers assumed to be at or above the threshold. Three subjects were selected from each group for participation in the study: three beginners and three advanced ESL adults. Those below grade one were not selected.

The second purpose for the battery of L2 vocabulary tests was to collect preliminary L2 vocabulary data. Each test was selected for different L2 data. The SIRI provided word recognition and pronunciation data; the WLPB-R gave data on synonyms and antonyms; the Gates-MacGinitie supplied silent reading data; and the spelling test

identified sources of L2 vocabulary problems (i.e., L1 or L2). This battery was designed to develop a base for each subject's L2 vocabulary background at the start of the study.

Reading Phase

The second phase of this study was the reading phase and was designed to be completed in eight weeks for each subject. There were two aspects of this study: individual and group. The researcher met with each subject weekly for one hour, and with all subjects weekly for one hour. The purpose for this phase was to collect additional L2 vocabulary data, and to identify and observe patterns of L2 vocabulary development in relation to the threshold of reading.

The important point to remember for this phase is that it was learner-driven. This means that subjects selected their reading or L2 input, which determined L2 vocabulary data and responses collected from the subjects. In other words, written L2 data and oral responses emerged out of the subjects' book choices. The learner-driven nature of this phase was operationalized as follows. Subjects (1) chose reading materials from the researcher's collection of children's literature, signed books out and in on class weekly record sheets; (2) wrote lists of unknown L2 vocabulary with definitions per book in their choice of language; (3) some wrote journal responses to books, according to ability, and (4) presented their books orally to weekly discussion groups, according to ability.

Data collected during this phase included L2 written data from the subjects' L2 vocabulary lists with definitions written in subjects' choice of language. These definitions were written either in L1, L2, or a combination of L1 and L2. The researcher also contributed some data during this phase by keeping reading logs and observations written following each individual and group session.

Because the individual and group sessions differed in their nature and purpose, as well as in the researcher's role and focus of observations, these two aspects will be discussed separately to clarify this phase of the design.

Individual Sessions

First, the individual sessions were learner-driven in that the focus of the sessions was on L2 written data collected from subjects. Second, the purpose for the individual sessions was for the researcher to clarify L2 data and observe subjects individually on a weekly basis. In other words, these sessions allowed the researcher: (1) to collect subjects' written L2 data; (2) to identify specific L2 vocabulary needs and discuss these with subjects; (3) to discuss books and reading with subjects; and (4) to make individual observations on patterns of L2 vocabulary development and reading.

Third, the researcher's role in the individual sessions resembled a tutor, in that it was necessary to discuss L2 written data with subjects in order to identify problems and clarify data. Therefore, the researcher needed to add some L2 input to answer subjects' language questions.

Group Sessions

The group sessions were also learner-driven, but the focus was on oral discussions of subjects' reading selections. The purpose for the weekly sessions was to provide opportunities for all participants to discuss their reading in a group setting, to hear discussions about other books, and to choose and return books from the collection.

The researcher's role in the group sessions was a facilitator and observer of participant-led discussions. In other words, subjects chose their books each week, and presented their reading to the group the following week. The researcher facilitated the

discussions about the subjects' reading and asked questions to generate discussions on topics related to the books. However, during the weekly groups, subjects were not required to present their reading before they were comfortable with oral presentations, but were encouraged to try. In addition, as facilitator, the researcher provided L2 input to explain, clarify, or discuss vocabulary or grammar either orally or on the board as needed.

The researcher's observations focused on the qualitative aspects of how each adult responded to their reading, such as enthusiasm when presenting their book to others. Other observations included the interaction between subjects in the discussions about the books, and the effects on book choices from peer comments on the books. In other words, if a subject recommended a book, did others choose it based on positive comments?

Final Phase

Interviews and posttests were conducted during the final phase which was completed during the last few weeks of the study. This phase included two purposes once each subject completed their 8 weeks. The first was to collect data from oral interviews on subjects' perceptions of their L2 vocabulary development, interest in reading as a result of the study, and their view of the study. The second was to determine changes since pretests in subjects' L2 vocabulary levels and categories in relation to the threshold.

Posttests included different forms for three of the tests. This battery included: Form B, vocabulary in context, from the SIRI (1991); the WLPB-R (1991) synonyms and antonyms subtests; Gates-MacGinitie Reading Test (1989) vocabulary subtest; and level II spelling subtest from the WRAT-R (1984).

Procedure

The procedures followed the three phases of the study: initial, reading, and final for the ten week case study.

Initial Phase

The initial phase was conducted during the first few weeks of the study and involved interviews and testing. First, all volunteers were interviewed orally to determine their L1 and L2 reading preferences, and reading and educational backgrounds. Following these interviews, a battery of L2 vocabulary tests was administered to all volunteers for selection and placement purposes. Two tests were administered individually, and two were administered to all volunteers as a group. The interviews and the first two vocabulary tests were administered in roughly one hour, but some required additional time.

The first two tests were administered individually. The first test was Form A, vocabulary in context, subtest from the SIRI. This test was used to establish a rough estimate of L2 vocabulary level in order to determine a starting point for the second test. The second test was the synonyms and antonyms vocabulary subtests from the WLPB-R..

The third and fourth tests were administered to all volunteers as groups. The third test was Gates-MacGinitie silent reading vocabulary test in a multiple choice format. This test was timed and required 35 minutes. The fourth test was the level I spelling subtest from the WRAT-R.

Following the testing, all scores were categorized for each volunteer to determine vocabulary levels in relation to the threshold. These scores were divided into two groups, beginners and advanced. This grouping related to the L2 threshold for reading, which was

hypothesized at the fourth level and was an assumption of this study. In other words, volunteers who pretested at L2 vocabulary levels from levels one to three were designated "beginners" and were assumed to be readers below the threshold . Volunteers who pre-tested at L2 vocabulary levels at or above level four were designated "advanced" and were assumed to be above the threshold for reading. Following this grouping six subjects were selected for this study: three ESL adults from the beginners group, (#14, #16, and #18), and three from the advanced group (#3, #17, and #4). These categories for the subjects became their placement in this study.

During the reading phase, all subjects were given a written consent form to sign. The purpose of this form was first, to assure each subject that their identity would be protected through their chosen pseudonym; second, to ask for their permission to use their language data; and third, to thank them for participating in the study. An example of the consent form is located in Appendix D.

During the selection and placement of subjects, the researcher contacted the Family Resource Center for available times to use their facility for this study and then determined a time for individual and group sessions with each subject.

Reading Phase

The reading phase was designed for each subject to receive 8 individual and group sessions. The researcher met individually with each subject for one hour weekly, and for one hour collectively with all subjects for group discussion. It is important to note that while neither attendance nor participation in group discussions was mandatory, to account for beginners who felt weak in speaking or listening skills, each subject was encouraged to try and made to feel welcome.

One further comment needs to be made about the group sessions. Because the Family Resource Center is a public facility, other ESL adults expressed interest in reading the books and attending the group sessions. Because the data to be analyzed in this study focused on the vocabulary lists and reading responses, the researcher did not restrict attendance in the groups to only subjects selected for the study.

This phase was conceptualized as learner-driven in that the subjects' choices of reading materials determined the remaining aspects of the study. The reading choices determined: (1) the focus of group discussions; (2) written L2 data collected from subjects; and (3) the focus of individual sessions, based on the books and written data.

Step One

This section describes aspects of the procedures in terms of steps. However, these steps are theoretical and recurring, with the exception of the introductory sessions. They are not necessarily chronological. The aspects are presented as steps to clarify the procedures.

The first aspect was the introductory week for the group and the individual sessions. The introductory group session was conducted as follows. First, each subject introduced themselves to the group. Second, the researcher explained how the group would function and the following procedures. (1) They would choose books from the researcher's collection to read at home. (2) Although they were encouraged to keep a reading log of all the books read, none did during the study. (3) They were encouraged to present their reading to the group the following week. However, it was emphasized to them that they were not required to discuss their reading orally, but were encouraged to try when they were ready. (4) They were asked to keep vocabulary lists of unknown L2

words from their reading with definitions, and were encouraged to share new words with the group. (5) They were also encouraged to write responses to reading, according to ability.

Third, the researcher introduced the children's literature collection, which would be available each week. The researcher discussed several examples of books, and also the procedures for taking them out and returning them. These procedures included signing their name and title of the book on the class record sheet under the appropriate columns. Examples of both the class and individual reading logs kept by researcher are located in Appendix B.

Fourth, the researcher encouraged subjects to ask questions about their vocabulary and their reading during the group sessions. Fifth, subjects selected their books for the next week. They were also reminded to bring their vocabulary lists each week to share specific new words with the group.

The second week of the study was also introductory for the individual sessions. The researcher explained how the individual sessions would function, and discussed the test results with subjects. First, the researcher explained to each subject that they would turn in written work (vocabulary lists and summaries) during these sessions and also explained the purpose for written work. These purposes included building their L2 vocabulary, pinpointing vocabulary difficulties, helping them with writing skills, and opportunity to have specific questions answered about their reading, writing and vocabulary. Second, the researcher discussed each subject's vocabulary test results with them in order to clarify the data.

Step Two

During this step subjects met individually with the researcher for eight sessions and in a group on a weekly basis.

The group sessions followed the pattern described in the introductory week in that subjects had the option of presenting their books to the group. The researcher was a facilitator-observer of discussions based on the topic of specific books presented. As a facilitator, the researcher also encouraged subjects to share vocabulary, comments, or questions about the books with the group. Consequently, at times it was necessary to explain and clarify additional L2 vocabulary or grammatical input with the group either orally or on the board.

The structure of the weekly sessions was as follows: (1) subjects shared books and new vocabulary with the group; (2) discussions were based on the books and language questions; (3) any additional L2 input was either discussed orally or written on the board; and (4) subjects chose and returned books, and signed the class record sheet for each week.

The researcher observed the group sessions and focused on (1) interactions between subjects in relation to book choices, vocabulary, and discussions; (2) enthusiasm for reading selections, and (3) any effects on book choices from peers' comments. These observations were part of the researcher's notes and documentation of the proceedings of each class which were written following each session.

The individual sessions also closely followed the instructions given during the introductory week. Each session was learner-driven and dependent on subjects' reading choices and L2 written data in response to the books. During this aspect the structure was

as follows. First, each subject turned in any written L2 data. This included the L2 vocabulary lists with definitions from a dictionary if needed, and written L2 responses to reading. This L2 vocabulary was in English, while definitions were either in L1, L2, or L1 and L2.

Second, the researcher discussed the written L2 data and reading with each subject. This step of the procedure is where the researcher functioned as a tutor. Although the discussions were related to collecting data, discussions were also focused on identifying the specific L2 vocabulary and language needs. In other words, this step allowed the researcher to clarify the L2 data, but also provided opportunities for the subject to ask questions, and have their L2 language concerns answered. Consequently, the researcher supplied additional L2 data when necessary

Third, the researcher also functioned as an observer. During the individual discussions about L2 data and reading, the researcher observed patterns of L2 vocabulary learning and reading. These observations were part of the documentation and notes from each individual session.

Final Phase

The final phase of this study included conducting final oral interviews and administering posttests. This phase was designed to be conducted during the last weeks of the study. The purpose for the interviews was to collect data on each subject's self-perceptions of L2 vocabulary development, changes in interest in L2 reading as a result of the study, and comments about the study.

The purpose for the posttests was to determine changes in L2 vocabulary levels since the pretests. These changes were important to analyze where each subject was at that point in relation to the threshold.

Three posttests were different forms of the pretests. The posttests administered during this phase of the study included: Form B, vocabulary in context, from the SIRI; the WLPB-R synonyms and antonyms vocabulary subtests; silent reading vocabulary subtest from the Gates-MacGinitie; and level II spelling sub-test from the WRAT-R. The first two tests were administered individually and required about an hour. The second two tests were administered in groups. The Gates-MacGinitie was the only vocabulary test which was timed and required 35 minutes.

Finally, following all posttests, a party was given for the participants in order to recognize their efforts by awarding each a certificate provided from the Family Resources Center.

Pilot Study

Several aspects of this study were pretested in an informal pilot study from January to April, 1996 with ESL adults who were attending classes at the Family Resource Center at Oklahoma State University. The purpose for the pilot study was to pretest the survey, the sequence of assessment instruments for placement of subjects in relation to the threshold, and to assess the L2 language needs of beginning levels.

The survey instrument was written in English with questions regarding ESL adults' L1 and L2 reading preferences and backgrounds. It was first administered to a group of ESL adults. This survey used a silent reading format and required written responses in English. Many students had difficulty with this format, presumably due to low L2 reading

levels. Consequently it was determined that this instrument would be ineffective for the purpose of this study. As a result, it was decided that the survey should be administered orally as an interview and that the number of questions should be reduced. The shortened form was then administered orally to four ESL women. The change in length and mode of administration was effective and was used in this study. The shortened form is located in the appendix section.

After administering the revised survey as an oral interview, two vocabulary tests were administered to four adults. These two tests were Form A, vocabulary in context, subtest from the SIRI, and the synonyms and antonyms vocabulary tests from the WLPB-R. This combination of tests served as a "rough estimate" of vocabulary level for placement purposes for these subjects. For example, one adult placed highest on the WLPB-R at a grade equivalent of "3.6", and she was able to read more. Another adult tested very low at a primer level on the SIRI and was unable to complete the WLPB-R. She was unable to read picture storybooks, except to pick out specific words in the text. The other two adults were in a middle range from second to third grade equivalents. These two adults had a mixture of language needs and reading abilities.

The results of this pilot study facilitated the development of this study in two ways. First, the four ESL adults exhibited individual diversity in their language needs. This diversity contributed to the decision to use a case study design which would allow the development of a broader picture of individual diversity in L2 vocabulary development. Second, the subject who tested below first grade at the primer level, contributed to the decision to limit the beginner's level to levels one to three in this present study. In other

words, volunteers who pretested below level one were not selected because they would have difficulty with reading the books.

Data Collection

The collection of data was related to the purposes and hypotheses of this study. The purposes were: to examine the nature of L2 vocabulary development of ESL adults for reading a second language, to examine the characteristics of the L2 threshold of reading, to compare L2 vocabulary development and book choices between individuals and vocabulary levels, and to develop a rationale for using children's literature with ESL adults. The hypotheses in this study are paraphrased as follows: there should be a difference in the nature of vocabulary development, book choices, and dictionary dependence of ESL adults below and above the threshold; and there should be specific characteristics to the threshold of reading.

The type of data collected was related to the purposes and hypotheses because qualitative and quantitative data were needed to test the hypotheses. Therefore, data collection focused on qualitative and quantitative aspects of subjects' L2 vocabulary development and difficulties in reading, and on their book choices. Data were collected mostly from subjects' written vocabulary lists with some oral data, but were also taken from the researcher's individual reading logs and observations.

Data were collected during all phases of the study. During the initial and final phases, oral data were collected from interviews, and written data were collected from L2 vocabulary tests. During the reading phase, written L2 data were collected from subjects' responses to their reading. These data included the following: subjects' L2 vocabulary lists of unknown words in English with definitions in subjects' choice of language, reading

logs kept by researcher, and some written summaries in response to reading. Supplementary oral data were collected during the reading phase from researcher's notes, observations of group discussions, and individual sessions.

Both qualitative and quantitative data were drawn from the collected data to test the hypotheses and to paint a picture or profile of L2 vocabulary development for each ESL adult at different levels. These pictures were based on preliminary data from vocabulary tests during the initial phase, were expanded during the reading and final phases, and were part of data analyses. The following section discusses how both types of data were analyzed.

Data Analysis

Analysis of the data was related to the purposes and hypotheses of this study. Analyses included both quantitative and qualitative measures according to vocabulary levels in relation to the threshold for reading, hypothesized at level four.

Note that in order to reduce the quantity of data to be analyzed, it was necessary to limit the data for analysis to the vocabulary lists and reading logs. Other written data such as summaries of books, grammar, and other vocabulary exercises were excluded from analysis, but could be used when necessary to supplement or clarify specific points.

Quantitative Analysis

Quantitative analyses were limited to frequency, percentage and comparison due to the small number of subjects. Vocabulary tests, vocabulary lists, and reading choices were analyzed quantitatively. Vocabulary tests were analyzed for differences between pretests and posttests for subjects and levels.

The vocabulary lists and reading choices were analyzed quantitatively for subjects and levels in the following ways. First, vocabulary was analyzed by subjects and levels for: (1) quantity of new words; (2) frequency and type of linguistic word class or syntax (nouns, verbs, etc.); and (3) phonological features of word length (number of syllables) and pronunciation (frequency of a specific initial /s/ consonant cluster).

Second, definitions from the vocabulary lists were analyzed for subjects and levels for: (1) quantity of definitions; (2) language of definitions (frequencies of L1, L2 or both L1 and L2; and (3) morphemic and semantic aspects of definitions (synonyms and antonyms; types of morphemes).

Third, reading choices were analyzed by subjects and levels for: (1) total frequency of books read; (2) frequency at different reading levels and genres; and (3) frequency of visual (picture books) and less visual (young adult books).

Qualitative Analyses

First, qualitative analyses included profiles of individual subjects, group levels, and threshold. These profiles incorporated and expanded the quantitative analyses. Specifically, profiles included patterns of individual and group L2 vocabulary, reading behavior, and book choices that emerged during the study.

Second, books chosen by the subjects were analyzed and categorized by reading level, length, and genre. Books read by two students also included an analysis of common vocabulary. Third, a summary of criteria for selection and use of children's literature with ESL adults is included in chapter five, and books used and analyzed in this study are listed in a separate bibliography.

CHAPTER IV

RESULTS

Chapter four presents the results of data analyzed in this study in two divisions: an introduction and analyses of data. The introduction restates the type of data used in this study, placement categories for each subject, and the hypotheses of this study and how each was operationalized. Data analysis division is in two sections: quantitative and qualitative. The quantitative section presents data for hypotheses one to three. The qualitative section presents profiles of groups (i.e., below and above the threshold), individual subjects, and the threshold (hypothesis 4).

INTRODUCTION

Types of Data

There were four types of data analyzed in this study: (1) test score data – pretests and posttests; (2) survey data – initial and final; (3) vocabulary data from the lists of new words per book kept by each student; and (4) book data kept by the researcher.

Placement Categories

There were three categories for subject placement in relation to the hypothesized threshold level of 4, according to the number of test scores above or below the threshold. The placement categories were as follows for the six subjects in this study. (See Table 4.1). Category 1 was defined by three or four test scores above the threshold level 4. Only one subject (#4) pretested in this category with four scores above and none below the threshold (4-0), and was designated advanced. Category 2 was defined by a balance

of two test scores above and two test scores below the threshold level 4. There were two subjects who pretested in this category: #3 (2-2), and #17 (2-2), and were designated intermediate. Category 3 was defined by three or four test scores below the threshold level 4. Three subjects were in this category and were designated beginners: #16 had one test score above the threshold and three scores below (1-3); #14 pretested with all four scores below the threshold (0-4); and #18 also pretested with four scores below the threshold (0-4). (Note that is was purely coincidental that the number of subjects who pretested in each category was the same as the category number. This did not occur on the posttest as seen in Table 4.7).

TABLE 4.1

Placement Categories and Description

In Relation to Threshold at Level 4 (L4)

Category	Number of Test Scores	Description
1	3 or 4 above L4	Advanced
2	2 above and 2 below L4	Intermediate
3	3 or 4 below L4	Beginner

Hypotheses

The vocabulary test score data became the foundation for all hypotheses because the pretests determined the placement of subjects into levels, and the posttests indicated development during the study.

Hypothesis 1: There will be a difference in the nature of vocabulary development of ESL adults below and above a threshold. This threshold level was hypothesized at level 4. The nature of vocabulary was operationalized by analyzing: vocabulary and definitions on subjects' lists of new words, spelling tests from the WRAT-R, and changes and differences between levels. Vocabulary was analyzed for (1) syntactic word class (nouns, verbs, etc.), (2) phonological features of word length (syllables) and pronunciation (amount of, specific initial consonant cluster), and (3) common vocabulary. Semantic and morphemic aspects of vocabulary were analyzed from both vocabulary and definitions. Subjects wrote definitions in three ways: first language (L1), second language (L2), or a combination of L1 and L2. Morphemic aspects included: irregular verb forms, noun forms (plurals), and derivatives. Semantic aspects of vocabulary included synonyms, antonyms, and collocations.

Hypothesis 2: There will be a difference in the book choices of ESL adults below and above the threshold. This hypothesis was operationalized by analyzing the reading choices of the subjects in three ways: (1) reading levels of the books, either as listed on the book or calculated by formulas: either Raygor's (1977) or Fry's (1977), (2) literature genres of the books, and (3) longitudinal changes during the study. The genres of the books were analyzed in two ways: (1) for size and visual (i.e. – picture books vs. young adult); and (2) for content (i.e. – biography, historical fiction, fiction, and informational).

Hypothesis 3: There will be a difference in dictionary dependence by ESL adults below and above the threshold. This hypothesis was operationalized by analyzing the total amount of vocabulary and amount of first and second language definitions per levels.

Hypothesis 4: The threshold for reading a second language will be characterized by: (a) a decrease in focus on grammar or syntax; (b) a decrease in dependence on the dictionary; and (c) a change in book choices and interest in reading. Becuase this hypothesis is qualitative, it incorporates data results from the other hypotheses.

DATA ANALYSIS

This section is divided into two parts: quantitative and qualitative data results. The quantitative division begins with introductory data that are foundational to the remaining data: (1) selected data from the initial surveys, and (2) test score data. Then the quantitative division presents results through hypotheses 1-3. The qualitative data division includes profiles for individual subjects, vocabulary levels, and data related to hypothesis 4, the threshold level.

TABLE 4.2

Subject Data

Subject Code #	Pseudonyms	Age	First Language	Prior English
14	Sarah	40	Portuguese	0
16	Joan	35	Chinese	1 year
18	Katie	39	Chinese	2 years college
3	Rosa	28	Chinese	Middle School
17	Margaret	28	Chinese	4 years college
4	Judy	29	Thai	10 years

QUANTITATIVE DATA

Twenty-four volunteers were surveyed initially and the six participants were interviewed for the final surveys. The purpose for the initial survey was for background and selection, and the purpose for the final survey was for subjects' comments on the study and their learning. Initial survey results are found in Table 4.2, aspects relating to both initial and final surveys are in Table 4.3, and selected data from final surveys follows.

Survey Results

Initial Survey Results

Table 4.2 introduces the code numbers assigned to subjects, their chosen pseudonyms, ages, first languages, and prior background in English. First, the code numbers reflect the order in which subjects were pretested. In other words, subject #4 was pretested fourth, and #16 was pretested sixteenth. The pseudonyms were chosen by the subjects during the study. The code numbers and pseudonyms for beginners were numbers 14, 16, & 18 with pseudonyms of Sarah, Joan, and Katie respectively. Code numbers and pseudonyms for subjects at or above the threshold were numbers 3, 17, and 4 with pseudonyms of Rosa, Margaret and Judy respectively.

Second, the ages and amounts of English and education varied. The age of the subjects ranged from 28 years old to 40. Subjects above the threshold were younger, 28-29, while subjects below the threshold were older, 35-40. The amount of prior L2 education ranged from zero (#14) to ten years (#4). The two beginners (#16 & #18) had one to two years in college, but it was not recent experience. The two subjects above the threshold (#3 & #17) differed in the amounts of L2: Margaret, (#17), had four years in

college; Rosa's (#3) L2 experience was in middle school. The amount of education for subjects is not included in the table, because of the similarity of backgrounds in that, with the exception of #3, all had university degrees, and two were professionals. Sarah (#14) was an elementary teacher, and Joan, (#16), had a medical degree. The point for this study is that all subjects had varying amounts of L2, but similar levels of education.

There were similarities and differences in the subjects' native languages. Above the threshold, #17 and #3 spoke Chinese, and #4 spoke Thai. Below the threshold, #16 and #18 spoke Chinese, and #14 spoke Portuguese. In other words, there were four subjects who spoke Chinese, and two who spoke different native languages.

Results Related to Both Surveys

Table 4.3 shows results of subjects' self-ratings of L2 reading ability as either good, average or poor on both the initial and final surveys. The purpose for both ratings was to reflect any changes during the study. Two readers (#14 & #18) below the threshold rated themselves as "poor" L2 readers on the initial survey, but as "good" and "average" L2 readers on the final survey. One reader (#16) rated herself as "average" initially, but indicated that her rate differed for each book on the final survey. Above the threshold, one reader (#3) increased her rating from "poor" on the initial to "average" on the final. Two subjects, (#17 & #4) rated themselves "average" on both, which indicated no change.

TABLE 4.3

Initial and Final Self-Ratings

On L2 Reading Ability

Subjects	Surveys	
Below	Initial	Final
14	poor	good
18	poor	average
16	average	differed by book
Above		
3	poor	average
17	average	average
4	average	average

Final Survey Results

Important aspects of the final surveys are summarized by subjects' responses to their reading and the study. These include comments on using children's literature, aspects of the study, favorite books, influence of the visual, and interest in L2 reading as a result of the study.

First, their responses to using children's literature varied and included four categories: rate, vocabulary, writing and visual. Two beginners (#18 & #16) said that the books increased their reading rate. Five subjects (except for #16) stated that the books had value for vocabulary in different ways. Vocabulary in context was indicated by #14,

and #18 stated that this method for vocabulary development was better than in other classes, #3 mentioned the value of popular vocabulary and the vocabulary lists, #17 only stated vocabulary without elaboration, and #4 indicated that the books increased both her vocabulary and use of the dictionary. The value of the books as a model for writing was mentioned by two subjects, #18 and #3, for ideas by #16, and for accuracy by #4. The value of the books as a visual picture in the mind was stated by #3. Other value of the books included grammar and idioms by #17.

Second, when asked about which aspect of the study was most helpful, students had varied responses. For example, of beginners, #14 listed tutoring as most helpful, #18 stated that she preferred just the reading and that the group was the least helpful, while #16 mentioned only the books. Of subjects above the threshold, #3 stated a specific order of helpfulness: reading the books, writing, and speaking; #17 mentioned vocabulary, TOEFL exercises, and grammar, and #4 just said reading.

Third, responses to favorite books also differed, but can be grouped according to specific values of learning something: story, history and biography. Learning was mentioned in different ways: #14 said that she learned something and gave *Sarah Morton's Day* as an example; #18 indicated that Hillary Clinton's biography was new information in contrast to what she had previously known about Helen Keller; #17 enjoyed *Baseball Saved Us* because she learned about history from it. Specific genres of history and biography were mentioned as favorite types of books by #3, #4, #18 and #14. Only #16 included story in relation to favorite books read. She liked *Riptide* for the story, and *Mieko and the Fifth Treasure* because it was a moving story. Table 4.4 lists favorite books read by each subject.

TABLE 4.4

Favorite Books

Subjects/Levels	Books	Genre
Below		
14	*Sarah Morton's Day*	HF
18	*Hillary Clinton*	Biography
16	*Riptide* and *Mieko & the Fifth Treasure*	F HF
Above		
3	*Sadako & the Thousand Paper Cranes*	HF
17	*Baseball Saved Us*	HF
	The Canada Geese Quilt	F
4	*Helen Keller*	Biography

Note: Categories are: HF – historical fiction; F – Fiction.

Fourth, responses to visual aspects (i.e., picture books) included the following comments. Enjoyment was indicated by #14, #16 and #3; attractiveness by #4; and beauty by #3. Aspects of context were mentioned in different ways: for context by #14; for understanding the text by #3, #17, and #4; for understanding the times by #3 (gave the example of *In Coal Country);* and for clarity on content by #4. Only one subject, #18, indicated that the visual was a distraction and slowed her down.

Finally, subjects were asked to rate their interest in reading English as a result of this study, and were given choice of responses on an ordinal scale of "increase", "same", or "decrease". All subjects indicated "increase". This result was reflected in observations made by the researcher during the study.

Test Score Data

Test scores were foundational to this study for placement level and data analysis. The vocabulary tests were coded for purposes of presenting the data and are described in Table 4.5. The scores on pretests and posttests are found in Table 4.6, and changes in category between pretest and posttest are listed in Table 4.7.

Test Codes

Test codes are listed in Table 4.5 and described as follows. Test 1 was SIRI (1991) oral pronunciation of vocabulary in context: Form A was used on the pretest and Form B on the posttest. Test 2 was the synonyms and antonyms subtest of the WLPB-R (1991). Test 3 was the silent reading vocabulary subtest on the Gates-MacGinitie (1989) test and was used for different levels indicated in parentheses on Table 4.6. Test 4 was the spelling subtest from the Wide Range Achievement Test (WRAT-R, 1984), and was used at Level I on the pretest and Level II on the posttest.

Test Scores

Results of the test scores and threshold categories for all subjects are shown in Table 4.6. The descriptions of individual results are organized according to level, with subjects below the threshold first, followed by those above the threshold. Changes in threshold category level from pretest to posttest for all subjects are found in Table 4.7.

TABLE 4.5

Test Codes, Names, and Descriptions

Test

Code	Name	Description
1	Steiglitz Informal Reading Inventory	oral pronunciation
2	Woodcock Language Proficiency Battery-Revised	synonym-antonym
3	Gates-MacGinitie Reading Test	silent reading
4	Wide Range Achievement Test	spelling

Beginners

Katie's (#18) pretest scores ranged from 1.7 to 3.5 with her lowest score on silent reading at 1.7 to highest on spelling at 3.5. Her vocabulary level for pronunciation and on synonyms and antonyms was level 2 and 2.4 respectively. Her placement category was 3 with four test scores below the threshold and none above (0-4). Her posttests showed changes in silent reading, and in synonyms and antonyms, but no change in category. In silent reading she increased from 1.7 (L4: level four test) to 2.6 (L3: because she had difficulty with five) for a gain of +0.9. Her posttest category remained at 3 with 4 tests below and none above (0-4). She was the only beginner with no change in her category.

Sarah's (#14) pretests range in the vocabulary level of 1-2 with three test scores within level 1: pronunciation was 1.0, synonyms and antonyms at 1.5, and silent reading at 1.6 (L1). Her highest score was on spelling at 2.8. Her pretest placement category was 3 with four tests below and none above (0-4). Sarah's posttests ranged from primer (P) on pronunciation as her lowest score to her highest at 6.2 in spelling. She decreased one level in pronunciation, but increased on synonyms-antonyms, silent reading and spelling. On the synonyms-antonyms, she gained +1.4 from 1.5 to 2.9; on silent reading she gained +.7 from 1.6 to 2.3; and she had her greatest increase in spelling of +2.5 from 2.8 to 6.2. Although her posttest category was still a beginner at 3, she showed change from her pretest category of 3 with four test scores below and none above, to her posttest category of three tests below and one above. (1-3).

Joan's (16) pretest scores ranged from 2.7 to 4.8 with her lowest score of 2.7 on synonyms-antonyms, and her highest on spelling at 4.8. Pronunciation and silent reading were 3 and 3.6 respectively. Her placement category on the pretests was beginner with three tests below the threshold and one above (1-3). Her posttests ranged from 3.3 to 6, with her lowest score on silent reading at 3.3 to her highest in pronunciation at 6. She increased in two tests, but also decreased in two. She gained +3 levels in pronunciation from 3 to 6, and gained +2.1 levels in synonyms-antonyms from 2.7 to 5.1. She decreased -0.3 in silent reading from 3.6 to 3.3, and -0.9 in spelling from 4.8 to 3.9. Her posttest category showed increase from her pretests with three tests below and one above (1-3) to category 2 with two above and two below the threshold (2-2).

Test Results – above the threshold

Rosa's (#3) pretest scores ranged from her lowest at 3 on both pronunciation and silent reading to her highest score of 5.7 on synonyms-antonyms, and 5.0 on spelling. Her posttest category was at or above level 2 with two tests above and two below the threshold (2-2). On her posttests Rosa showed increases in all tests, range and category. Her range was from 4 to 7.7 with her lowest score of 4 on pronunciation, and her highest on synonyms-antonyms at 7.7. Her increases were +1.0 in pronunciation from level 3 to 4; +1.2 in silent reading from 3.0 to 4.2; +0.4 in spelling from 5.0 to 5.4; and +2.0 in synonyms-antonyms from 5.7 to 7.7 Her posttest category also changed from category 2 with two tests below and two above the threshold (2-2) to category 1 with all four tests above the threshold (4-0).

Margaret's (#17) pretests ranged from 2.7 to 6.4 with her lowest score of 2.7 on the synonyms-antonyms to her highest on spelling at 6.4. Her silent reading was 3.5 and her pronunciation was 4.0. Her pretest placement category was 2 with two tests below and two above (2-2), and was considered above the threshold. Her posttests showed increases in all tests and category. She ranged from her lowest score of 4.5 on silent reading to her highest score on spelling at 6.7. Her gains were +2.4 on synonyms-antonyms from 2.7 to 5.1, and +1 on both silent reading and pronunciation, from 3.5 to 4.5, and 4 to 5 respectively. Her posttest category changed from category 2 with two tests below and two above the threshold, to category 1 with all tests above (4-0), the advanced level.

Judy's (#4) pretests ranged from 5.3 to 8 with her lowest score in silent reading at 5.3 to her highest at 8.0 in pronunciation. Her scores on synonyms-antonyms and spelling were 7.0 and 7.3 respectively. Her pretest placement category was 1 with all tests above the threshold (4-0). She was considered advanced. Her posttests showed increases in three tests and a decrease in one. She ranged from her lowest score in pronunciation at 5 to her highest test in synonyms-antonyms at 11.3. Her silent reading and spelling were 8.3 and 8.9 respectively. Her increases were greatest in the synonyms-antonyms from 7.0 to 11.3, a gain of +4.3 levels. Her gains in silent reading were +3.0 levels from 5.3 to 8.3, and in spelling +1.6 from 7.3 to 8.9. However, she showed a decrease in 3.0 levels on pronunciation from 8 to 5. Her posttest category remained constant at 1 with all tests above the threshold (4-0). She was the only subject above the threshold who remained in the same category for both pretests and posttests.

Foundational Results

Because the data analysis was based on the number of books read and the subjects' vocabulary lists with definitions, these data are foundational and are listed first in Tables 4.8 to 4.11. Aspects of these results are described in each hypothesis. The data have been collapsed by levels in Table 4.8 to show the total number of books read with number of lists in parentheses, and vocabulary and definition totals for each level. Table 4.9 expands the vocabulary and definition totals to show the individual frequencies for each subject and is grouped by levels. Tables 4.10 and 4.11 expand the book and vocabulary results to present the total vocabulary per book read by each subject. These two tables are divided into levels: Table 4.10 shows the results for subjects below the

threshold, and Table 4.11 shows the books and vocabulary for subjects above the threshold.

TABLE 4.6

Subjects' Codes, Scores, and Placement Categories

On Pretests and Posttests

Subject Code	Pretest/ Posttest	1	2	3	4	Category
18	Pretest	2 (A)	2.4	1.7 (L4)	3.5 (I)	3 (0-4)
	Posttest	2 (B)	3.6	2.6 (L3)	3.3 (II)	3 (0-4)
14	Pretest	1 (A)	1.5	1.6 (L1)	2.8 (I)	3 (0-4)
	Posttest	P(B)	2.9	2.3 (L3)	6.2 (II)	3 (1-3)
16	Pretest	3 (A)	2.7	3.6 (L4)	4.8 (I)	3 (1-3)
	Posttest	6 (B)	5.1	3.3 (L5)	3.9 (II)	2 (2-2)
3	Pretest	3 (A)	5.7	3.0 (L4)	5.0 (I)	2 (2-2)
	Posttest	4 (B)	7.7	4.2 (L5)	5.4 (II)	1 (4-0)
17	Pretest	4 (A)	2.7	3.5 (L4)	6.4 (I)	2 (2-2)
	Posttest	5 (B)	5.1	4.5 (L5)	6.7 (II)	1 (4-0)
4	Pretest	8 (A)	7.0	5.3 (L4)	7.3 (I)	1 (4-0)
	Posttest	5 (B)	11.3	8.3 (L5)	8.9 (II)	1 (4-0)

Note: parentheses following test scores of tests 3 and 4 indicate levels of test administered. For example, subject 14 was pretested at level 1 (L1) and posttested at level 3(L3). Test 4: pretests were level I, posttests were level II.

TABLE 4.7

Subjects' Changes in Category

Pretest to Posttest

Subject	Pretest	Posttest
4	1 (4-0)	1 (4-0)
17	2 (2-2)	1 (4-0)
3	2 (2-2)	1 (4-0)
16	3 (1-2)	2 (2-2)
14	3 (0-4)	3 (1-3)
18	3 (0-4)	3 (0-4)

Note: Two subjects exhibited no change: one beginner (#18) and one advanced (#4).

TABLE 4.8

Books, Vocabulary, and Definitions

In Relation to Threshold

Levels	Books/Lists	New Words	Definitions
Below	28 (27)	1650	1544
Above	38 (26)	510	611

Note: the numbers within parentheses refer to the number of vocabulary lists turned in per book read. In other words, subjects above the threshold read 38 books, but turned in only 26 vocabulary lists, indicating that twelve books did not have vocabulary lists.

TABLE 4.9

Vocabulary and Definitions

For Subjects and Levels

Subjects	Vocabulary	Definitions
Below		
16	607	559
18	227	223.
14	816	762
Totals	1650	1544
Above		
3	200	200
17	158	158
4	152	253
Totals	510	611

TABLE 4.10

Books and Vocabulary for Subjects

Below the Threshold in Order Read

Subject Code		
16	18	14
The Little House (P) RL: 4.0 Voc: 30	*Hide and Seek* (P) RL: 6.0 Voc: 48	*Year at Maple Hill Farm* (P) RL: 2.5 Voc: 46
Riptide (P) RL: 4.1 Voc: 102	*Louis Braille* (Y) RL: 3.0 Voc: 82	*White Snow, Bright Snow* (P) RL: 6.0 Voc: 47
I Hate English (P) RL: 2.0 Voc: 14	*The Little House* (P) RL: 4.0 Voc: 16	*Otters Under Water* (P) RL: 4.0 Voc: 26
Lily and Miss Liberty (Y) RL: 2.0 Voc: 94	*Hellen Keller* (Y) RL: 4.8 Voc: 21	*When I am Old With You* (P) RL: 4.5 Voc: 24
Mieko and the Fifth Treasure (Y) RL: 2.8 Voc: 121	*Hillary Clinton* (Y) RL: 4.2 Voc: 24	*Count Your Way Through China* (P) RL: 7.5 Voc: 30
Bill Clinton (P) *(by Greene)* RL: 4.9 Voc: 21	*Barbara Bush* (Y) RL: 7.0 Voc: 14	*Count Your Way Through Canada* (P) RL: 10.5 Voc: 39
Bill Clinton (P) *(by Landau)* RL: 10.5 Voc: 170	*Mr. President* (Y) RL: 5.2 Voc: no list	*Sarah Morton's Day* (P) RL: 4.0 Voc: 50

TABLE 4.10

Books and Vocabulary for Subjects

Below the Threshold in Order Read

Subject Code		
16	18	14
Janet Reno (P) RL: 8.8 Voc: 55	*Grandma Moses* (Y) RL: 5.5 Voc: 22	*My Little Island* (P) RL: 4.0 Voc: 19
		Picture Book of Frederick Douglass (P) RL: 6.9 Voc: 31
		The Wall (P) RL: 2.5 Voc: 21
		The Upstairs Room (Y) RL: 2.5 Voc: 398
		The Day it Rained Forever (Y) RL: 4.0 Voc: 85
TOTALS:		
Books: 8 Lists: 8 Voc: 607 Genre: P = 6 Y = 2	8 7 227 P = 3 Y = 5	12 12 816 P = 10 Y = 2

Note: P = Picture book; Y = Young adult genres.

TABLE 4.11

Books and Vocabulary for Subjects

Above the Threshold in Order Read

Subject Code		
3	17	4
Exploration in China (P) RL: 10.5 Voc: 49	*Grandma Moses* (Y) RL: 5.5 Voc: 20	*Helen Keller* (Y) RL: 4.8 Voc: 13
El Chino (P) RL: 5.0 Voc: 11	*Barbara Bush* (P) RL: 7.0 Voc: 19	*George Washington* (P) RL: 8.0 Voc: 12
Prince William (P) RL: 4.3 Voc: 16	*Count Your Way Through China* (P) RL: 7.5 Voc: 17	*The Pioneers* (P) RL: 7.0 Voc: 7/1
Old Cat (P) RL: 8.3 Voc: 10	*The Little Island* (P) RL: 7.2 Voc: 22	*The American Revolution* (Y) RL: 12.8 Voc: 45/50
Mieko and the Fifth Treasure (Y) RL: 2.8 Voc: 21	*The Canada Geese Quilt* (Y) RL: 3.8 Voc: 21	*Mother Teresa* (Y) RL: 6.5 Voc: 26/17
Walt Disney (Y) RL: 3.4 Voc: 24	*Baseball Saved Us* (P) RL: 4. Voc: 10	*Bill Clinton* (P) RL: 10.5 Voc: 13/10
Ben Franklin (P) RL: 3.5 Voc: 7	*The Year of the Panda* (Y) RL: 2.8 Voc: 18	*The Day it Rained Forever* (Y) RL: 4.0 Voc: 22/11

TABLE 4.11

Books and Vocabulary for Subjects

Above the Threshold in Order Read

Subject Code		
3	17	4
Sadako & the Thousand Paper Cranes (Y) RL: 7.5 Voc: 30	*Dear Dr. Bell* (Y) RL: 7.5 Voc: 31	*The Night Crossing* (Y) RL: 5.0 Voc: 14/5
In Coal Country (P) RL: 4.5 Voc: 13		*Laura Ingalls Wilder* (Y) RL: 3.5 Voc: no list
Flight (P) RL: 4.0 Voc: no list		*The First Four Years* (Y) RL: 8.5 Voc: no list
Hillary Rodham Clinton (Y) RL: 4.2 Voc: 19		*Anne Frank: Life in Hiding* (Y) RL: 7.5 Voc: no list
Riches (Y) RL: 5.5 Voc: no list		*Echos of the White Giraffe* (Y) RL: 6.0 Voc: no list
The Big Wave (Y) RL: 4.9 Voc: no list		*Beautiful Land* (Y) RL: 3.5 Voc: no list
Colin Powell (Y) RL: 5.0 Voc: no list		
Janet Reno (P) RL: 8.8 Voc: no list		

TABLE 4.11

Books and Vocabulary for Subjects

Above the Threshold in Order Read

	Subject Code		
	3	17	4
Paul Revere's Ride (P) RL: 2+ Voc: no list			
Anne Morrow Lindbergh (P) RL: 9.1 Voc: no list			
TOTALS:			
Books:	17	8	13
Lists:	10	8	8
Voc:	200	158	152/94
Genre:	P = 10 Y = 7	P = 4 Y = 4	P = 3 Y = 10

Hypotheses Results

Hypothesis One

The focus of this hypothesis was on differences in vocabulary in relation to the threshold, hypothesized at level four. This hypothesis was operationalized by analyzing subjects' vocabulary lists of new words and definitions from each book read during the study. Vocabulary results related to this hypothesis included aspects of vocabulary, definitions, and reading choices.

Vocabulary Results

The following dimensions of vocabulary were analyzed from the vocabulary lists for frequency: quantity of both vocabulary and definitions, syntactic class (nouns, verbs, etc.), phonological features of pronunciation and length, common vocabulary, and the semantic and morphemic aspects related to both vocabulary and defintions.

Quantity of Vocabulary

Frequency analysis of the data is found in Tables 4.8 to 4.11. Table 4.8 indicates that subjects below the threshold listed 1650 new words from 28 books with 27 vocabulary lists. Subjects above the threshold listed 510 new words from 38 books and 26 vocabulary lists. These results show that the number of vocabulary lists were similar for subjects above and below the threshold, but that subjects below the threshold had three times (3.235) more vocabulary than those above. In terms of average, subjects below averaged 61.11 new words per book, while those above had 19.61 words per book.

Table 4.9 shows the amount of vocabulary for subjects by levels. Subjects below the threshold varied in the amount of words and vocabulary lists. Joan (#16) read 8 books with 8 lists and had 607 new words. Katie (#18) read 8 books with 7 lists and had 227 new words. Sarah (#14) read 12 books with 12 lists for a total of 816 new words. However, each beginner had some books which generated more words than others. Table 4.10 shows the vocabulary totals for each book read by beginners. For example, #16 had the most vocabulary from *Bill Clinton* with 170 new words, and the least from *I Hate English* with 14 words. Katie's (#18) largest amount of vocabulary was *Louis Braille* with 82 words, and her least was from *Barbara Bush, First Lady of Literacy* with 14 new

words. Sarah's (#14) largest vocabulary list was from *The Upstairs Room* with 398 new words, and her least was from *My Little Island* with 19 words.

Subjects above the threshold did not have as much variation in their vocabulary totals. Rosa (#3) read 17 books with 10 vocabulary lists for a total of 200 new words. Her largest list was from *Exploration in China* with 49 new words, and her smallest list was from *Ben Franklin* with only 7 , and seven books had no vocabulary lists. Margaret (#17) read 8 books with 8 vocabulary lists for a total vocabulary of 158. Her largest vocabulary list was 31 on *"Dear Dr. Bell...Your Friend, Helen Keller"*, and her smallest was 10 words on *Baseball Saved Us*. Judy (#4) read 13 books with 8 lists for a total of 152 words. Her largest list was from *The American Revolution* with 45, and her smallest was 7 from *The Pioneers,* and there were no lists for 5 books.

Consequently, subjects below the threshold showed a greater range of new words from 227 to 816, in contrast to subjects above with a range of 152 to 200 new words. The levels also differed in the average amount per subject. Beginners averaged 75.87 for Joan, 32.42 for Katie, and 68 for Sarah, in contrast to those above with average of 20.0 for Rosa, 19.75 for Margaret, and 19.0 for Judy.

Syntactic Analysis

The second type of vocabulary analysis was for syntactic or linguistic word classes in the frequency and percentage for each type between levels and subjects. Table 4.12 indicates the quantitative differences with percentages in parentheses. Table 4.13 expands the results for individual subjects.

TABLE 4.12

Linguistic Class Totals

	Total	Linguistic Class and Percentage				
Level	Voc.	Nouns	Verbs	Adjectives	Adverbs	Other
Below	1650	684 (41.45)	596 (36.12)	219 (13.27)	95 (5.75)	56 (3.393)
Above	510	252 (49.14)	176 (34.50)	78 (15.29)	0	4 (0.784)

The results of this analysis indicated three differences between levels. First, Table 4.12 showed (a) the difference in the amounts for each class and level. For example, subjects below the threshold had greater frequencies of nouns, verbs, and adjectives with totals of 684, 596, and 219 respectively, while subjects above the threshold had three times less in these classes with 252 nouns, 176 verbs, and 78 adjectives. However, when the data was analyzed by percentage in relation to total vocabulary per level, the results were similar for both levels. In other words, nouns accounted for 41.45% of vocabulary below the threshold, and 49.14% for those above the threshold. Verbs were 36.12% for beginners, and 34.50% for those above. Adjectives were 13.27% below, and 15.29% above.

The second result from the syntactic analysis was the presence of certain classes: 95 adverbs and 56 "others" (prepositions, conjunctions and pronouns) which were mostly absent on lists of those above, with the exception of four phrases on the lists for #4.

TABLE 4.13

Individual Vocabulary by Word Classes

in Relation to the Threshold

Total		Class				
Level	Voc.	Nouns	Verbs	Adjectives	Adverbs	Other
Below						
16	607	298	192	64	27	26
18	227	135	56	34	1	1
14	816	251	348	121	67	29
Total:	1650	684	596	219	95	56
Above						
3	200	97	70	33		
17	158	89	56	13		
4	152	66	50	32		4
Total:	510	252	176	78		4

Table 4.13 expands the data to show results for each subject in relation to the threshold, and indicates another difference between levels in terms of range. Below the threshold, #16's largest class was nouns with 298, her smallest classes were adverbs with 27 and others with 26. Katie's (#18) largest class was nouns with 135 and smallest were adverbs and other, with one each. Sarah's (#14) range showed difference in that her largest class was verbs with 348 and her smallest class was other with 29. Above the

threshold, nouns were the largest class for all subjects with 97, 89, and 66, and their smallest classes were adjectives with 33, 13, and 32. However, the ranges were similar and differed less for subjects above the threshold than those below.

Consequently, the three most important results from the syntactic analysis between levels were as follows. The first difference was the presence of all types of word classes on lists of beginners, but only nouns, verbs, adjectives, and 4 phrases on lists of those above. The second difference was in the distinction between the amounts and percentages of classes, in that the quantities of specific classes differed between levels, but their percentages of total vocabulary were similar. The third difference was in the individual variation in range of subjects below the threshold, but a similarity in range for subjects above.

Phonological Features Analysis

The third aspect of vocabulary analyzed from the lists was phonological. Word length and pronunciation were two features considered in this analysis based on Laufer's (1990b) identification of these as difficulty factors in learning vocabulary. Word length was also considered in readability formulas by number of syllables (Fry, 1977) or words with more than six letters (Raygor, 1977). This present study analyzed the vocabulary on the lists according to the number of syllables (from words with one syllable to words with four or more). The results of this analysis are found in Table 4.14. Pronunciation was analyzed by the amount of L2 pronunciation as indicated by phonetic transcriptions on three subjects' vocabulary lists. Pronounceability was analyzed according to the number of words with initial consonant clusters beginning with /s/. The results of these analyses are in Tables 4.15 and 4.16.

Word Length was the first phonological feature analyzed from subjects' vocabulary according to the number of syllables. Table 4.14 shows the results for words from one to four or more syllables for subjects and levels. There were some quantitative differences between levels. Subjects below the threshold had 4.67 times more one-syllable words than those above with 752 and 163 respectively. There were 624 two-syllable words for beginners and 206 for subjects above the threshold, indicating that beginners had 3.01 times more than those above. Three-syllable words accounted for 157 for beginners and 101 for those above, with only a 1.55 difference. Four-syllable words for both levels differed slightly with 48 for subjects below and 36 for those above. In addition, there were four phrases not counted as syllables for #4. In other words, the difference between levels decreased from the greatest difference found in one-syllable words, to a small difference for words of four or more syllables. However, while subjects below the threshold had the greatest amount of one-syllable words, subjects above had a larger amount of two-syllable words.

The individual patterns of word length showed that subjects below the threshold varied in range, while those above were similar. For example, Joan's (#16) range was 215 for one-syllable words and 37 for four-syllables, and 59 other, not counted in syllables. Joan also had the greatest amount of words with four-or-more syllables for all subjects. Katie's (#18) range was 103 one-syllable words to only 7 words with four or more syllables plus 6 others. Sarah's (#14) range had the greatest amount of one-syllable words of all subjects with 434, and her least in four or more syllables with 4, plus 4 phrases not counted as syllables.

TABLE 4.14

Vocabulary by Syllables

In Relation to Threshold

Subject/ Level	Number of Syllables					Vocabulary Total
Below:	1	2	3	4+	Other	
16	215	207	89	37	40/19	607
18	103	90	21	7	6	227
14	434	327	47	4	4	816
Totals:	752	624	157	48	50/19	1650
Above:						
3	65	74	45	16		200
17	65	55	26	12		158
4	33	77	30	8	4	152
Totals:	163	206	101	36	4	510

Note: First number under other refers to two-word entries; second number after slash refers to phrases.

Subjects above the threshold showed some similarity but also indicated some difference within the level for subjects above. For example, both Rosa (#3) and Margaret (#17) had similar ranges from 65 one-syllable words each to 16 and 12 words with four or more syllables respectively. Judy (#4) in contrast had half the number of one-syllable

words with 33, but had 8 words with four or more syllables, and 4 phrases, not counted as syllables.

Pronunciation was the second phonological feature analyzed from subjects' vocabulary on their lists. This was analyzed first by the amount of L2 pronunciation of vocabulary indicated on the lists, and second by a pronounceability factor of a specific initial consonant cluster /s/ plus consonant "C" indicated as "sC", or "sCC".

The first aspect of pronunciation analyzed was its frequency found on vocabulary lists. Table 4.15 shows the results of this analysis. Only three subjects included pronunciation as part of their learning strategies: Katie (#18), Joan (#16) and Rosa (#3), all were Chinese speakers. Rosa was the only subject above the threshold with the lowest amount of pronunciation for 64 words which was 32.0% of her total vocabulary. Katie had pronunciation for 114 words which accounted for 50.22% of her vocabulary. Joan had the most pronunciation with 424 words for 69.85% of her vocabulary. The difference between levels was in the smaller amount for the one subject above the threshold and the greater amount for the two below the threshold. There was also a difference in that three subjects did not use pronunciation as a strategy.

The second aspect of pronunciation analyzed from the lists was pronounceability by analyzing the frequency of a specific initial consonant cluster or blend beginning with /s/. Initial consonant clusters were chosen for analysis for three reasons: (1) Treiman (1992) indicated that this construction was difficult for L1 children to prounounce; (2) Laufer (1990b) included this construct as difficult for ESL learners; and (3) the L2 literature indicated that this construct was difficult for the three native languages represented in this study. Chinese lacks initial consonant clusters (Chang, 1987).

Thai lacks 6 consonant clusters beginning with /s/ (Smyth, 1987), and Portuguese lacks 4 initial s-consonant clusters (Shepherd, 1987). Therefore, due to the reported difficulty with this construct for Thai, Portuguese and Chinese ESL learners, initial consonant clusters beginning with /s/ were selected for analysis on the subjects' vocabulary lists. The results of this analysis are reported in Tables 4.16 to 4.18.

TABLE 4.15

Vocabulary Analysis by Pronunciation

Level/ Subject	Amount of Pronunciation	Percent of Total
Below		
14	0	0.0%
18	114	50.22%
16	424	69.85%
Above		
3	64	32.00%
17	0	0.0%
4	0	0.0%

Table 4.16 reports the frequency of ten consonant clusters with /s/ for subjects in relation to the threshold. Note that clusters with three consonants beginning with /s/ are listed as the second number in the columns for four clusters, but are counted in the total. The major difference between levels was in the quantity of 183 for subjects below, and

70 for those above the threshold. However, there were also differences between the individual clusters. These patterns are reported according to pairs of clusters.

The largest group of clusters was the /st/&/str/ and /sh/&/shr/ with totals of 45 and 41 clusters for beginners, and 20 and 10 clusters respectively for those above. These accounted for the greatest difference between levels in that beginners had 31 more /sh/ and /shr/, and 25 more /st/&/str/ clusters than those above the threshold.

The clusters /sc/&/scr/ and /sp/&/spl-spr/ were the next largest group with 23 and 21 for beginners, and 7 and 8 for those above. There were differences between levels in that beginners listed 16 more /sc/ and /scr/, and 13 more /sp/ and /spl-spr/ than those above the threshold. However, there were similarities within levels between the two sets of clusters, in that their frequencies were similar. Subjects below listed 23 and 21 each for these clusters, and subjects above listed 7 and 8.

The third pair of clusters was /sw/ and /sl/ with 20 and 14 clusters each for beginners, and 3 and 5 respectively for subjects above the threshold. The differences between levels were 17 more /sw/ clusters and 9 more /sl/ for those below than those above the threshold.

The fourth pair of clusters was /sn/ and /sm/ with 5 and 6 on the beginners' lists, and 2 and 4 on those above. The difference for these clusters between levels was the least with only 3 more /sn/ and 2 more /sm/ for beginners.

Subjects below and above the threshold showed only slight differences in the frequencies of /sq/ and /sk/ clusters, the last pair of clusters. Beginners had frequencies of 5 /sq/ and 3 /sk/ clusters, and subjects above the threshold had frequencies of 6 and 5 respectively for these clusters.

TABLE 4.16

Initial s-Consonant Clusters

Consonants	Below	Above
st	45/19	20/7
sh	41/2	10/2
sc	23/6	7/3
sp	21/7	8/1
sw	20	3
sl	14	5
sm	6	4
sq	5	6
sn	5	2
sk	3	5
Totals:	183/34	70/13

Note. First number in column is the total, the second number indicates vocabulary with three initial consonants, i. e., "strained".

Table 4.17 reports the analysis of consonant clusters with /s/ for the individual subjects and levels. Beginners differed in the number of clusters in decreasing frequencies, in contrast to subjects above whose frequency totals were similar. In Table 4.17, the frequency results of Table 4.16 were expanded to show patterns of initial consonant clusters with /s/ for individual subjects and levels. There were three patterns

which emerged from this analysis: differences in total frequencies between levels, and differences in both the most and least cluster frequencies.

The first pattern was evident in the total frequencies for individual subjects and levels. Individual beginners had decreasing total frequencies of these clusters, in contrast to those above whose frequency totals were similar. Beginners' frequencies were 99, 49 and 35 for subjects #14, #16 and #18, repectively, while those above had frequencies of 26, 20 and 24 clusters for subjects #3, #17, and #4, respectively.

The second pattern was similar to the first in that the most frequent clusters showed variation for beginners with decreasing frequencies, but showed similarity for subjects above. For beginners, Sarah's most frequent clusters were 25 /sh/ and 23 /st/. Joan's most frequent were the same clusters but in reverse order with 15 /st/ and 10 /sh/. Katie's pattern differed from the other two beginners in that her most frequent clusters were divided among four clusters with 7 /st/, 6 /sh/ and 5 each in /sc/ and /sp/.

The third pattern evident in this analysis was in cluster gaps. While the table shows cluster gaps (indicated by 0) for all subjects, the results also indicate individual variation between subjects in which clusters were absent. The levels were similar in the amount of gaps. Beginners had six gaps and subjects above had seven gaps. Of the beginners, #16 had the most with three gaps, in /sm/, /sn/ and /sq/; #18 had two, in /shr/ and /sn/; and #14 had one in /sk/. Subjects above the threshold had seven cluster gaps: #4 had three in /spr/, /sl/, and /sn/; #3 and #17 both had gaps in /spr/; #3 also had gaps in /sh/ & /shr/; while #17 had gaps in /sw/ and /sm/ .

Patterns of cluster gaps also differed between levels. Three cluster gaps appeared in both levels: /sn/, /sm/ and /sh/ & /shr/. Joan and Katie both had cluster gaps in /sn/, #4

lacked the same cluster above. The gaps in /sm/ were #16 below and #17 above the threshold. The /shr/ cluster was missing in #18 below and #3 above. Two cluster gaps appeared only below the threshold: /sq/ and /sk/ on #16 and #14 respectively. Three cluster gaps occurred only above the threshold: /spr/, /sw/, and /sl/. The cluster was absent in /spr/ for two subjects above the threshold, #3 and #4.

The results of this analysis on initial consonant clusters beginning with /s/ suggests two conclusions. First, this construction did not appear to be related to first languages, but may be more related to L2 ability in relation to the threshold. For example, subjects below the threshold had more vocabulary (i.e., 1650), while subjects above had less (i.e., 510). Consequently, there would be more of this construction found on the lists of subjects below the threshold. Second, because each of the native languages in this study were considered to have some difficulty with this construction, the results of this analysis could suggest that the initial consonant cluster beginning with /s/ did not appear to be an important factor of difficulty for L2 reading. Consequently, the difficulty with this construction may be more related to speaking vocabulary rather than for reading vocabulary.

TABLE 4.17

Initial Consonant Clusters with /s/

In Relation to Threshold

Consonant Cluster	Below			Above		
	14	16	18	3	17	4
sh	25/1	10/1	6/0	0	5/1	5/1
st	23/9	15/7	7/3	8/2	5/3	7/2
sc	12/3	6/1	5/2	1/1	2/1	4/1
sp	10/2	6/3	5/2	4/0	2/1	2/0
sw	10	7	3	2	0	1
sl	7	4	3	3	2	0
sm	4	0	2	2	0	2
sq	3	0	2	2	2	2
sn	5	0	0	1	1	0
sk	0	1	2	3	1	1
Total:	99/15	49/12	35/7	26/3	20/6	24/4

Note: First number in columns is the total, second is the amount of words with three initial consonants.

TABLE 4.18

Initial Consonant Clusters with /sCC/

In Relation to Threshold

Cluster	Below			Above		
	14	16	18	3	17	4
str	straight strained stream strength stringy stroke struggle straightened stretched	straighten streak streamer stride stroke stroll stretch	straight stranger stray	strap strengthen	strait strive stroke	stray stringy
scr	scrap scratches scribbled	scrapbag	scrap scream	scrap	scrap	schooner
spC	splashing spread	splash sprawl sprinkler	sprang spread		sprinkle	
shr	shrieked	shrimp			shrug	shrug

Common Vocabulary

Tables 4.18 and 4.19 report different vocabulary analyses. The focus on 4.18 was vocabulary with three initial consonant clusters beginning with /s/, which were not necessarily from the same context. The focus of Table 4.19 was on common vocabulary from the same context or book. These tables are presented here to illustrate contrasting contexts and relationship to Table 4.19.

There were several patterns found in these analyses: vocabulary common to both levels, vocabulary common between Tables 4.18 and 4.19, and vocabulary listed in different forms.

First, vocabulary common to both levels included string, stringy, scrap, stroke, sprinkle, and strength. STRAY and STRINGY were both listed by one subject below and one above the threshold, #18 and #4, and #14 and #4 respectively. "Stringy" was the only word from the same context and was the only word common to Table 4.19 Four words appeared in different forms across levels. SCRAP was listed in the same form by two subjects below the threshold (#14 and #18) and two above (#3 and #17), but was also listed as a compound, SCRAPBAG by #16. STROKE was listed by two subjects below (#16 and #14) and one subject above (#17). The root form was on Joan's list and the plural form was on Sarah's (#14) list. SPRINKLE was listed in root form by one subject above the threshold (#17), and in noun form, SPRINKLER, by a subject below (#16). STRENGTH appeared in root form on Sarah's'(#14) list, and as a present participle, STRENGTHEN, on Rosa's (# 3) list.

Second, common vocabulary within levels included four words which were common only to beginners, and one word was common only to those above the threshold. SPREAD was the only word which was listed in the same form by #14 and #18. STRAIGHT appeared in several forms. Sarah (#14) listed both the root and past participle form STRAIGHTENED. In addition, one subject above the threshold listed a homonym STRAIT, which differed in form and meaning. STRETCH was listed in root form by #16, and past tense form by #14. SPLASH was in the root form on Joan's (#16) list and as the present participle, SPLASHING, on Sarah's list. There was only one word

common to two subjects (#17 and #4) above the threshold, SHRUG, and it was listed in the same form.

Third, common vocabulary between Tables 4.18 and 4.19 included only one word, STRINGY, with an initial cluster of three consonants beginning with /s/. This word was read in the same context by two subjects, #14 and #4. There were six other common words with initial consonant clusters beginning with /s/, and five non s-cluster vocabulary (i.e., FROST), only on Table 4.19. The total common vocabulary for books read by two subjects was 35 words from ten books. Only one book was read by two below the threshold, #16 and #18, the others were read by two subjects from different levels. Three books lacked common vocabulary, and one book lacked a list for #3 above the threshold.

TABLE 4.19

Common Vocabulary on Books

Read by Two Subjects

Book & Reading Level	Vocabulary: Total On list	Vocabulary: Common Words	Subject Code
Day it Rained Forever (RL 4.0)	107 (85/22)	dandy pelt (+ing) muleskinner spittoon spurt stringy range	14 & 4
Helen Keller (RL 4.8)	34 (21/13)	cranky lace ruffle tantrum	18 & 4
Bill Clinton (RL 10.5)	183 (170/13)	civic dampen defer devout incumbent mar	16 & 4
Little House (RL 4.5)	49 (32/17)	brook bud daisy frost ripen robin shutter tenement trolley tar	16 & 18

TABLE 4.19

Common Vocabulary on Books

Read by Two Subjects

Book & Reading Level	Vocabulary: Total on List	Vocabulary: Common Words	Subject Code
Grandma Moses (RL 5.5)	42 (22/20)	sled	18 & 17
Barbara Bush (RL 7)	33 (14/19)	energetic literacy naughty prosper tease	18 & 17
Mieko and the Fifth Treasure (RL 2.8)	139 (121/21)	calligraphy spark	16 & 3
Hillary Clinton (RL 4.2)	43 (24/19)	0	18 & 3
Count Your Way Through China (RL 7.5)	47 (30/17)	0	14 & 17
Janet Reno (RL 8.5)	55 (55/ -)	-	16 & 3

Note: Subject #3 had no list for Janet Reno.

TABLE 4.20

Morphemic and Semantic Analysis

In Relation to Threshold

Level	Morphemes				Semantic	
	Verb Forms		Plurals	Derivatives	Syn-Ant	
Below	Reg.	Irr.				
16	30	10	1	0	20	9
18	0	3	3	0	0	0
14	3	13	0	3	1	1
Total	33	26	4	3	21	10
Above						
3	2	0	0	2	0	0
17	0	0	0	0	1	0
4	3	0	0	78	0	0
Total	5	0	0	80	1	0

Morphemic and Semantic Analysis

The results of morphemic and semantic analyses are reported in Table 4.20. These aspects emerged out of both vocabulary and definitions, were embedded as additional L2 learning strategies, and indicated differences between levels. Morphemic

additional L2 learning strategies, and indicated differences between levels. Morphemic aspects were found as regular and irregular verb forms, plurals, and derivatives. Semantic aspects were listed as synonyms, antonyms, and collocations.

First, VERB FORMS were listed in different ways. Subjects below the threshold listed 59 verb forms, while subjects above listed only five. Subjects below listed irregular verbs in two patterns. Either the past form was listed first followed by the present, or the reversed pattern with the present form first and the past second. Only one subject (#18) used the first pattern (i.e., SWUNG-SWING) and also had the fewest irregular forms of beginners. Joan (#16) and Sarah (#14) used the reverse pattern of listing the present first, then the past form (i.e., BLOW-BLEW-BLOWN). Sarah listed the most irregular forms with 30 and 10 irregular. All subjects below wrote their verb forms as whole words. For example, Joan listed the forms for a regular verb as RIP-RIPPED-RIPPING. Subjects above the threshold differed from those below with fewer forms. Either verb forms were absent from their lists, were listed as morphemes, or as whole words. Judy (#4) listed only 3 forms, Margaret (#17) listed none, and Rosa (#3) listed only two regular forms, which were embedded within her L1 definitions as morphemes /-ed/ and /-ing/ for TURBAN and COMPEL.

PLURAL morphemes only appeared on the lists of two subjects below the threshold, and were absent on the lists of those above. Both #16 and #18 listed the same word from the same text in the same way, from plural to singular: DAISIES-DAISY. Katie's, (#18) other plural forms were listed the same way: OXEN-OX, KNIVES-KNIFE.

DERIVATIVE FORMS on the lists indicated differences in relation to the threshold. Below the threshold only #14 listed three derivative forms as whole words: WOBBLY-WOBBLE, UNHAPPILY-UNHAPPY, and TIGHTLY-TIGHTER. Above the threshold Rosa (#3) embedded two adjective derivatives within her L1 definitions as morphemes, /-ial/ and /-al/ for TERRITORY and SENTIMENT respectively. Judy (#4) listed her derivatives as whole words and separate entries for 152 vocabulary words. Along with her derivatives, she also listed 16 words with the same orthography or spelling, and indicated grammatical function change from the base vocabulary entry. Her derivatives and same orthography were not included in her vocabulary totals, because they were related to the original entries. Two examples will illustrate her derivational listings. REGIMENT (n.) was the base entry, followed by: regimental (adj.), regiment (v.), and regimentation (n.). SOLEMN (adj.) was the base entry, followed by: solemnity (n.), solemnly (adv.), and solemness (n.). Her largest derivational frequencies were 34 nominal, 22 adverbial, and 17 adjective forms.

Language of Definitions

Tables 4.21 and 4.22 report results on the language of definitions written by subjects on their vocabulary lists. There were no restrictions on which language subjects were to write their definitions, so results could reflect possible patterns of preference for one language or another at different levels. Table 4.21 collapses the results in relation to the threshold by levels, below and above. Table 4.22 expands the results to include all subjects for both levels.

The results reported in these tables indicated that subjects below the threshold wrote the greatest percentage of definitions in their first language, and the least in their

second language. Subjects above the threshold indicated a reversed pattern by writing more definitions in L2 than in L1. Table 4.21 shows that subjects below the threshold wrote 89.31% of definitions in L1, 7.38% in a combination of L1 and L2, and only 3.30% in L2. In contrast, subjects above the threshold wrote 58.59% of their definitions in L2, 10.31% in a combination of L1 and L2, and 31.09% only in L1.

Table 4.22 expands the results to indicate differences between subjects and levels. Subjects below had varying frequencies for total definitions and languages. Total amount of definitions varied from 762 for #14, 559 for #16, and 223 for #18. All subjects lacked some definitions: Joan and Sarah lacked definitions in the amounts of 48 and 54 respectively, while Katie lacked only 4 definitions.

Subjects Below the Threshold

Subjects below the threshold showed similarity in their use of first languages for definitions, and for the target language, but were varied in their use of the combined L1 and L2. For example, they preferred writing definitions in L1 with percentages of 96% for Katie (#18), 90.9% for Sarah (#14), and 84.07% for Joan (#16). Their use of L2 for definitions was also similar with percentages of 6.03% for Sarah, 0.715% for Joan, and 0.44% for Katie. However, subjects below the threshold were varied in percentages for the combined L1 and L2 definitions with 15.2% for Joan, 3.01% for Sarah, and 2.6% for Katie.

Subects below the threshold had individual differences in the language used for definitions. Sarah wrote 693 definitions in her native Portuguese, 23 in a combination of Portuguese and English, and 46 in English only. Joan (#16) defined 470 vocabulary words in her native Chinese, 85 words in Chinese and English, and only 4 in English.

Katie (#18) wrote 216 definitions in her native Chinese, 6 in Chinese and English, and only 1 definition in English.

Subjects Above the Threshold

Subjects above the threshold had similarities and differences. While the frequency totals for definitions were similar in range from 253, 200, and 158, the individual use of language of definitions differed. One pattern from the definitions indicated that subjects below the threshold omitted 106 definitions. Above the threshold both #3 and #17 defined all vocabulary, while #4 had 101 more definitions than vocabulary due to her expanded definitions, and omitted four definitions.

The individual proportion of language use for definitions varied between subjects. For example, Rosa (#3) emphasized her Chinese language for 184 definitions or 92.0%, 6 definitions were in Chinese and English, and 10 definitions in English accounted for 5.0% of her 200 definitions. Her pattern showed more resemblance to a beginner, #18, whose L1 totals were 216 for 95.0%. Margaret (#17), in contrast, emphasized L2 as she wrote 148 definitions in English for 93.6% of her total definitions of 158, nine definitions in Chinese and English, and only one word was defined only in Chinese. Judy's (#4) pattern was unique and differed from the other two subjects above the threshold in two ways. She wrote 200 definitions in English for 79.05% of her total 253 definitions. Unlike others above, she wrote 48 definitions in both her native Thai language and in English, which accounted for 18.9% of her definitions, while #17 and #3 wrote only 5.69 and 3.0 percents respectively. Judy also differed in the manner in which she wrote her L2 definitions as they were well organized with multiple and enumerated definitions. For example, Judy's vocabulary item, LANTERN (n), on her list from *Helen Keller* had three

definitions organized as follows: 1. Portable light; 2. A projector for slides; 3. The chamber in a lighthouse containing the light.

TABLE 4.21

Totals and Language of Definitions

In Relation to the Threshold

Level	Definition Total	Language and Percentage		
		L1	L1 & L2	L2
Below	1544	1379 (89.31)	114 (7.38)	51 (3.30)
Above	611	190 (31.09)	63 (10.31)	358 (58.59)

TABLE 4.22

Language of Definitions

For Subjects and Levels

		Languages and Percentage		
Subject	Definition	L1	L1 & L2	L2
Below				
16	559	470	85	4
18	223	216	6	1
14	762	693	23	46
Total:	1544	1379 (89.31%)	114 (7.38%)	51 (3.30%)
Above				
3	200	184	6	10
17	158	1	9	148
4	253	5	48	200
Total:	611	190 (31.09%)	63 (10.31%)	358 (58.59%)

Hypothesis Two

The focus of this hypothesis was on differences in book choices between levels. This hypothesis was operationalized by analyzing reading selections for reading levels and for genre. Genre was analyzed for both size and content. Results of these analyses are reported in Tables 4.23 and 4.24. Table 4.23 reports the reading level results, and 4.24 reports the genre analyses results. The individual book choices for subjects in relation to the threshold were previously reported in Tables 4.10 for subjects below the threshold and in Table 4.11 for subjects above the threshold.

Reading Level Analysis

Table 4.23 reports the results of reading level analysis of the books read by subjects in relation to the threshold. The reading levels were grouped in pairs, with the exception of the reading level (RL) of four, which was not paired because this level was the hypothesized threshold level in this study. The results of this analysis indicated both similarities and differences between levels and subjects within levels.

Differences Between Levels

The major difference evident from Table 4.23 was in the reading level with the most frequencies of books read. Subjects below the threshold read 11 books at RL 4 as the greatest frequency for beginners, and also had 68.72% of their new words in the reading level range of 2 to 4 with 1194 vocabulary. Subjects above the threshold had greatest frequency in RL 7-8 with 10 books and 7 lists. However, they also read similar amounts of books in RL 2-6 with frequencies of 9, 8, and 7, and had a frequency of 403 new words in reading levels 2-8, which accounted for 78% of their vocabulary.

A second difference between levels was evident from analyzing individual book choices. However, this difference was within patterns of similarities. For example, all subjects read books at different levels, but the nature of the books differed. When subjects below read books beyond their level, most were picture books (PB). When subjects above the threshold read books below their reading level, most books were young adult (YA).

A third difference was in the individuality of readers in book levels. While all subjects had gaps in reading levels, these gaps were in different levels and amounts. Subjects also differed in range and distribution of reading levels. The individual analysis for each subject is described briefly in relation to the threshold to illustrate the individuality of readers within and between levels.

BEGINNERS. Joan (#16) read 8 books evenly distributed with 3 each in RL 2 and 4. She stretched above her level to read one book each in RL 8 and 10, both were picture books. She had the most gaps in reading levels in 3, 5-7, and 9. Katie (#18) read 8 books, read the most in RL 4 with three books, and two books in RL 5 and one book each in RL 3, 6, and 7. Her lowest RL was 3, highest, 7. Her gaps in reading levels were in 2, with nothing in 8 or above. Sarah (#14) read the most books of beginners with 12. Her greatest frequency was in RL 4 with five books, her lowest reading level was RL 2 with three books, and she read beyond her level with two books, one each in RL 7 and RL 10. Both were picture books. Her gaps were evenly distributed in RL 3, 5, 8-9.

ABOVE THE THRESHOLD. All subjects above the threshold read across and below their vocabulary level. Rosa (#3) read the most books for all subjects with 17 books, and turned in 10 lists. Her most frequent reading level was RL 4 with five books.

She read four books in RL 5, and the remainder were evenly distributed with two each in RL 2, 3, and 8, and one each in RL 9 and 10. She lacked lists at most levels, and her gaps were only in RL 6 and 7. She ranged from RL 2 to 10. Margaret (#17) read the fewest number of books for subjects above the threshold with eight books: half were at reading level 7, the other four books were evenly distributed with one each from RL 2 to 5. She ranged from RL 2 to 7 with gaps in RL 6, and RL 8 to 10. The two books Margaret read below level were both YA. Judy (#4) read 13 books and turned in 8 vocabulary lists. She read evenly across reading levels, although she had more at RL 3 with three books, two each in RL 4, and 6-8, and one each in RL 10 and 12. She was the only subject who read a young adult book at RL 12., and the books read below her level in RL 3 and 4 were all young adult books.

TABLE 4.23

Book Choices by Reading Level

	Below		Above	
Reading Levels	Books/ Lists	Vocabulary/ Average	Books/ Lists	Vocabulary/ Average
2-3	7/7	776/110.8	9/6	105/17.5
4	11/11	418/38	8/6	93/15.5
5-6	5/4	148/37	7/4	87/21.7
7-8	3/3	99/33	10/7	118/16.8
9-10	2/2	209/104.5	3/2	62/31
12	0	0	1/1	45/45

TABLE 4.24

Book Choices by Genres

Level/ Vocabulary	Books/ Lists	Visual/ Size		Content			
		P	Y	HF	BI	F	I
Below 1650	28/27	19	9	6	10	9	3
Above 510	38/26	17	21	12	16	5	5

Finally, it is useful to summarize the individual differences in RL between subjects in relation to the threshold. The central frequency for beginners was RL 4 with 11 books. Two subjects, Sarah and Joan, read above their level with one book each in RL 10, both were picture books. Katie did not read beyond RL 7. The central RL frequency for subjects below the threshold was RL 7-8 with 10 books. Two subjects, Rosa (#3) and Judy (#4), read books in upper levels. Rosa read four books from RL 8-10, while Judy read four books from RL 8-12. One subjects (#17) read none beyond RL 7, and one subject (#4) was the only subject to read at RL 12 in the young adult genre. There were nine books ready by subjects above the threshold in RL 2-3, seven of which were young adult books.

Genre Analysis

Subjects' reading choices were also analyzed for genre in size, or visual, and content. Size was measured by frequency comparisons in book choices between the smaller, more visual picture books (PB), and the larger, less visual young adult genre. Content was measured by the subgenres of historical fiction (HF), fiction (F), biography (BIO), and information (I). The results of both genre analyses for levels in relation to the threshold are shown in Table 4.24. The results for individuals within levels are shown in Table 4.25 with percentages to indicate differences within and between levels.

TABLE 4.25

Genre Analysis

Level	Content				Visual	
Below	HF	F	BIO	I	PB	YA
16	2	3	3	0	6 (75.0%)	2 (25.0%)
18	0	2	6	0	3 (37.5%)	5 (62.5%)
14	4	4	1	3	10 (83.3%)	2 (16.6%)
Total	6	9	10	3	19 (67.85%)	9 (32.1%)
Above						
3	6	4	6	1	10 (58.8%)	7 (41.4%)
17	2	2	3	1	4 (50.0%)	4 (50.0%)
4	4	0	7	2	3(23.07%)	10(76.92%)
Total	12	5	16	5	17 (44.73%)	21 (55.26%)

Genre Analysis: Visual

The collapsed results for reading choices for visual are reported in Table 4.24. These results show one picture, while the individual results in Table 4.25, show another. For example, in Table 4.25, subjects read nearly equal amouts of picture books below and above the threshold with frequencies of 19 and 17 respectively. However, these figures accounted for different percentages of the total frequencies for each level: 67.85% below, and 44.73% above.

Table 4.25 reports the individual results for the same data. Percentages ranged in decreasing amounts within both levels for reading picture books. Below the threshold, the highest percetage was Sarah's with 83.3%, 75.0% for Joan (#16), and the lowest was 37.5% for #18. Above the threshold, percentages also decreased from the highest for Rosa (#3) with 58.8%, 50.0% for Marget (#17), and 23.07% for Judy (#4).

Between levels there were individual similarities and differences. Similarities were found in pairs between levels. For example, there were two subjects who read ten picture books each, #14 below the threshold, and #3 above, but they differed in percentage of picture books to their total frequencies: 83.3% and 58.8% respectively. Another pair between levels were similar in their percentages and totals: #18 and #4. Katie (#18) read 3 picture books for 37.5% of her 8 books, while Judy (#4) read 3 picture books for 23.07% of her 13 books. The remaining pair between levels, Joan (#16) and Margaret (#17) differed in their choices of visual reading material. Joan chose 6 picture books for 75.0% and two young adult books for 25.0%, while Margaret (#17) read 50.0% in both genres with four each.

The analysis of the reading choices for books which were less visual showed more differences between levels. For example, subjects above the threshold read twice the amount of young adult books than subjects below with frequencies of 20 and 9 respectively. This was in contrast to the similar amount of picture books read by both levels. Below the threshold, subjects #16 and #14 both read only two young adult books with percentages of 25.07% and 16.66% respectively. Above the threshold, #3 and #4 read similar amounts of young adult books with 7 and 10 respectively. However, their percentages differed with 41.4% Rosa, and 76.92% for Judy. Katie (#18) below the

threshold and Margaret (#17) above the threshold were similar in frequencies of young adult books with 5 and 4 respectively, but differed in their percentages of 62.5% and 50.0%.

Genre Analysis: Content

The results of this analysis indicate differences and similarities between levels and within levels. The first difference between levels was seen in the rank order of the subgenres. For example, biography accounted for 26 books and 39.3% of the total 66 books read during the study. Both levels read the most in this genre with 10 for beginners, and 16 for subjects above the threshold. The second most frequently read subgenre was historical fiction, which accounted for 27.27% with 18 books, 6 read by beginners, 12 by subjects above the threshold. The third subgenre was fiction, which accounted for 21.21% of the total, with more read by subjects below the threshold with 9 books, and 5 by subjects above the threshold. The fourth and least read subgenre was informational books with only 12.12% of the total, but was slightly more frequent for subjects above than below the threshold with 3 and 5 respectively. Subjects in both levels read the most books in biography, the least in information. However, the levels were reversed between fiction and historical fiction, as subjects below the threshold chose more fiction, while subjects above chose more historical fiction.

Individual differences were seen between subjects and levels. One difference was evident in Table 4.25 in contrast to Table 4.24 with the collapsed data for levels. For example, one subject, (#18) below the threshold had two gaps, one each in historical fiction and information, and another subject (#16) read none in information. Only one subject above the threshold (#4) had a gap in fiction.

These gaps in individual subgenres also indicated differences in distribution in reading patterns between subjects. Subjects below had different patterns. Katie (#18) had two gaps, and focused her reading choices on biographies with six, and only two in fiction. Joan (#16) had one gap in information, but had similar distribution across genres with equal frequencies of three each in biography and fiction, and two in historical fiction (both were young adult). Sarah (#14) had no gaps, but equal frequencies in historical fiction and fiction with four each, three in information, and one in biography. Subjects above the threshold also showed variation. Subject #4 was the only subject above the threshold with a gap in fiction. She concentrated on biography with 7 books, read 4 in historical fiction, and two in information. Margaret (#17) distributed her reading choices across the subgenres with three biographies, two each in historical fiction and information, and one in fiction. Rosa (#3) read equally in historical fiction and biography with six each, read four fiction and one informational book.

Hypothesis Three

The focus of this hypothesis was on differences in the amount of dictionary dependence. This hypothesis was operationalized by analyzing the amount and language of definitions, as well as how the dictionary was used. The vocabulary and definition frequencies were previously reported in Table 4.9, and the language frequencies were also reported in Tables 4.21 and 4.22.

The results of these analyses indicated several differences between levels. The first difference was in the total frequencies in relation to the lists of books read. In other words, subjects below the threshold had more words and definitions for a similar amount of lists. Subjects below read 28 books with 27 lists, listed 1650 new words, and defined

1544 words. In contrast, subjects above read 38 books with 26 lists, 510 new words and 611 definitions. While the number of books differed, the number of lists was nearly identical with 27 and 26. Therefore, subjects below the threshold needed to define more words than subjects above the threshold. This indicated a greater use of dictionaries for beginners than for those above the threshold.

The second difference between levels was found in an inverse relationship between vocabulary and definitions, in that subjects below the threshold had more vocabulary than definitions, while subjects above had more definitions than vocabulary. For example, there were 106 definitions missing from beginners' vocabulary lists. This contrasted to subjects above the threshold in that #3 and #17 defined each word for an equal number of vocabulary and definitions, while #4 wrote multiple L2 definitions for 101 more definitions than her vocabulary.

The third difference in dictionary use was in the language of the definitions. Subjects below the threshold wrote 1379 definitions in their native languages for 89.31%, and subjects above wrote 190 definitions in their native languages for only 31.09%. Subjects below needed to define more words in their native languages than subjects above the threshold.

The fourth difference in dictionary dependence between levels was evident in the absence of more vocabulary lists for subjects above the threshold, than for those below. Subjects above lacked lists for 12 books, while only one list was lacking for one subject below, #18. This indicated less dependence on the dictionary and an ability to read without needing to make lists or consult the dictionary.

The final difference between levels in dictionary use was found in the way the dictionary was used by different subjects. Subjects below the threshold appeared to use the dictionary as an aid to comprehension for reading. This was implied by: (a) greater frequencies of new vocabulary on their lists, which suggests a greater need to define more words; (b) greater frequency of L1 definitions; and (c) smaller frequency of L2 definitions and few L2 derivatives. In contrast, subjects above the threshold appeared to use the dictionary more as a tool for learning in addition to or beyond the function as an aid to reading comprehension. This shift was implied by the following contrasts to beginners: (a) smaller frequencies of new words with less need to define every word, and smaller frequency of L1 definitions; (b) greater frequency of both L2 definitions and L2 derivatives; and (c) more organized vocabulary development. Margaret (#17) and Judy (#4) specifically illustrate the latter two points. Margaret's creativity on her TOEFL exercises illustrated her use of the dictionary as a learning tool in expanding L2 derivatives. Judy (#4) used her dictionary as a learning tool by identifying derivative forms of her new words, and listing multiple L2 definitions for 79.05% of her new vocabulary. Judy also indicated on her final survey that the dictionary had enabled her to develop more vocabulary and had increased her dictionary skills during this study.

QUALITATIVE DATA

The results in this section bring together previously reported results, but within an individual and group perspective through profiles. The profiles include individuals, groups or levels in relation to the threshold, and a profile of the threshold, hypothesized at level 4 for this study.

Individual Profiles

The individual profiles provide background data for each subject, a brief summary of vocabulary and reading results, and distinctive features unique to each subject. The quantitative data reported frequency and amounts which could suggest trends and patterns, but did not always reveal individual learning patterns. The purpose of the individual profiles is to highlight each individual's patterns in learning L2 vocabulary and reading within a developmental framework of the semester long study.

Beginners

Sarah (#14)

Background

Sarah was 40 years old, spoke Portuguese, had a college degree in history, and taught elementary school in Brazil. She was new to the United States when she entered this study, and she had no prior experience in English. Her pretests indicated that she was a beginner in category 3 with all four tests below the threshold (0-4). Her weakest test was pronunciation at level 1.0, and her silent reading and synonyms-antonyms were similar at levels 1.5 and 1.6. Her spelling was her highest vocabulary test at level 2.8. Her posttests indicated that she was still below the threshold, but showed development within category 3, in that she was above the threshold on one test, spelling, with an increase of 3.5 levels. She showed increases of one level in two tests, silent reading and synonyms-antonyms, but a decrease in pronunciation.

Vocabulary and Reading Summary

Sarah read twelve books, the most for beginners, listed 816 new words, defined 762, and omitted definitions for 54 words. In syntax, her vocabulary lists included 251

nouns, 348 verbs, 121 adjectives, 67 adverbs, and 29 others (prepositions, pronouns, and conjunctions). She used her first language, Portuguese, for 693 definitions or 90.0% of her total definitions, English for 46 definitions or 6.03%, and wrote 23 definitions in a combination of L1 and L2. (Note that Sarah wrote the L2 definitions on her first list because she thought it was required, and not by choice. The remainder of her definitions were written in her language of choice, Portuguese). Phonologically, her vocabulary lists lacked L2 pronunciation, focused on words of one or two syllables, and listed 99 initial s-consonant clusters, including 15 sCC initial clusters.

Sarah turned in 12 vocabulary lists for 12 books. She focused on RL 4 with five books; three in RL 2, two in RL 6, and one each in RL 7 and 10. She read ten picture books and two young adult books. Her content genre choices were 4 each in historical fiction and information, 3 fiction, and 1 biography.

Development

Vocabulary development emerged gradually during the study from her 0-level English and her reading. She had a greater frequency of verbs (348) to nouns (251), with more irregular (13) than regular (3) verbs. The first hint of development was in the appearance of the first irregular verb form, BLOW-BLEW-BLOWN on her vocabulary list for her eighth book, *My Little Island*, midway in the study. The remainder of irregular verb forms were found on subsequent lists, so irregular verb forms were an emerging development. Another pattern occurred near the end of the study, as one synonym and one antonym written in L2 were found on her list for her eleventh book, *The Upstairs Room*, as well as evidence of derivative awareness on the same list, i.e.: WOBBLY-WOBBLE.

Her reading choices also indicated a pattern of language development. She focused her first six books on fiction and information, with three each. However, she chose her sixth book, *Count Your Way Through Canada*, because she had prior background knowledge of French. Following that book, her choices became more focused on content, as she read four historical fiction books, one biography, and only one fiction, in contrast to the first six books. Another change or evidence of growth was seen from her first ten books, in that they were visual picture books, while her final two books, were young adult.

Comments

Sarah was a determined learner and reader. She worked hard to build her knowledge of English from 0-level. Her posttest scores showed development in three areas, and she has continued to develop since this study. Because Sarah has continued as my student since this study, I could verify her L2 development by further testing and observation. For example, three months following this study, I administered level 4 of the silent reading test for a result of a reading level of 3.2. This result indicated an increase of one level since her posttest reading level of 2.3. Furthermore, one year since the start of this study, she was able to audit two classes at Oklahoma State University: one in education, and one in English. Her strength was in her native language background as a cognate base, due to orthographic similarities between Portuguese and English. She indicated that she was able to understand much of her reading because of this base. However, there were times when cognates caused some confusion in meaning, but it was not a major problem for her. Interlingual difficulties were more evident in spelling than on the meaning level. Her most troublesome spelling differences between

languages were: cognates in English, which requires two consonants, as in commission, but only one in Portuguese; and the English /-ity/ suffix, which is spelled with a final /-e/ in Portuguese. On the other hand, her cognate base in spelling often showed similarity to subjects above the threshold. For example, she wrote SURPRISE correctly on her pretest, as did subjects above the threshold, while the other beginners did not. Her growth in spelling was obvious during the study, as she increased 3.5 levels on her spelling posttest.

Sarah enjoyed the group sessions. Although she was reluctant to present her reading orally, midway in the study she was able to speak about her favorite book, *Sarah Morton's Day*. She indicated on her final survey that she had enjoyed the study and that it had increased her interest in reading. She also stated that the books had provided context for vocabulary, and that the most helpful aspect of the study was the individual sessions and just reading.

Joan (#16)

Background

Joan spoke Chinese, was 35 years old, and had a medical degree from China. Her prior experience with English was one year, and she was new to this country when she entered this study. Her pretest category was beginner (1-3), with one test above the threshold, spelling, at 4.8, and three tests below the threshold: level 3.0 in pronunciation, 2.7 in synonyms-antonyms, and 3.6 in silent reading. Her posttests indicated a change from category 3 on her pretest to category 2 on posttest with two tests below and two above the threshold (2-2). However, this change in category was inconsistent, in that her decreases were in her highest pretests, and her gains were in the two lowest. Specifically,

her spelling, which was above the threshold at 4.8 on the pretest, dropped one level below the threshold on the posttest to 3.9 on the WRAT-R.

Vocabulary and Reading Summary

Joan read 8 books with 8 vocabulary lists, listed 607 new words, defined 559, and omitted definitions for 48 words. In syntax, she listed 298 nouns, 192 verbs, 64 adjectives, 27 adverbs, and 26 others. She used her first language, L1, for 84% of her definitions, L1 and L2 for 15.0%, and L2 for only 0.712%. In pronunciation, she included phonetic transcripts for 424 new words or 69.85% of her total vocabulary, and 70.0% were either one or two syllables. She also listed 49 initial s-consonant words and twelve were words beginning with three initial consonants.

Joan read 8 books, three books each at RL 2 and 4, and read beyond her level with one book each in RL 8 and 10. In genres, she read six picture books and two young adult books, three each in fiction and biography, and two in historical fiction.

Development

The characteristics of Joan's vocabulary learning emerged in three patterns: repetition, and a focus on pronunciation and meaning. Repetition was the first pattern evident from her vocabulary lists and reading. Her vocabulary lists often had words which appeared more than once on the same list for one book, or on several lists for different books. For example, INCUMBENT appeared on her list three times for *Bill Clinton* at a reading level of 10.5; and SHUTTER appeared on lists for *The Little House* and *Mieko and the Fifth Treasure*. Rereading a text was another form of repetition for Joan, as she read *Riptide* four times, and reread *Mieko and the Fifth Treasure* three times.

Pronunciation was the second pattern evident on her vocabulary lists as she included phonetic transcriptions for 69.85% of her total new words. Her third pattern of vocabulary learning was a focus on meaning in several ways: multiple readings, verbs, semantic level of language and reading choices. First, meaning was Joan's primary purpose for rereading her books. Second, meaning was also part of her emphasis on verbs. She listed 30 regular and 10 irregular verb forms on her lists, which was the highest frequency of all subjects. She also focused on phrasal verbs more than others. After the pretest, Joan indicated that she knew the meaning of each word separately, but not together. It was not surprising to find more phrasal verbs on her lists. A third emphasis on meaning was evident at the semantic level with frequencies of 20 synonyms and 9 antonyms written in English embedded in her L1 definitions. A fourth aspect of meaning which was unique to Joan's lists were definitions in the form of phrase completions or collocations in L2, also embedded in her L1 definitions. As examples, her vocabulary entry SIGH included her L1 definition, and was completed by OF THE WIND in English, and the word STIFFNESS was completed with OF MANNER.

Fifth, her reading and genre selections also showed development and a focus on meaning. In her preference for six picture books to two young adult, she indicated on her final survey that the visual helped her to understand the story, but the young adult books helped her to read faster. Comparison between books also related to her focus on meaning. For example, she read two biographies on Bill Clinton at different reading levels of RL 4 and 10. When asked which she preferred and why, she indicated that the more difficult book had more details. Chronologically, her pattern of reading developed

toward meaning through content change, in that her first three choices were fiction (PB), the next two were historical fiction (YA), and the last three books were biographies (PB).

Comments

Joan worked hard during the study. Her weakest area was in listening, which she had mentioned on the initial survey. Although she had also indicated a weakness in speaking, she missed only one group session and was comfortable with orally presenting her favorite books, *Riptide* and *Mieko and the Fifth Treasure* to the group.

Joan's strengths were in a stronger reading vocabulary over listening and her focus on meaning over form. Both enabled her to read and test in category 2 at the end of the study. She also used compensatory strategies, such as in pronunciation and repetition. However, listening continues to be a weak area for Joan, but further work in spelling and pronunciation should easily improve this area.

Katie (#18)

Background

Katie was 39 years old, spoke Chinese, had a graduate degree in biochemistry, and was new to the United States when she entered this study. Her prior experience with English was ten years ago in college for two years. She pretested in the beginner category 3 (0-4) with all tests below the threshold. Her highest pretest was spelling at 3.5 and her lowest was silent reading at 1.7. Her posttests showed little change in pronunciations, a slight decrease in spelling, but a one level increase each in synonyms-antonyms and in silent reading. The analysis of her spelling tests indicated problems with vowel substitutions for long and short /e/ as REACH was spelled "rich" and EDGE was spelled "age". She also deleted some syllables by omitting vowels. For example,

she omitted /or/ in CORRECT, spelling it "crect"; and omitted /i/ in CIRCLE, spelling it "cricle".

Vocabulary and Reading Summary

Katie read 8 books and turned in 7 vocabulary lists. She listed 227 new words, defined 223, and omitted definitions for 4 words. In syntax, she listed 135 nouns, 56 verbs, 34 adjectives, one adverb and one preposition, and she listed pronunciation for 114 words or 50.22%. Of her vocabulary, 85.0% were one or two syllable words, and 35 words were initial s-consonant clusters. She wrote 216 definitions in her native language, Chinese, for 96.0%, 6 definitions in both Chinese and English, and only one definition in L2.

Her reading range for her 8 books was from RL 3 to 7, with none above 7. Her genre selections included three picture books and five young adult, and in the content genres she read six biographies and two fictional books.

Development

Katie's vocabulary development was characterized by major emphasis on the phonological level of language with only minor syntactic and morphological awareness. Katie's major focus was on pronunciation in two ways. First, she included pronunciation for 50.22%, and her lists concentrated on one to two syllable words. She also listed 35 new words with initial s-consonant clusters. Second, pronunciation was also part of the individual sessions as Katie wanted to read aloud, and tutoring included spelling and stress-related pronunciation as in the homonyms COARSE and COURSE, and changes in CONstruct and conSTRUCT. Katie's lists showed only minor syntactic and morphological awareness. Her syntactic focus was on nouns over verbs, and the only

derivatives were plural irregular noun forms with the irregular listed first as OXEN-OX. Morphologically, she listed only three irregular verb forms, with no other derivative awareness.

Her pattern of reading focused on the young adult genre, the biographical subgenre, and on reading RL 4 with three books, two in RL 5, and one each in RL 3, 6-7. She indicated on the final survey that the visual aspect of picture books had distracted her and slowed her down. She also preferred biographies because they were realistic, and in relation to her favorite book on Hillary Clinton, the information was new to her. She missed two group sessions, but was comfortable with orally sharing two biographies on Louise Braille and Hillary Clinton with the group.

Comments

Katie showed some vocabulary development on the posttest in increases of one level each in synonyms-antonyms and in silent reading, but it was insufficient to change her category in relation to the threshold in this study. Her pattern of vocabulary learning showed concentration on pronunciation and nouns with the majority of new words only one or two syllables. Morphologically, with the exception of three irregular nouns and verbs, more complex derivatives were not apparent as part of her learning strategies.

In reading, she was consistent in her choices of genres based on her interests, but reading levels were not above seven. Her strength included her focus on pronunciation to compensate for her weakness in spelling. She was also the only beginner who was able to read a book without submitting a vocabulary list. Since this study, Katie has been able to take some classes at the university as a special student and plans to take the TOEFL.

Because her reading levels were not above seven, the experience at the university level should increase both her reading and pronunciation.

Finally, Katie also indicated on her final survey that the books had helped her read faster when it was interesting and that it encouraged reading. She indicated that the most helpful aspect of the study was reading, but that in the group it was difficult to understand other students' accents. She also thought that learning vocabulary through reading was preferable to other classes.

Subjects Above the Threshold

Rosa (#3)

Background

Rosa was 28 years old, spoke Chinese, and had been in the United States for over one year when she entered this study. Her experience in English was limited to middle school. Her pretest scores placed her in the intermediate category 2 (2-2) with two scores below the threshold at level 3 each in pronunciation and silent reading, and two tests above with synonyms-antonyms at level 5.7 and spelling at 5.0. Her posttests showed gains in all tests, which indicated development to category 1 (4-0) with all tests above the threshold. Her highest posttest was synonyms-antonyms at level 7.7, and her lowest was pronunciation at 4.0.

Vocabulary and Reading Summary

Rosa read 17 books and turned in 10 vocabulary lists. She listed 200 new words with equal amounts of definitions. She wrote 184 definitions in her native language, Chinese, for 92.0% of her total definitions; she wrote six in Chinese and English and ten in English. In syntax, she listed 97 nouns, 70 verbs, and 33 adjectives with no adverbs or

prepositions. In pronunciation, she included phonetic transcriptions for 64 words or 32.0%. Thirty percent of her vocabulary had three or more syllables, and 69.5% were one or two syllable words. She also listed 26 initial s-consonant cluster, and 3 initial consonant clusters beginning with /s/. Her spelling tests indicated some difficulty in syllable juncture, but less problems with double consonants than beginners. For example, unlike beginners, she included the double consonants in her spelling of /mm/ in COMMISSION, but like beginners, she spelled the double consonant /ss/ in the same word as /-ttion/.

Rosa read 17 books with 10 lists. Her reading levels ranged from RL 2-10, (with the most in RL 4 and 5 with frequency of 5 and 4, respectively). In genres, she chose the more visual, with ten picture books and seven young adult books. In content, she read six books each in historical fiction and biography, four fiction and one in the information subgenre.

Development

Her vocabulary showed development in morphemic awareness and a focus on pronunciation, which was one of her weaker areas on her pretest. She showed a gain of one level from 3.0 to 4.0 on the posttest in pronunciation, and was the only subject above the threshold who included L2 pronunciation of her new words. Her morphemic awareness was evident from her vocabulary definitions, and a few as individual morphemes in L2 were embedded in her L1 definitions. In contrast to subjects below the threshold, Rosa indicated only the morpheme rather than the whole word. For example, her entry for TERRITORY included the suffix, /-ial/ with her L1 definitions. Morphemic awareness was also evident in the individual and group sessions. For example, her

vocabulary entry for *In Coal Country* included the word, NOSTALGIA, and a discussion about the adjective morpheme /-ic/. During one of the group sessions, she asked about the word AUTHENTIC and the discussion included the noun suffix, /-ity/ with the change in pronunciation.

The central characteristic of Rosa's reading development was her ability to move beyond the mechanics of reading and to read for meaning by choosing books based on her background and interests rather than on the ease of the text. Comments made during the study and on her final survey illustrate how background effected reading choices for this ESL adult. Her choices reflected her background and interests in several ways.

First, Rosa's background as a visual learner was obvious in her preference for the more visual picture books over the less visual young adult genre. Her visual nature was also verified in her comment made on the final survey, that the books had helped her to "picture the story in her mind". In addition, throughout the study, she showed an appreciation of the illustrations, and specifically commented on them in the biography of Ben Franklin, as "a beautiful little book", and as "colorful and beautiful illustrations" in *In Coal Country*. However, there was one aspect of a specific picture book, *Old Cat*, which hindered her comprehension of the text due to the use of flashback, a literary device. The time changes between present and past in this book were subtle and were represented both visually and verbally. Present time was the author's view of the cat, represented visually by a small framed illustration on one page, and verbally in the text with third person pronouns. In contrast, past time, the cat's stance and memory, was represented visually by full two-page illustrations, and the use of first person pronouns in

the text. Once the format of the text was explained to Rosa, she understood why it had been difficult for her to read.

Her second focus was choice of books, with content "based on life", rather than on fiction, taken from another comment from her final survey. This aspect was evident in her choice of twelve books which were either biographies or historical fiction. She also indicated that she wanted to understand the times.

A third aspect of her reading was a developing interest and awareness of background for writing and reading a book. This development was most obvious in her comments on *In Coal Country*, in that she was fascinated by the author's use of her own childhood experience to write the story. In reading the biography of Janet Reno, she indicated that she lacked the background in politics to understand the text fully. And Rosa's confusion in reading *Old Cat*, also provided experience in background for reading a text.

A final aspect of her reading development was her ability to respond to content. She indicated that her favorite book in the study was *Sadako and the Thousand Paper Cranes* because it was a touching story and it had inspired her. This was one of the books she shared with the group.

Comments

Rosa was an enthusiastic reader who thoroughly enjoyed reading the books and participating in the study. She was the only subject above the threshold who was not studying for the TOEFL, so she was not limited by any other agenda. While she missed a few group sessions due to time commitments, she always wanted to share her reading with the group. She also indicated on her final survey that the books had helped her with

popular vocabulary in literature, and were a model for sentence structure, which differed from Chinese. Since this study, Rosa has taken a class at the university as a special student and plans to take the TOEFL. Her increases on all her posttests as well as her vocabulary and reading development during the study indicated that she has a good foundation in English as a second language. Her strength was in her enthusiasm for reading and learning, and she will continue to develop further proficiency in her weak areas, which were minimal.

Margaret (#17)

Background

Margaret was 28 years old, spoke Chinese, had a degree in a technical field and had been in the United States for two months when she joined this study. Her prior experience in English was four years in college. She rated herself as an average reader in English at the beginning of the study. She had planned to take the TOEFL during the study and passed it with a score of 550 on the first attempt.

Her pretests placed her in category 2 (2-2) with two tests below the threshold, 2.7 in synonyms-antonyms and 3.5 in silent reading, and two tests above the threshold with level 4.0 in pronunciation, and 6.4 in spelling. Her posttests showed development in all areas so that she changed category to 1 with all four tests above, and her highest score was still in spelling at 6.7 and her lowest was in silent reading at 4.5. Her largest gain was in synonyms-antonyms with an increase of 3.5 levels and one level in silent reading. Spelling analysis for Margaret indicated minimal problems with double consonants and syllable juncture. She also showed some difficulty with insertions on her spelling

posttest. For example, first she inserted an /r/ in OPPORTUNITY by spelling it "orpertunity", second, she inserted the vowel /u/ in CIRCLE by spelling it "circule".

Vocabulary and Reading Summary

Margaret read 8 books and turned in 8 vocabulary lists. She listed 158 new words and an equal amount of definitions. In syntax, she had 89 nouns for 56.32%, 56 verbs and only 13 adjectives. Adverbs and other syntactic classes were absent from her lists. Pronunciation was not part of her learning strategies and 75.94% of her vocabulary was one or two syllable words, with only 20 initial consonant clusters beginning with /s/, including only 3 initial /sCC/ clusters. She wrote 148 definitions in English for 93.67% of her definitions, 9 in English and Chinese combined, and only one in Chinese. Her use of Chinese in her definitions was limited to one book.

Margaret read 8 books with 8 vocabulary lists and a reading range from RL 2 to 7. She concentrated on RL 7 with four books at that level and one book each from RL 2-5. In genres, she read an equal amount of four picture books and four young adult books. In content, she read three biographies, two each in fiction and information, and one historical fiction. She read all books only once.

Development

Margaret's development was influenced by her plan to take the TOEFL during the study because she focused her attention on her need to prepare for the TOEFL. Her vocabulary development was unique among the subjects in this study, but her strategies and development were not as apparent from her reading and vocabulary lists. Her vocabulary definitions were 93.67% in English as short and multiple phrases. Her only use of Chinese was on one list with specific types of birds, fish or insects.

However, the unique characteristics of her vocabulary development appeared on supplementary TOEFL exercises. Although these exercises were not part of the total analyzed data in this study, because her use of them as a learning tool was exemplary, it was important to include aspects of them in her profile. The major characteristic of Margaret's vocabulary learning strategies was her ability to be creative with the language. Because there were so many examples of the richness of her creativity and language awareness, it was necessary to categorize them collectively into morphemic, orthographic and semantic strategies.

Morphemic strategies were found in her understanding of morphemes in derivative and word analysis. For example, she included derivative "osmotic" for the word "osmosis, and "inauguration" with "inaugural". She also included common roots with different prefixes in list form in the margin near the vocabulary word. For example, the vocabulary DECEPTIVELY was the basis for her listing noun forms with the root /-cept/ as: conception, deception, and perception, followed by the verb forms of the same root: conceive, deceive, and perceive.

Orthographic creativity was another unique strategy which Margaret used consistently in her exercises. She would either substitute letters, rearrange, or delete them. The following are several examples of this pattern with the vocabulary item listed first, and her changes listed second. These changes were written either above, or near the vocabulary and most also included Chinese.

1. delicate – dedicate (one-letter substitution).
2. alert – alter (letter rearrangement).
3. scarce – scare – scale (deletion and substitution).

4. dominant – nominate (substitution in initial consonant and suffix).

5. fracture – feature (internal substitution).

Margaret's third learning pattern was semantic and indicated her awareness of the semantic relationship between and within words. The within-word pattern resembled word analysis, in that parts of words were circled and defined separately, such as RATIO within RATIONING. The between-word pattern was either cause and effect, or synonyms. Her cause and effect connections were within the context of a sentence with two words underlined and defined, sometimes in Chinese, as in the example of VOLCANO and ERUPTION. Another pattern to her synonyms was to connect words with circles and lines across the page. For example, she circled CORN-CROP-GRAIN from three unrelated sentences and connected them, and then listed the three L2 words together in the margin on the second page.

Her last synonym pattern was evident in how she used the end-of-lesson tests. Rather than choosing the correct answer from the multiple-choice or matching, instead she used the vocabulary as an opportunity to practice her knowledge of L2 synonyms. In addition, Margaret frequently repeated synonyms across the lessons and tests.

Finally, there was a major contrast between her vocabulary on the lists and her strategies on these exercises, in that she wrote Chinese transcriptions for many words on the TOEFL exercises, but very few on the vocabulary lists.

Margaret's reading development indicated a similar distribution between biography, historical fiction and information genres, and an equal frequency of visual to young adult genres. She also read no books above RL 7, and she read each book only once. She missed several group and individual sessions, but frequently shared her

reading orally. Her favorite books were *Baseball Saved Us* and *The Canada Geese Quilt*. She liked the story and relationships in *The Canada Geese Quilt*, and was interested in why the young boy in *Baseball Saved Us* had no name. She commented after reading *The Year of the Panda* that the idea was accurate, but the way in which the story was written was uninteresting. Her comments from her reading suggest an awareness of different ways to present a story, and her ability to read for meaning in a second language.

Comments

Margaret's vocabulary and reading patterns were influenced by her concentration on preparation for the TOEFL, which she passed on the first attempt. Her vocabulary lists and reading patterns presented a limited view of her unique vocabulary learning strategies and creativity, which only emerged on her TOEFL exercises. Her comments from her final survey indicated her preference for the TOEFL exercises over the reading, and that the exercises had been the most helpful aspect of the study. Her exemplary use of these exercises indicated her advanced L2 learning ability. Since the study, she has indicated that this ability developed in the United States through a combination of this present study along with other classes she was attending at the time. She also indicated that her prior experiences in China had not focused on the relationships between words, but had taught vocabulary only as individual words. Finally, Margaret is currently in a graduate degree program at the university in a technical field.

Judy (#4)

Background

Judy was 29 years old, spoke Thai, had a graduate degree in information technology, and was new to the United States when she entered this study. She had 10 years prior experience in English, and indicated on her initial survey that her major difficulty in English was speaking. She was also studying for the TOEFL.

Judy pretested in category 1 with all four tests above the threshold. Her lowest pretest was silent reading at 5.3, and her highest was 8+ in pronunciation. On her posttests, her highest posttest was on synonyms-antonyms at 11.3 for a gain of 4.3 levels, and her lowest was pronunciation at level 5.0, for a loss of 3 levels. Her spelling analysis on both tests indicated no problems in this area.

Vocabulary and Reading Summary

Judy read 13 books and turned in 8 vocabulary lists, listed 152 new vocabulary with 253 definitions, with an average of 19 words per list. In syntax, she had decreasing frequencies of 66 nouns, 50 verbs, and 32 adjectives and four phrases. In phonology, her words of one or two syllables accounted for 65.78% of her total vocabulary, with frequencies of 33 and 77 respectively. Her frequencies for initial consonant clusters beginning with /s/ were 24 sC and 4 sCC. She wrote only 5 definitions in her native language Thai, combined Thai and English for 48 definitions, and wrote 200 in English for 79.0% of her definitions.

Judy read 13 books and turned in 8 lists. Her reading ranged from RL 3 to 12 with an even distribution across the reading levels: three books at RL 3, two each in RL 4 and 6 to 8, and one each in RL 10 and 12. She was the only subject who read at RL 12.

In genres, she concentrated on young adult with ten books, and read three picture books. In content, she read seven biographies, four historical fiction and two information.

Development

Judy's vocabulary lists were unique in that both her vocabulary and definitions were well organized. The quality of her lists indicated that she had developed an awareness of the morphemic and semantic levels of English. First, her vocabulary entries were listed with a base form, followed by derivative forms, with syntactic function and also included forms which were the same orthographically. Her derivational forms were listed as whole word entries. Two examples were previously cited, but two additional ones are included here to further illustrate her pattern. From *The Day It Rained Forever*, she listed DISTRACTED (adj.) as the base vocabulary entry, followed by: distractedly (adv.), and distract (v.). From *Bill Clinton* by Landau, she listed INCUMBENT (n.) as the base word, with incumbent (adj.) and incumbency (n.) as derivatives. She was the only subject who listed her vocabulary in this manner. Her derivative frequencies included 34 nouns, 22 adverbs, and 17 adjectives. Specifically, the most frequent morphemes were nominal morphemes: 13 /-ness/ and 9 /-er/; adverbials: 10 /-ly/; 5 /-ingly/; and 4 /-ily/.

Judy's definitions were also well organized and showed her semantic awareness of multiple meanings. Her definitions were enumerated and included phrases with a few Thai equivalents.

Judy's reading development indicated four patterns: lack of dependence on the visual for comprehension; a focus on biography and history; an ability to respond to content, but view it separately and analytically; and an ability to read without making a

vocabulary list. These patterns were evident from her reading choices, and her comments made either during the study or on her final survey.

First, her lack of dependence on the visual for comprehension was evident in her genre choices with only three picture books, and ten young adult. On her final survey she indicated that the visual had been useful to "clarify the content", but it was obvious that it was not essential. She was also the only subject to read a book at RL 12, which was a nonvisual information text, *The American Revolution.*

Her second pattern was her preference for history and biography, which she mentioned on her final survey. Her genre choices included seven biographies, four historical fiction, and two informational books, which were historical, i.e., *The Pioneers* and *The American Revolution.* Her third pattern was an ability to read for meaning and respond to content, but to view content and writing analytically. In other words, she was able to analyze the style and language in which it was written. For example, she commented on the biography of Bill Clinton (Landau), that while she liked his compassionate background, she thought that the book lacked interest and idioms. Her fourth pattern was evident in her ability to read five books without needing to make a vocabulary list, indicating less dependence on the dictionary.

Comments

Judy was also preparing for the TOEFL exam during this study, and used her vocabulary lists effectively to expand her vocabulary and definitions. She indicated on the final survey that the vocabulary lists had increased her use of the dictionary. This seems to be similar to her use of picture books, in that the picture books and the dictionary were supplementary, rather than essential to comprehension. In the case of her

dictionary use, it was an instrumental learning tool and was evident in her organization of both vocabulary and definitions. Judy attended most individual and group sessions, and presented several books. For example, she shared *The Pioneers* with the group and recommended it for learning about the lifestyle. On her final survey,she indicated that the reading had increased her vocabulary, rate, interest in reading, and also was the most helpful aspect of the study. Her favorite book was *Helen Keller* because of the content. Since this study, Judy has passed the TOEFL and is currently in a graduate degree program at the university.

Level Profiles

Subjects Below the Threshold

Subjects below the threshold had both similarities and differences in vocabulary and in reading. Similarities in vocabulary between subjects were evident in the large amount of new words distributed in most syntactic classes, an emphasis on form, use of native languages for writing definitions, dependence on dictionaries for comprehension, and an elementary awareness of morphemes. Similarities were also found in the variation of individual reading levels, yet with a group focus on reading levels two to four. Subjects below the threshold also showed individual development in their ability to read critically in a second language.

Subjects below the threshold showed individual variation in vocabulary and in reading. Variations in vocabulary were evident on all linguistic levels and in learning strategies. First, subjects varied in total frequencies of vocabulary and average number of words per book. For example, Sarah (#14) had the highest frequency of new words, but was second in average of 68 words per book, while #16 had the second highest

frequency, but largest average of 75 words per book. Katie (#18) and Joan (#16) had the smallest vocabulary and smallest average of 32 words per book. Second, subjects varied in syntactic classes in that #14 listed more nouns than verbs, while #18 listed the reverse with more verbs than nouns.

Third, subjects varied in phonological aspects related to pronunciation on their lists and test scores. During the study, only two subjects (#16 and #18) included L2 pronunciation on their lists, but in differing proportions: #16 – 69.85%, #18 – 50.22%, and #14 – 0.0%. Subjects also varied in test scores for SIRI pronunciation between pretest and posttest. One subject (#18) remained at level 2.0, #14 decreased one level from 1.0 to primer (P), and #16 increased three levels from 3.0 to 6.0. Their proportion of one-syllable words also varied: #14 had 53.18% one-syllable words, #18 had 45.37%, and #16 had 35.42%.

Fourth, on the spelling tests, there were some differences between subjects in relation to language because of cognates for Sarah #14. For example, Chinese subjects #18 and #16 showed decreases on the posttests in 0.2 and 0.9 levels respectively, while #14 increased 3.4 levels from 2.8 to 6.2.

Fifth, subjects varied in morphemic awareness in type of morpheme, manner and development. However, this awareness was at an elementary level. For example, #18 listed three frequencies each for irregular plural nouns and irregular verbs, with no other derivatives. Joan (#16) listed one regular noun form, and focused on verb forms, such as regular, irregular and phrasal verbs. Sarah (#14) developed a beginning awareness of morphemes during the latter half of the study as irregular verb forms first emerged on her eighth and subsequent lists, and then a few derivative forms were found on her last lists.

Subjects also differed in the manner of listing the forms. Two subjects mostly listed irregular verbs with present tense form first, followed by the past irregular, but #18 listed hers the reverse with the past irregular first, then the present form. Most forms were also listed as whole words, although #16 listed a few as individual morphemes (i.e., –ed; -ing).

Sixth, beginners varied in their use of the semantic level of language in two aspects: synonyms-antonyms and collocations. Both aspects were unique to Joan's (#16) list, was limited to one collocation on Katie's (#18), and one synonym and antonym each on Sarah's (#14) list near the end of the study. There were also differences in increases from pretest to posttest on synonyms-antonyms tests. Joan (#16) increased 2.4 levels, in contrast to one-level increases for #18 and #14.

Reading Variation

Beginners showed variation in reading in several aspects: dependence on the visual as a supplement to comprehension, genre choices, RL range, strategies, and ability to read critically in a second language. In comprehension, two subjects were more dependent on the visual (picture book) as a supplement to comprehension, and one subject (#18) was less dependent on the visual, and indicated that the visual had distracted her and slowed her down. One subject (#14) began the study at 0-level English and was dependent on the visual for most of the study, but was able to read two nonvisual young adult books by the end of the study. In addition, Sarah was also able to begin choosing books based on her interest and background, rather than on ease of reading in the middle of the study.

Genre choices in content differed according to interests. Joan read evenly with three each in fiction and biography, and two historical and no information; Katie (#18) preferred biographies with six, and only two fiction; and Sarah (#14) read four each in fiction and historical fiction, three in information and one biography.

Third, subjects differed in their reading level ranges. Two subjects (#14 and #16) read beyond their level and ranged from RL 2-10; Katie (#18) read nothing above RL 7 and ranged from 3-7. While Joan and Sarah both read beyond their level, their choices were visual, picture books.

Fourth, beginners varied in their ability to read critically in a second language. Only Joan (#16) commented on how a book was written in her comparison between two biographies on Bill Clinton. She indicated that the more difficult book was more interesting because there were more details. Katie's comments were related to ease of reading and the amount of vocabulary. When beginners read books and discussed them, most summarized them rather than commenting on how they were written.

Finally, beginners varied in using the reading strategy of repeated readings. Joan (#16) used this strategy the most of beginners, as she reread *Riptide* four times, two books three times, three books twice, and two once. Katie (#18) read only two books twice, and six books once. Sarah (#14) read each book once, and a second time just before class.

Subjects Above the Threshold

Subjects above the threshold were similar in some ways but varied individually. In vocabulary, similarities between subjects were found in similar vocabulary frequencies and consonant clusters, in the absence of certain syntactic classes besides nouns, verbs

and adjectives, and in the absence of repeated vocabulary listings. In reading, subjects were similar in ability to read across reading levels, read for meaning, read with less dependence on the visual for comprehension, and to choose books based on interest and background. However, subjects varied in both vocabulary and reading aspects, and were unique in different areas.

Vocabulary Variation

First, on the phonological level, subjects varied in the amount of pronunciation included on their lists. Only Rosa (#3) wrote phonetic transcriptions for 64 words or 32.0% of her new words, while Margaret (#17) and Judy (#4) omitted pronunciation. Subjects also varied on the posttests in pronunciation on the SIRI test: Rosa and Margaret each increased one level, Judy decreased three levels.

Second, there were differences between subjects in their morphemic awareness. Rosa included only a few morphemes listed individually, i.e., /-ial/. Margaret lacked morphemic development on her vocabulary lists, but showed advanced knowledge on supplementary exercises for the TOEFL exam. Judy's morphemic awareness was evident in her organization of vocabulary according to derivatives as a learning strategy to expand her vocabulary.

Third, subjects varied semantically in their increases on the synonyms-antonyms posttests. Both Rosa (#3) and Margaret (#17) increased two levels, while Judy (#4) increased 4.3 levels. Judy was the only subject who organized and enumerated multiple definitions in L2.

Fourth, subjects varied in the language of their definitions. Only Rosa (#3) wrote the majority of her definitions in her native Chinese for 92.0%, used L1 and L2 for 3.0%,

and wrote only ten definitions in English. Both Margaret and Judy wrote definitions predominantly in English for 93.67% and 79.0% respectively. Judy wrote 18.9% of her definitions in a combination of English and Thai.

Fifth, subjects varied in their use of the dictionary. Rosa and Margaret used the dictionary for definitions and comprehension. Rosa used it bilingually, Margaret used it for L2 phrasal definitions on her vocabulary lists, but as a learning tool on her TOEFL exercises with some L1 definitions, and many L2 derivatives. Judy also used the dictionary as a learning tool to organize both L2 derivatives and definitions.

Finally, subjects differed in their ability to be creative with the second language. Margaret (#17) was unique in this ability which only emerged on the supplementary TOEFL exercises. Rosa showed little ability in this area in this study, and Judy was only creative with organizing vocabulary and definitions.

Reading Variation

First, subjects read similar amounts of picture and young adult books as a group, but were not dependent on the visual for comprehension and chose books based on interest and background. Individually, subjects varied in the specific frequencies of young adult and picture books, as well as in their purposes for choosing the visual. For example, Rosa read ten picture books and seven young adult books. Rosa seemed to be a visual learner based on comments from her final survey about her reading choices. Margaret (#17) read four books each in both genres. Although Margaret's purpose for her choices was not clear, two picture books were related in content to her Asian background. Judy's purpose for her three picture books was related to her interest in history and biography.

Second, subjects differed in reading range and reading levels, although all subjects above the threshold read across reading levels and below their levels. The central frequency for subjects above the threshold was RL 7 – 8 with ten books. Rosa's range was RL 2 – 10, Margaret's was 2 – 7, and Judy's was RL 3 – 12. Subjects read books in both the lower and upper levels. Only Rosa and Judy read books in reading levels eight to ten, and Judy was the only subject to read at RL 12. Books read at the lower levels for these subjects were mostly the young adult genre. In other words, subjects above the threshold chose books based on interest and background, rather than reading levels.

Third, subjects varied in their content reading, and based their choices on interest and backgrounds. The most popular choices were in historical fiction and biographies for totals of 12 and 16 respectively. Individually, Rosa read 12 in these two content genres, Margaret read five, and Judy read eleven. Informational books were similar in distribution between subjects, but fiction was the least read subgenre as #3 read four, #17 read one, and #4 read none.

Fourth, subjects varied in their use of repeated readings during this study. Margaret (#17) and Judy (#4) read their choices only once, while Rosa (#3) read two books three times, seven books twice, and eight books only once.

Fifth, subjects differed in their ability to read without making vocabulary lists. Rosa and Judy read a total of twelve books without writing lists, while Margaret turned in lists for each book.

Finally, subjects varied in their ability to read critically in a second language. Rosa was aware of the use of background to read and write a text, and also mentioned

that the value of reading books in this study was for popular vocabulary. Margaret (#17) was interested in why a character in *Baseball Saved Us* was not given a name. She also differentiated between the accuracy of an idea for a story as in *The Year of the Panda*, and how it was written. Judy was also able to separate the content of a text from the way it was written. She was able to respond to content positively, but also critically about interest and language.

Threshold Profile

The results of the vocabulary and reading analyses presented in this chapter painted a picture of subjects in relation to the threshold. This profile attempts to paint a picture of the threshold. However, the characteristics which have emerged seem to be a mixture of varying abilities between individuals and levels in relation to the threshold. In other words, no one characteristic seemed to fit all subjects because of the following. First, characteristics and abilities were present in differing amounts and proportions for each subject and between levels in relation to the threshold. Second, subjects who seemed to characterize the threshold in one respect, didn't in another. Consequently, this profile has summarized those vocabulary and reading characteristics or abilities which seem most important to the threshold concept and classified them according to change in three ways. The first group of characteristics are those which appeared to decrease around the threshold (hypothesized around level 4 for this study); second, are those abilities which appeared to increase; and third are characteristics which appeared to change in purpose.

Decreasing Characteristics

The characteristics which appeared to decrease in relation to the threshold included six aspects. First, the total amount of unknown words decreased to a manageable amount with a small average per books (i.e., 19-20). Second, the syntactic focus on the vocabulary lists decreased from all syntactic classes below the threshold to only nouns, verbs, and adjectives at or above the threshold. Third, on the phonological level, there were decreases in use of L2 pronunciation, of initial consonant clusters with /s/, and less problems with orthographic aspects in spelling. Fourth, repetition of vocabulary on the lists and rereading the books decreased. Fifth, definitions in the subjects' native languages decreased. Sixth, dependence on the dictionary and the visual genre for comprehension decreased.

Increasing Characteristics

There were six characteristics which appeared to increase in relation to the threshold. First, the number of test scores increased above level four so that three subjects changed categories. For example, #3 and #17 moved to category one, and #16 moved to category two. Second, the use of English increased in writing definitions. Third, morphemic awareness increased and developed toward an ability to be creative with morphemic and orthographic knowledge. Fourth, the focus on meaning increased in semantic vocabulary knowledge (i.e., synonyms, antonyms, and collocations) and in the ability to read for meaning. Fifth, the ability to read across reading levels increased, as did their ability to choose books based on their background and interests. Sixth, the ability to read critically in a second language increased as they were able to read for

meaning, respond to content, but were also objective and critical readers about how it was written.

Changing Purposes

There were several characteristics which appeared to change in purpose around the threshold. Three characteristics shifted from a function related to reading comprehension toward a learning tool or strategy. These included: first, the morphemic knowledge developed toward the creative use of the language; second, repetition of vocabulary, definitions, and the dictionary became learning tools to expand the meanings of vocabulary, to practice subjects' L2 knowledge of words, and to organize that knowledge. Finally, the visual genre (i.e., picture book) was chosen based on interest, background, or relationship to a subject's visual learning style (#3) rather than for dependence on understanding the story or content.

CHAPTER V

DISCUSSION

Background of Study

The purpose of this study was to examine the nature of second language vocabulary development of ESL adults for reading a second language, to examine the characteristics of the L2 threshold of reading, to compare vocabulary and book choices between individuals and vocabulary levels, and to develop a rationale for using children's literature with ESL adults.

This purpose was operationalized on the principle of multiple perspectives or a holistic approach to assessment and analysis which are consistent with qualitative research and portfolio assessment. Consequently, vocabulary was assessed from multiple perspectives with a battery of four tests, data were collected from vocabulary lists, and reading choices were analyzed from multiple perspectives.

The specific methodology reflects this perspective. Six ESL adults were selected from a pool of twenty-four volunteers for this semester-long study. All volunteers were surveyed and pretested with a battery of four tests to assess different aspects of vocabulary: pronunciation, synonyms-antonyms, silent reading, and spelling. The selected subjects chose their own reading material from the researcher's collection of children's literature, and kept vocabulary lists of new words with definitions in the language of their choice. Each subject met weekly with the researcher for eight individual sessions, and met collectively for group discussions about their reading.

Subjects were posttested and surveyed at the end of the study. The data analyzed included surveys, test scores, vocabulary lists, definitions, and reading choices. The results of these anlayses were reported quantitatively and qualitatively according to the hypotheses in this study.

In chapter five, quantitative results are first summarized as conclusions of the hypotheses in relation to the threshold of reading hypothesized at level four. Second, the most important developmental findings are discussed. Third, recommendations are suggested for the application of the results and for further research. Finally, criteria are summarized for selection of children's literature with ESL adults.

Conclusions of Hypotheses

Hypothesis One

The focus of this hypothesis was on the differences in vocabulary between levels in relation to the L2 threshold of reading hypothesized at level four. The conclusion of this hypothesis was that there were quantitative and developmental differences in vocabulary between levels. The major quantitative differences between levels were found in the total frequencies of new words, average vocabulary per book, presence or absence of certain syntactic classes, and the language of their definitions in either L1 or L2. In other words, subjects below the threshold had more of everything: large amount of new words (1650), with decreasing individual frequencies, high average of new words per book (i.e., 32-75), most syntactic classes, and most definitions were written in subjects' first languages. Subjects above had less of everything: fewer new words with total frequencies (i.e., 510), smaller average of new vocabulary per book (i.e., 19-20),

syntactic classes limited to nouns, verbs and adjectives, and wrote most definitions in the second language.

This contrast between levels indicated that ESL beginners need more of everything. This result of contrasting frequencies between levels in unknown vocabulary may also suggest that vocabulary is a factor of difficulty for learning and reading a second language. First, in L2 literature, vocabulary is thought to be one of the most difficult aspects of learning a second language (Gass & Schacter, 1989; Knight, 1994). Jones (1995) indicated that ESL students need to learn massive amounts of vocabulary. The high frequency of 1650 unknown words for ESL adult beginners in this study, compared to the small frequency of 510 new words for subjects above the threshold, suggests support for Jones' comment.

Second, unknown vocabulary was also considered to be a factor of difficulty for L1 readers at different ability levels, according to Carver (1994). Carver researched the percentage of unknown words from graded texts for L1 readers at different ability levels (i.e., elementary and graduate readers). My study also researched unknown vocabulary, but measured frequency and average frequency of new words from self-selected texts for L2 groups and individual adult readers at different ability levels (i.e., below and above the threshold at level 4). The point for this discussion is that Carver considered unknown vocabulary to be a difficulty factor for L1 readers at different ability levels. The results of my study extend Carver's research and suggest that unknown vocabulary is also a factor of difficulty for L2 readers at specific ability levels.

Hypothesis Two

The focus of this hypothesis was on the differences between levels in book choices. The conclusion of this hypothesis was that there were differences between levels in the most frequent reading levels, reading level ranges, and in the frequency of visual and less visual genres. First, the most frequent reading level for beginners was RL 4, and for subjects above it was RL 7-8. Second, there was a difference between the visual and less visual genres: subjects below the threshold read half the frequency of young adult books than subjects above, but both levels read similar amounts of picture books. Third, there was a difference between levels in their reading ranges. Subjects below the threshold read only a few books above their level, but when they did, the books were of the visual genre. Subjects above the threshold read below their level but when they did, the books were of the young adult genre.

However, there was no difference between levels in the choice of content genres, in vocabulary from commonly read books, or influence on book choices from other readers. First, subjects from both levels had similar preferences for biography and historical fiction, and showed less preference for fiction and informational books. Second, subjects seldom chose the same book to read as only ten books were read by two subjects. Third, there was no influence on book choices from other students. In other words, subjects chose their books based on their own interests, rather than on recommendations or comments by other subjects.

Hypothesis Three

The focus of this hypothesis was on the difference between levels in the amount of dictionary dependence. The conclusion of this hypothesis was that there were

differences between levels in dictionary dependence found in the amount of vocabulary and definitions, in the language of the definitions, and in the ability to read without making vocabulary lists. Subjects below the threshold had more vocabulary words on their lists, needed to define most vocabulary for comprehension of their reading, used the dictionary for first language definitions, and with the exception of one beginner with one book, needed to make lists and define new words for every book. Subjects above the threshold had fewer vocabulary and definitions, did not need to define every word from their reading, used the dictionary more for second language definitions, and were able to read books without making vocabulary lists.

Hypothesis Four

The focus of this hypothesis was on the nature of the threshold for reading a second language hypothesized at level four. The chracteristics were hypothesized to be: decreased dependence on grammar and the dictionary, a change in book choices, and an increased interest in reading.

The differences found and reported between levels for syntax and dictionary use suggest that these characteristics showed change above the L2 threshold of reading. These results reflected the qualitative nature of this hypothesis for these specific characteristics thought to differ in relation to the L2 threshold. The main conclusion of this hypothesis was that in contrast to subjects below the threshold, characteristics differed for subjects above the threshold. In other words, some characteristics showed an increase, some showed a decrease, and some changed in purpose. First, beginners appeared to have a greater dependence on grammar, as indicated by the presence of most syntactic classes on their vocabulary lists. In contrast, subjects above the threshold

appeared to have less dependence on grammar as their vocabulary lists included only certain syntactic classes (i.e., nouns, verbs, adjectives, and a few phrases).

Second, beginners also appeared to have greater dependence on the dictionary, while subjects above the threshold appeared to have less dependence on the dictionary. This was indicated by fewer unknown words with fewer definitions, and fewer L1 definitions, but more L2 definitions. In addition, two subjects (#17 & #4) above the threshold showed a change in purpose for using their dictionaries as learning tools.

Third, while changes in book choices were not as evident between levels, except for increased young adult choices, the ability to read for meaning and to read critically in a second language increased at and above the threshold. Finally, because all subjects indicated an increased interest in reading, this factor could not be attributed to the threshold.

Developmental Patterns

This study was designed to research differences in vocabulary development for ESL adults between levels in relation to a threshold of reading hypothesized at level four. While there were differences, there were four aspects which were unexpected and will be discussed in this section as the most important results of this study. They are as follows: (1) importance of word consciousness; (2) interesting developmental patterns; (3) individuality of the learner; (4) importance of the visual; and (5) patterns related to the posttests.

Word Consciousness

Word consciousness appeared to describe an important distinction between levels for the second language subjects in this study. Furthermore, word consciousness seemed

to involve two developmental factors between levels. First, there was a difference between levels in the degree of conscious awareness of different L2 linguistic aspects of vocabulary and how that knowledge was used. In other words, subjects below the threshold had basic awareness of L2 linguistic knowledge of vocabulary,while subjects above the threshold had more advanced linguistic knowledge and used that knowledge differently. Second, there was a difference between levels in the degree of dependence or independence on certain aspects for reading comprehension that suggested a control factor in learning. Consequently, dependent factors were necessary for reading comprehension, tended to be more characteristic of beginners, and were less consciously controlled. In contrast, independent factors were not as related to reading comprehension, more characteristic of subjects above the threshold, and were more conscious in that these factors were under the control of subjects. Examples of the degree of L2 linguistic knowledge and dependent or independent factors for reading are briefly described, followed by how this concept is supported in L1 and L2 literature.

First, in terms of quantity of new vocabulary, subjects below were more dependent on vocabulary, the dictionary, L1 definitions, syntax and the visual genre for comprehension in reading. However, this dependence was not necessarily within their conscious control. In contrast, subjects above the threshold were more independently selective of L2 vocabulary with smaller frequencies of new words and averages per book, were less dependent on the dictionary and L1 definitions, had fewer syntactic classes, fewer vocabulary lists, and were more able to read the less visual young adult genre. In other words, subjects above the threshold were able to read for comprehension without

defining every word or even making lists and appeared to be more in control of their L2 development.

Second, on the phonological level, there were three subjects who included L2 pronunciations, indicated by phonetic transcriptions on their vocabulary lists. Two subjects were below the threshold, one was above, and all three spoke Chinese. While it was not clear whether their use of L2 pronunciation was related to reading comprehension, it appeared to be a conscious use of an L2 learning strategy for these students. When the frequencies for the L2 phonetic transcriptions were analyzed in terms of percentage of each subject's total vocabulary, a pattern of decreasing percentages emerged between subjects and levels. For example, below the threshold, Joan (#16) listed 69.85% of her vocabulary with L2 transcriptions, and Katie (#18) listed 50.22% of her words with L2 pronunciation. Above the threshold, Rosa (#3) listed only 32.0% of her vocabulary with L2 transcriptions. These percentages with differences between subjects and levels could suggest that as L2 ability develops, the need for this pronunciation strategy decreases. However, this implication must be tempered by two facts. First, not all subjects used L2 pronunciation, but those who did spoke Chinese, and second, the use of pronunciation was dependent on knowing the phonetic transcriptions. The fact that the fourth Chinese subject (#17) did not use L2 pronunciations and was above the threshold, could support the implication that the need for L2 pronuncation decreases with an increase in L2 ability, but would need additional research to confirm.

Third, there were differences between levels in two distinctive types of orthographic awareness, which were observed for two subjects. Below the threshold, Sarah (#14) illustrated an interlingual (i.e., betwen languages) type of orthographic

awareness. Sarah first became aware of spelling differences in cognates between Portuguese and English, due to errors on her spelling pretest. Sarah's awareness of L1 and L2 spelling differences continued throughout the study. This suggests that her control of L2 orthography was dependent and limited to interlingual spelling differences. (Note that Sarah was the only subject whose L1 was Latin-based with cognates in L2). Above the threshold, Margaret (#17) illustrated an intralingual (i.e., within language) type of orthographic awareness. This type of awareness was evident in Margaret's ability to rearrange letters creatively on her TOEFL exercises to form different words. Her ability suggests that above the threshold, this subject had more advanced L2 orthographic and linguistic awareness, as well as conscious and independent control of her L2 learning. The point for this discussion is that there were two types of orthographic awareness, which were observed at different levels for these two subjects. Whether these types of orthographic awareness are related to L2 ability levels would need further research to substantiate.

Fourth, morphemic awareness appeared to be a distinguishing feature between levels. Subjects below the threshold showed only elementary awareness and control, while subjects above indicated more advanced awareness, with more control. This advanced morphemic awareness ranged from Rosa's developing awareness to Margaret's creative ability in analyzing morphemes, and Judy's organizational ability. Therefore, one important conclusion of this study was that morphemic awareness was a central and developing characteristic, which is important to second language vocabulary development.

Fifth, semantic awareness differed in the nature and use between levels. Subjects below the threshold were more dependent on their first language, on the dictionary for definitions, and on the visual genre for comprehension of their reading. One subject below the threshold (#16) specifically focused on meaning, which was evident in synonyms-antonyms, collocations, phrasal verbs, and repreated vocabulary and reading. Above the threshold, subjects showed more independence and control, but differed in the type of their definitions. Rosa (#3) primarily wrote L1 phrasal definitions. Judy (#4) organized and enumerated most of her L2 definitions. Margaret (#17) wrote mainly L2 definitions on her vocabulary lists, but defined words differently on end-of-the-lesson tests given on the TOEFL exercises. Her use of these tests illustrated her strategy of self-testing her L2 knowledge through a pattern of repetition. Rather than choose the correct response from the multiple choices for each test word, she wrote definitions for many of the choices. Because the same vocabulary words were often used many times as choices for different test words, Margaret repeatedly defined and redefined the same words on these tests.

Discussion on Word Consciousness

The developmental factors of word consciousness and the independent-dependent control factors in relation to reading find support in both L1 and L2 literature. In first language literature, there are different views of word consciousness in relation to reading. Ehri (1979) mentioned four possible relationships between word consciousness and reading. The first is Bereiter & Englemann's 1966 view (cited in Ehri, 1979, p. 81) that word consciousness is part of basic linguistic competence. The second is that word consciousness facilitates or causes reading ability (Ryan, 1980). The third is that word

awareness is a consequence of reading, much like a Matthew effect (Walberg & Tsai, 1983) that the more one reads, the better one reads. Finally, Ehri (1979) suggested that word consciousness could have an interactive relationship to reading as both cause and consequence. Furthermore, the factor of conscious, deliberate control is mentioned by Ehri within the larger construct of metalinguistic control. The important point for this discussion is that word awareness has a relationship to reading, and that conscious control is part of metalinguistic ability.

In second language literature, metalinguistic ability and metacognitive control are mentioned as important factors for learning and reading a second language (Bialystok & Ryan, 1985; Block, 1992). Bialystok and Ryan also indicate that these factors distinguish between skilled and less skilled readers. Furthermore, Ellis (1985) described Bialystok's (1982) conceptual framework for types of L2 acquired knowledge. It is my opinion that word consciousness is implied as part of that L2 acquired knowledge. In Bialystok's framework, this knowledge consists of analyzed and control factors that exist on two continua rather than as dichotomies. According to Ellis, the analyzed factor requires the abilities to transform and compare knowledge and use in problem solving. The control factor refers to automaticity or ease of access for L2 knowledge, which seems to differ somewhat from metalinguistic ability that requires deliberate active control. In this study, the control factor relates to the dependent-independent aspect in relationship to reading.

Consequently, the conclusion of this research suggests three points in relation to word consciousness. First, that word consciousness is crucial to the development of second language reading. Second, that the relationship of word consciousness to reading

for these ESL adults may possibly reflect Ehri's interactive view of this relationship: that word consciousness is both a cause and a consequence of L2 reading development in relation to the threshold of reading. For example, word consciousness appeared to be important at beginning levels as a dependent factor for comprehension in reading, but that reading also enhanced word consciousness at that level. Once subjects were above the threshold, the function of word consciousness shifted to more conscious and independent control. This was evident in Margaret's creative ability with graphemes and morphemes, and Judy's organizational skill with derivatives and multiple definitions. Third, that different linguistic aspects of word consciousness were important at different levels and for different students. In other words, pronunciation, syntax, interlingual orthographic differences, elementary morphemic and semantic awareness were evident below the threshold, but more advanced morphemic, intralingual orthographic and semantic ability were characteristic of subjects above the threshold, while L2 pronunciation and syntax were not as important.

Interesting Developmental Patterns

There were several interesting developmental patterns which emerged during the analysis of the data. First, in syntax, prepositions were uncommon on beginners' lists, and were absent on lists for those above the threshold. This was surprising considering that according to Celce-Murcia and Larsen-Freeman (1983), teachers reported that prepositions were considered the second most difficult aspect of English for second language learners. Prepositions were also mentioned as difficult for Chinese speakers (Chang, 1987) and Portuguese speakers (Shepherd, 1987), two languages represented in this study. However, prepositions were considered less difficult for Thai speakers

(Smyth, 1987). The important point for this study is that prepositions were infrequent on beginner's lists and absent on lists of subjects above the threshold. Perhaps prepositions are still difficult to learn, but in relation to reading, they may be less essential to the overall meaning and thus occur infrequently on beginners' lists.

Second, in morphemic development, irregular past tense verb forms appeared on one beginner's list in the middle of the study and were present to the end of the study. Considering that this subject (#14), began the study at 0-level English, the early appearance of irregular past verb forms could possibly suggest that these forms develop much earlier than had been previously indicated by the moprheme studies (Dulay & Burt, 1974), at least in terms of awareness. This implication would need further research for support.

Third, the appearance of repetition in different forms and levels was unexpected and appeared to relate to learning theory, and to the L1 writing and reading learning backgrounds of the Chinese subjects in this study. Repetition was used in this study by beginners who repeated vocabulary on their lists and also reread their books for comprehension. While the repeated vocabulary may not have been at a conscious level, the choice to reread books was conscious. Above the threshold, repetition did not appear on vocabulary lists, but was used by one subject as a self-testing strategy on the TOEFL exercises.

In relation to SL learning theory, the use of repetition had been associated with behavioristic views of second language learning as habit formation, which became the basis for the audiolingual method of teaching second languages from the 1940's to the 1960's (Celce-Murcia, 1991). Since the 1960's different methodologies have emerged to

avoid a behavioral approach. The use of repetition in this study was student-generated, and was not teacher-initiated as an L2 reading or learning strategy. The fact that repetition was student-initiated, suggests that some students thought it was a useful L2 strategy.

The value of repetition specifically for vocabulary learning has been mentioned in the literature by Nation (1990), who indicated the view of psychologists that the type of attention was more important than repetition for vocabulary learning (Craik & Lockhart, 1972; Craik & Tulving, 1975). The types of attention referred to by Craik & Lockhart appear to be related to their depth-of-processing theory as types of rehearsal. Matlin (1983) described these types of rehearsal as either maintenance or elaborate rehearsal. Maintenance was defined as more superficial, while elaborate rehearsal requires a deeper analysis. In this study, the maintenance type of rehearsal could explain the unconscious repetition of vocabulary found on beginners' lists, while above the threshold elaborate rehearsal could refer to the conscious repetition and analysis by Margaret's (#17) self-testing and orthographic creativity. It is also possible that difference in the types of rehearsal between levels could also be related to dependent and independent aspects of word consciousness.

The use of repetition may also be related specifically to first language learning strategies as illustrated by the Chinese subjects in this study, although repetition was also evident on lists of the non-Chinese beginner. When I questioned Chinese subjects on their learning to write and read Chinese, they indicated that it was a lengthy and difficult process which took years of repetition to practice the written characters before they were

able to read. There is support in reading literature, that repetition is part of Chinese language instruction in the early grades. According to Tao and Zuo (1997), repetition is needed to practice writing, pronouncing, and reading Chinese characters and individual elements of characters (i.e., radicals). By the end of the third grade, Chinese children are expected to have mastered about 3,000 characters. Consequently, reading was not a natural biologically determined process (Liberman & Liberman, 1992) as is claimed in the whole language approach to reading (i.e., Goodman, 1976). The important conclusion on the use of repetition is that it was useful for some students as a strategy, but when it was chosen by the individual and not part of the teaching methodology.

Fourth, the ability to think critically in a second language was an interesting aspect of L2 development for these ESL adult readers. However, note that this discussion focuses on the development of L2 critical thinking ability for these ESL adult readers. It is not intended to imply that these subjects lacked critical thinking abilities as L1 adult speakers and readers. In fact, these ESL adults were a highly educated group, as most had earned either university or graduate degrees in their home countries. Only one subject had recently begun her undergraduate studies in the United States. Consequently, it would be assumed that these ESL adult readers already had critical thinking abilities as L1 readers. The point for this discussion is that L2 critical thinking and reading ability developed in different ways and levels. For example, below the threshold, one subject (#16) commented on differences in writing between two books on the same subject, that the more difficult one was better because it had more details. Above the threshold, one subject (#3) became aware of background for reading and writing a text, while another subject (#17) could separate the validity of a story from how it was written.

In second language literature, Cummins described Ada's framework for critical thinking or literacy (cited in Cummins, 1994, pp. 50-52). This framework was based on Vygotsky's work on zones of proximal development for ESL children. According to Cummins, literacy is divided into different phases in Ada's framework: descriptive, involvement, critical analysis, and creative action. While this framework focused on action as a result of knowledge, power, and identity, the first three phases relate well to differences found in this study between levels in relation to the threshold, and to students' responses to L2 reading. For example, the first descriptive phase illustrates a common response by subjects that when asked to share their reading with the group, most read aloud from a written summary. According to Ada's framework, this type of reading is termed passive and receptive. It would also fit Rosenblatt's (1978) efferent reading response or reading for information. Ada's second phase, personal involvement, fits Rosenblatt's aesthetic response to reading, in that responses relate to the individual. In this study, one subject (#3) above the threshold commented that *Sadako and the Thousand Paper Cranes* was a moving story which had inspired her. Ada's third phase was critical analysis, and was more abstract in that this phase related to broader social issues. One subject (#17) above the threshold questioned why the boy in *Baseball Saved Us* had no name, which related to the social dimensions portrayed by the context of the story. However, the critical analysis of the books found in this study were not focused on the social implications, nor were the responses teacher-induced. The critical analyses found in this study were student-generated responses on how the books were written, and the importance of background for reading and writing a story.

The fifth interesting developmental pattern was found in the change between levels in the purpose of the dictionary, different linguistic levels of L2 knowledge, repetition, and the visual genre. While this study was designed to analyze differences between levels, it was interesting to find that what functioned below the threshold as an aid to comprehension, shifted above the threshold to a tool of learning, or became part of a learning style (i.e., #3's use of the visual genre).

Individuality

While there were many similarities between levels in relation to the threshold, the individuality of each learner was apparent in their responses to different aspects of the study. In second language research, individuality of the learner is found within the concept of learner variability in second language acquisition. Ellis states that "learners vary in the way they orient themselves to the task of learning a second language" (1985, p. 72). He also quotes Stevick's analysis of individual responses, that "some students respond well to teaching situations in which the student is given space for their own path, while others function better in a more structured situation" (Ellis, 1985, p. 103). This study was an individualized design with only a facilitative role for the teacher. Individual differences were found between subjects in many areas. The most important aspects will be discussed briefly in this section.

First, each subject had a different focus, purpose and approach to the study and their reading. Of beginners, two focused on the visual genre as an aid to comprehension: one (#16) read above her level, but read picture books. The other (#14) focused on the visual genre for most of the study, but shifted to the young adult near the end of the study. The third beginner (#18) was distracted by the visual genre and focused her

reading on the young adult. Above the threshold, one subject (#3) chose the visual genre because of her interest in art as a visual learner. The other two subjects were both studying for the TOEFL: one (#4) used the reading and vocabulary lists, the other (#17) focused on the TOEFL exercises and minimally used the vocabulary lists from reading .

The point for this discussion is that subjects responded to tasks in this study very differently, which has two implications. One is that Margaret's creative use of the TOEFL exercises contrasted to her minimal use of the vocabulary lists and was an important example of the value of portfolio assessment and qualitative research. For if her data had only been taken from her vocabulary lists, it would not have shown her creative language ability, which only emerged on the TOEFL exercises, and it would have painted a limited picture of her L2 knowledge. Another implication also relates to the use of the TOEFL exercises. It was interesting that in making these exercises available to the other subjects, that each one used them differently. Because Margaret's use of the TOEFL exercises was unusual, it was included as part of the analyzed data. However, other responses to these exercises were interesting to observe and illustrate a point. For example, some students defined the vocabulary in the lessons and completed the tests at the end of each lesson; one only completed the tests but did not define any words; some guessed on the tests but did not define any words; while others guessed on the tests and ignored the lessons entirely. The point is that whatever tasks were given to these ESL adults, each individual made the task their own, according to their needs, ability, and interest.

The second important aspect of individuality was found in the choice of reading and vocabulary. In reading, subjects chose their books based on their own interests and

backgrounds without influence from others. This was evident in that there was very little effect on book choices from students who shared their reading with the group during discussions. For example, out of 66 books read by subjects during the study, only ten were read by two subjects. This was surprising considering current thinking on cooperative learning and Vygotskian principles that learning is mediated through others (Moll, 1989; Vygotsky, 1978).

It was important for subjects to choose their own books because it related to motivation. Oxford and Shearin (1994) indicated that motivation determines active participation in L2 learning, and how much input is converted to intake. Motivation is also part of the affective filter hypothesis which is one of the five hypotheses in Krashen's Monitor model of second language acquisition (Ellis, 1985; Krashen & Terrell, 1983). The effect of motivation on reading was evident from a student not specifically part of this study, but who indicated that she always liked to read what she chose. In other words, the implication was that she was more likely to read and enjoy what she chose, because the choices were based on her interests, rather than on someone else's decision. Choice in relation to reading is also inherent in a whole language perspective of reading (Atwell, 1987; Hansen, 1987) in that choice promotes interest in reading. Furthermore, all subjects at the end of this study indicated on their final surveys that reading had increased their interest in reading a second language.

The second aspect related to individual choice was seen in subjects' choice of vocabulary on their lists. This was evident in two ways. One was in the small number of common words on lists for the same books. Only ten books were read in common with only 35 new words in total for all commonly read books, and three books

had no words in common. The conclusion is that ESL adults may read the same book, but have very different unknown words. This carries an instructional implication that as teachers pre-teach vocabulary for a text, it would be difficult to predict which words would be new to any group of students. Perhaps it would be preferable for students to read the text first and write their unknown words on lists. Then the teacher could develop any lessons based on the collective vocabulary lists. This way the words are student-generated rather than teacher-oriented, and it would address the students' specific language needs.

The third aspect of individuality was in their reading and vocabulary development. The subjects were placed into categories in relation to the threshold, hypothesized at level four: three below and three above the threshold. At the end of the study each subject below the threshold showed different development. One (#18) remained at the same category 3 (0-4), but had slight increases in the WLPB-R and Gates-MacGinitie. The second beginner (#16) developed to category 2 (2-2), but had decreases in the Gates-MacGinitie and WRAT-R. The third beginner (#14) entered at category 3 (0-4) at 0-level English, and developed within category 3 with one test above level 4 in spelling, and the other tests were below level 4. Above the threshold, two subjects (#3 & #17), began the study at category 2 (2-2) and developed to category 1 with all tests above level 4. The third subject (#4) was already at the highest level for this study at category 1, so her development could not be measured in the terms of the categories in this study. Her increases were greatest in the WLPB-R and Gates-MacGinitie, small increase on WRAT-R, and a decrease on pronunciation.

The important point for this discussion is that each subject in this study began at a different point on their interlanguage continuum (Selinker, 1972), with differing amounts of L2 knowledge and control (Bialystok, 1982; Bialystok & Ryan, 1985; Ellis, 1985) in different aspects of L2 language. The differences in their development could be illustrating a variety of learning patterns: learning plateau (#18), compensatory reader or reading problems (#16), visual learning style (#3), creative ability (#17), organizational ability (#4), and consistent learner (#14) during the study and in the year since this study.

Visual

The importance of the visual genre (i.e., picture books) was seen in several ways in this study. First, there was a difference between levels for reading: the visual genre was an aid to, and dependent for comprehension for beginners, and it was important for content, interest, and ease of reading, which was independent of comprehension for those above the threshold. The importance of the visual for beginners is supported by the Gates-MacGinitie silent reading vocabulary subtest at levels one and two, in which vocabulary is tested in a visual mode.

Second, the visual genre was important for the relationship to a visual learning style for Rosa (#3). Lowenfeld and Brittain (1987) discuss aesthetic growth as a means of thinking, feeling, and perceiving that is expressed in different ways: one is art with its lines, shapes, color and form. Rosa specifically mentioned the beauty of the illustrations, and that the books enabled her to "picture the story in her mind". It is also possible that Rosa's visual learning style could be related to her Chinese background in the Chinese preference for the visual modality (Osborne-Wilson, Sinatra, & Baratta, 1989). However, since there were three other Chinese subjects in this study who did not appear to be

visually oriented, it is more likely that Rosa's visual learning style is not cultural but personal.

A third value for the visual genre is its use as a teaching tool. Hall's (1990), Using Picture Storybooks to Teach Literary Devices is an excellent resource for teaching literary devices. The visual genre is also a tool for teaching culture, history, and critical analysis of reading and writing. See criteria for selection of children's literature for ESL adults in the final section of this chapter.

Fourth, the visual genre was also important because of its unique interaction of visual and verbal languages which involve both hemispheres of the brain. Lowenfeld and Brittain (1987) indicated that the left hemisphere is the language and logical processor, while the right hemisphere is spatially oriented. Because the picture book genre involves the relationship between the visual and verbal languages, this discussion includes my categorization of different possibilities between the two languages found in the picture books chosen by the subjects in this study. Nodelman (1988) refers to the strength of the visual as visual weight. Based on Nodelman's concept of visual weight, I have developed six categories to describe the relationship between the visual and verbal languages in picture books. The following categories suggest varying degrees of visual weight, with examples of books and subjects' responses to them.

1. A complementary or additive relationship was evident when each language enhanced the other, and the story could be understood through both or either. An example of this was *Riptide* which was read by Joan (#16). However, the language was more difficult for her and she needed to reread it four times to fully appreciate the story, but the visual weight also carried the story.

2. A contrastive relationship was evident when information beyond the narrative was conveyed. This was evident in *Baseball Saved Us*, as the visual and the verbal had inferences which were not obvious. This book was read by Margaret (#17) who recognized the verbal clue by questioning why the boy had no name, but she did not comment on the visual clue of the brown tone of the book. Both clues portrayed aspects of the treatment of Japanese Americans in internment camps during the Second World War.

3. A parallel relationship was noted when both the visual and the verbal tell the story, but neither one added to the other. *In Coal Country* was an example of this pattern and was read by Rosa (#3). The value of this story for Rosa was in the use of the author's background to write the story. However, the charcoal medium of the illustrations also conveyed the influence of coal on life, which did strengthen the story.

4. A dependent relationship was noted when each language was needed to understand the narrative. An example of this was *Old Cat* which visually and verbally illustrated a literary device called flashback. Rosa (#3) read this and could not understand the story because she had missed the visual clues for present and past time. Once this was explained to her she realized why she had experienced difficulty in reading it. This also taught her about artistic tools.

5. A subtractive relationship was noted when one language diminished the other. There are two possible forms for this pattern. In one, the visual was strong, but the verbal story was weak; in the other, the visual was weak, but the story was strong. An example of the first pattern was *Hide and Seek Fog* and was read by Katie (#18). Her comments were more related to the visual genre in general that the visual distracted her. Another

example of this pattern was *Flight* read by Rosa (#3), who indicated that she preferred the story of Anne Morrow Lindbergh, because it was more interesting. An example of the second pattern was evident in *Sadako and the Thousand Paper Cranes*. Although this is considered a young adult genre, there are many illustrations and according to Hall (1990) would be considered an illlustrated story book. However, in this study the book was considered a young adult genre and was read by Rosa. She indicated that this story was moving and had inspired her.

6. A negative relationship was where neither the visual nor the verbal was strong. This was evident in several books, as most had either negative or no responses by subjects who read them. *I Hate English*, and *White Snow, Bright Snow* are examples. This category was more useful for beginning ESL adults to introduce them to L2 reading. In this study, the more advanced subjects did not choose these books. The point for this discussion is that when selecting books for a collection to use with ESL adults, this category has the least applicability for subjects at both beginning and advanced levels.

Development Related to Posttests

There were four vocabulary tests used to determine level in relation to the threshold at the beginning and conclusion of this study. This discussion will describe patterns that emerged during the data analysis. One pattern suggested a possible relationship between the specific focus of an individual subject during the study and her posttest results. There were also other patterns which will be discussed within different tests. This section will first include a brief description of each test, and then discuss the patterns related to them.

SIRI: pronunciation

The first test was the SIRI (1991) vocabulary subtest on pronunciation, administered in Form A on the pretest and Form B on the posttest. There were several patterns related to this test. The most important was an inverse relationship on the posttests between subjects who focused on L2 pronunciation during the study and those who lacked this strategy. Second, there was a greater proportion of L2 pronunciation on lists for subjects (#16 & #18) below the threshold, compared to the smaller percentage for #3 above the threshold. Third, one subject's pattern could possibly reflect L2 stabilization. These patterns, however, seem to be interrelated and are difficult to separate. Consequently, the implications from them will be discussed together.

Only three subjects used this strategy: #16 and #18 were below the threshold and #3 was above the threshold. All three were Chinese speakers. The two subjects below the threshold had a greater percentage of L2 pronunciation on their lists at 65.05% compared to 32.0% on #3's lists above the threshold. In relation to the SIRI posttest, of those who used this strategy, #16 and #3 had increases, while #18 remained at the same level. Of subjects who lacked this strategy, #14 and #4 decreased on the posttest, and #17 increased.

There were several implications to these patterns. First, the greater proportionate use of L2 pronunciation by subjects below the threshold compared to the smaller proportion above the threshold suggests that as L2 ability increases, the need for L2 pronunciation as a learning strategy decreases. Second, two subjects, who lacked this strategy and also had decreases on the posttest, represented the extremes in terms of prior experience in English. Sarah (#14) began this study at 0-level English, and Judy (#4)

began with ten year's experience in English at the advanced level. Perhaps, L2 pronunciation for reading was not as crucial to both subjects, but for different reasons. For example, Sarah was a beginner with a strong L1 cognate base that could have facilitated pronunciation, but her oral pronunciation was still weak. Judy at the advanced level was also not as dependent on L2 pronunciation for reading, but still had some need to develop her oral pronuncation. In addition, there is also a possibility that Judy's pretest was inaccurate or too high.

However, there is also a third possibility for the implication that increased L2 ability decreases the need for this strategy. This possibility is related to first languages in that all three who used this strategy spoke Chinese. The ability to use this strategy was dependent on knowing the phonetic transcriptions. The fourth Chinese subject in this study was Margaret (#17), who lacked this strategy and also increased on the posttest. The difference between levels for the other Chinese subjects in their use of this strategy, and Margaret's lack of use above the threshold suggests support for the implication that increased L2 ability decreases the need for L2 pronunciation as a strategy. In order to verify this implication, I contacted Margaret recently (personal conversation; July, 1998). She indicated that during this study, she had in fact known the phonetic transcriptions from her prior English language studies in China. She also indicated that she had used this strategy during her beginning stage in learning English in China, but no longer needed to focus on L2 pronuncation. In other words, Margaret knew the transcriptions, but she no longer needed this as a learning strategy.

Finally, there was one subject (#18) who did focus on L2 pronunciation, but posttested at the same level on the SIRI. Her lack of increase could be reflective of an

interlanguage position of stabilization (Bley-Vroman, 1989; Selinker, 1972) when a learner stabilizes or fossilizes at a certain point on the interlanguage continuum. This implication could possibly be supported when the remainder of her data was taken into consideration. For example, she had no increase in the test category remaining at 0-4 for both pretest and posttest, although she had small increases in WLPB-R and Gates-MacGinitie, but also had a decrease in spelling, besides no change in pronunciation. The increase in the WLPB-R, however, could also be due simply to increased reading. Besides her tests, she also showed minimal involvement on the vocabulary lists with smaller average words per book, which resembled subjects above the threshold, but her morphemic development was elementary. Her major focus during the study was on the L2 pronunciation, and reading did not appear dependent on the visual genre for comprehension. In fact, she indicated that the visual aspect was a distraction. The point of this discussion is that the lack of change on the pronunciation test and the decrease in spelling in addition to other aspects of the study, suggest that she may have stabilized in her L2 development at that time. Stabilization is an interlanguage term to represent a point when a subject's second language development permanently stabilizes or fossilizes (Bley-Vroman, 1989; Selinker, 1972). The implication of stabilization is negative in its assumption that no further growth will occur. Learning plateau, however, carries a more positive connotation, that further growth may be a potential. However, because she is currently involved in classes at the university, this implication may only have been a learning plateau, rather than a stabilized point. Further assessment would be needed in the future in order to determine whether if that particular point during the study indicated stabilization in L2 development, or whether it represented a learning plateau instead. If

she retested currently at similar levels to the posttests, then it could support stabilization, but if continued growth was evident and her category also indicated change, then a learning plateau would be more likely.

WLPB-R: synonyms-antonyms

The second test was the Woodcock Language Proficiency Battery-Revised (1991). This was the only test administered in the same form on the pretest and the posttest. Consequently, there was a test-retest effect as all subjects showed increases, although subjects above had greater increases. However, there was one beginner (#16) who specifically focused on synonyms and antonyms, and other semantic aspects of vocabulary (i.e., collocations, and phrasal verbs). Her focus was interesting not only because of her gain of 2.4 levels on the posttest, but because of her general focus on meaning, which could be attributed to several factors. First, it is possible that the pretest heightened her awareness of this vocabulary dimension, which led her to focus on synonyms-antonyms during the study, and her focus in turn resulted in a greater increase on the posttest than other beginners. Second, considering that she also focused on other semantic aspects besides the synonyms and antonyms, there is a second possibility that indicated she could have been compensating for weakness at a different linguistic level. In this case, Joan would be illustrating an interactive-compensatory model of reading (Stanovich, 1980), when the reader focuses on one level of language, such as meaning, to compensate for weakness in another level, such as form or listening. This possibility has some support in the data as Joan was consciously aware of her weakness in listening and mentioned this on her initial survey. Her spelling posttest also reflected her weakness in listening and form as she had a decrease of almost one level.

Finally, her focus on meaning to compensate for weakness with sound (i.e., listening) and form (i.e., spelling) could suggest reading problems, such as dyslexia which is evident in problems with the code. Futhermore, in spite of her comparative ability in the reading mode, she had a slight decrease of 0.3 levels on the silent reading test. It is possible that her compensatory focus on meaning along with her loss on the silent reading and spelling could suggest reading problems. However, because her advanced educational level in China does not imply reading problems related to her first language, any reading problems for this student would be related to second language. In fact, according to Osborne-Wilson, Sinatra, and Baratta (1989), there are difficulties for Chinese learners of English with the phoneme-grapheme correspondence due to differences in the writing systems between Chinese and English. Therefore, Joan's difficulty could simply be due to interlingual differences. However, a more complete picture of Joan's L2 data would require further assessment. The point for this discussion is that Joan illustrated a pattern of compensatory vocabulary development which could be attributed to a variety of factors, one of them being a reading problem.

Judy (#4) was above the threshold and had an unusual pattern during the study which related to her posttest. During the study, her focus was on organizing derivatives and multiple definitions, and she had the largest increase on the WLBP-R of 4.3 levels. Her enumeration of definitions suggests that her semantic awareness was on synonyms, and her increase on the posttest indicated no problems with antonyms.

Gates MacGinitie: silent reading

The third test used in this study was the Gates-MacGinitie silent reading vocabulary subtest which was administered at different levels according to the needs of

each subject. There were two patterns related to this test: one was a general effect from reading during the study and the posttest, the other was a pattern from reading, the posttest and the TOEFL.

The first pattern was a general or Matthew effect (Walberg & Tsai, 1983) from reading. Matthew effect is an application of a Biblical concept found in Matthew 25:29 to a reading context by Walberg and Tsai. The implications for reading have both positive and negative connotations. Stated positively: the more one reads, the better one reads, which leads to more reading. Stated negatively: the less one reads, the poorer one reads, which leads to less reading. In relation to this study, with the exception of one subject, most increased on this posttest. There were three subjects who read eight books, and three subjects who read more than eight, but the amount of books did not seem to have any particular effect on increases in scores as all increased except one. However, the level of books read did show an effect on this test for one subject. Judy (#4) was the only subject who read the young adult genre at RL 12, and had the greatest increase of three levels on the Gates-MacGinitie. There are two important points for this discussion. One point is that with the exception of one subject, reading enhanced vocabulary development on this test, even for Sarah (#14) who entered this study at 0-level English. The other point is that Judy (#4) read at the highest reading level and had the greatest gain of three levels on the posttest.

The second pattern related to the posttests was a comparison between two subjects' focus during the study, their gains on the posttest, and their TOEFL results. Two subjects above the threshold took the TOEFL during this study. A score of 500 is considered to be a passing score for undergraduate work, and a score of 550 is required

for entrance into graduate school at Oklahoma State University. Both subjects planned to apply to graduate programs. Margaret's (#17) focus during the study was preparation for the TOEFL. This focus was evident in her concentration and creativity on the TOEFL exercises, compared to only minimal use of the vocabulary lists. Margaret increased one level on the posttest, but passed the TOEFL on her first attempt with a score of 550. Judy (#4), on the other hand, focused on organizing derivatives and definitions on her vocabulary lists. Judy's gain of three levels on the posttest was greater than Margaret's, but Judy did not pass the TOEFL on the first attempt. This comparison between subjects suggests that Judy's strategies may have been more effective for gains on the Gates-MacGinitie, while Margaret's strategies were more effective for the TOEFL. However, Judy indicated that grammar was her weak area on the TOEFL, not vocabulary.

WRAT-R: spelling

The fourth test used in this study was the WRAT-R spelling subtest. Level I was administered as a pretest, Level II as the posttest. There were two patterns evident in this test. First, in general, all subjects above the threshold increased on the posttest, and two subjects below the threshold had slight decreases.

Second, there were two subjects who focused on orthographic aspects of vocabulary during the study. One subject (#14) began the study at 0-level English, pretested at 2.8, focused on interlingual differences between Portuguese and English,and had the greatest increase on the posttest of three levels to 6.2. The second subject (#17) was above the threshold, began the study with four years of English, pretested at 6.4, focused on intralingual aspects of L2 orthography and only increased +0.3 to 6.7 on the posttest.

The important point for this discussion is that focus on the orthographic aspect of vocabulary during the study was most beneficial for beginners, and those who did not focus on orthography had slight decreases. This suggests the need for spelling at beginning stages. In second language research, Odlin (1989) indicates that English spelling is just as difficult for native speakers of English as it is for non-native speakers. Chang (1987) specifically mentions that spelling is very difficult for Chinese speakers; and the reason the grapheme-phoneme transfer is difficult for Chinese speakers is due to different concepts of writing between Chinese and English (Osborne-Wilson, Sinatra & Baratta, 1989). Finally, the importance of spelling in relation to reading is found in the fact that spelling-to-sound or grapheme-phoneme rules are used both in reading and spelling (Aaron & Joshi, 1992).

Comments on Tests

This study was designed around a battery approach to assessment, which related well to current assessment ideas on portfolios and also qualitative research. The rationale behind this type of assessment is that language development should be viewed holistically from multiple perspectives. The tests provided data at the beginning and the end of the study on different aspects of vocabulary development: pronunciation, synonyms-antonyms, silent reading, and spelling. Each test was useful in different ways. This section will briefly comment on the individual tests.

SIRI: pronuncation

This test was too lengthy and time consuming to use with a large number of students, as was the case when 24 volunteers were pretested for selection in this study. A preferable use for this pronunciation instrument would either be with a smaller number of

subjects or with individuals in a tutoring situation. Consequently, I would prefer a shorter, standardized instrument that also includes pronunciation of nonwords in order to test for possibile L2 reading problems. The Woodcock Diagnostic Reading Battery (1997) would be a better option for pronunciation because it assesses pronunciation of both irregular and nonwords.

WLPB-R: synonyms-antonyms

This test was individually administered and was also time consuming, but was standardized. It was a useful instrument because it focused students' attention on the particular semantic aspects of synonyms and antonyms. One drawback to this test for this study was a test-retest effect, as it was the only test administered in the same form on the pretest and the posttest. All subjects had increases on the posttest. Another drawback to this test was that verbal recall was more difficult for subjects without any context. I would recommend this test if time is available. If time is not available I would suggest that the words could be typed and given as a silent reading test in a matching or multiple choice format. The concept of testing synonyms and antonyms is useful.

Gates-MacGinitie: silent reading

This test was standardized, easy to administer in groups, and easy to score. It was very useful because of its available forms for different levels. Consequently, when beginners had difficulty with one level, a lower level was used. In addition, different levels were used as pretests and posttests in order to avoid a test-retest effect. Levels one and two were visually formatted, which was important for beginners. The only criticism was that the context for vocabulary was phrasal rather than whole sentences.

WRAT–R: spelling

This test was standardized, easy to score and to administer in groups. Forms I and II were useful as pretests and posttests. This was a good test for listening and spelling ability, especially to assess interlingual problems from cognate languages. In general, Level II was more difficult for most of the subjects.

RECOMMENDATIONS

For Second Language Teachers

The following is a brief summary of recommendations for second language teachers of adults based on the results of this research. Some suggestions may be applicable to children, but since the focus of this study was with ESL adults, the suggestions are based on experience with this population.

1. Choice of books and tasks: the matter of choice is important for ESL adults for motivation and interest, as has been previously discussed. The choice of tasks was also important for understanding a subject's L2 knowledge. If one task seems to be unproductive, another task may bring out abilities which would not be evident otherwise, because each student will respond differently to any task. This concept is supported in holistic approaches to portfolio assessment.

2. Use vocabulary lists of new words from reading: as previously mentioned, my suggestion would be to begin with the students by having them choose their reading, write lists of new words, and then build vocabulary lessons from the collective lists. In addition, vocabulary lists may differentiate between levels: large amounts of new words for beginners (i.e., 30-75); and small amounts for those above the threshold (i.e.,19-20).

3. Use different aspects of word consciousness at different levels: pronunciation, orthography (include interlingual differences) and elementary morphemes for beginners; stress word derivations and creative use of spelling and morphemes for advanced subjects.

4. Use visual genre: this genre is useful for beginners struggling with the language. However, some books have a higher reading level than would be expected. This is due to the fact that most picture books are meant to be read aloud to children (Thistlewaite, 1994) rather than by children. This genre is also useful for more advanced ESL readers for content background in culture and history.

5. Develop critical thinking in L2: suggest that students read different books on the same topic, as each author presents a different perspective, and have students compare how each was written. For example, one of the students in this study chose two biographies on the same individual, which enabled her to draw conclusions about how each was written.

6. Use multiple perspectives of assessing L2 reading and vocabulary development, and be alert for reading problems. The tests used in this study were important in understanding different dimensions of word consciousness in relationship to the individual's focus during the study. However, as mentioned previously, I would recommend a different pronunciation test.

For Future Research

Because this study was a small quantitative and qualitative study, the results have limitations because of its small size in terms of generalization to the larger ESL population. Consequently, most aspects of this study would need further research with

larger populations to verify and support the results. However, there are some specific recommendations for areas of research which seem to be most important. My first concern is the need for assessment of L2 reading problems which are not related to first language reading difficulties. It is my opinion that there are ESL adults here with reading problems which may be unnoticed or possibly evaluated as a different problem. This leads me to the second concern, that perhaps the label of fossilization as a process within interlanguage (Selinker, 1972) could instead be a reading problem. This would be an interesting field of research. The third area to investigate are differences between L2 levels in morphemic and orthographic word consciousness to further understand their role in L2 reading.

A fourth area of research would be to examine the relationship between word conciousness and L2 reading, whether L2 reading is either a cause or a consequence of word consciousness, or whether reading is both an interactive cause and consequence of word consciousness, as Ehri (1979) has suggested for L1 readers. In addition, it would also be useful to determine differences between levels for the role of cause and/or consequence for L2 reading. In other words, is word consciousness more important as a cause or consequence between levels, or are both at work in both levels?

Finally, it would be useful to further examine the validity of a second language reading threshold at level four as proposed by this research.

SELECTION CRITERIA FOR CHILDREN'S LITERATURE

Researchers who advocate the use of children's literature with ESL adults agree that selection of books is crucial to success (McKay, 1982). Consequently, it is important

to conclude this study with a summary of criteria for selecting children's literature for ESL adults. This summary is a combination of three researchers' sets of criteria as well as my additions. Rather than list each set individually, they are grouped according to categories with reference to each researcher other than my own. The three researchers are as follows: Silverman (1990), Smallwood (1992), and Thistlewaite (1994)

1. Topics. There are several topics mentioned by the three researchers. Silverman suggests world and national events, overcoming obstacles, and a realistic view of a child's world when the characters are children. Thistlewaite lists theme relevance in relationships, and depth of experience. Smallwood suggests multicultural perspectives, and adult themes. My own topics would include politics, history, culture, and biographies.

Series books are also important in these suggestions. I would recommend the following series with examples from this study:

Once Upon America Series: (historical fiction, young adult)

The Day it Rained Forever (the Johnstown flood)

Beautiful Land (Oklahoma Land Run)

Women of Our Time Series: (biography, young adult)

Grandma Moses

Mother Teresa

Picture Book Biography Series: (biography, picture book)

A Picture Book of Frederick Douglass

3. Language and Level. Silverman only mentioned predictable story, Thistlewaite included the ease of reading, and Smallwood listed repeatable language patterns, with input slightly beyond their level according to Krashen's (1985a) theory of comprehensible input (i + 1). Note that many young adult books may have lower reading levels, while picture books may have higher reading levels.

4. Illustrations. Silverman had no mention of illustrations on her list. Thistlewaite mentioned appealing art but not cartoons, and Smallwood suggested clear illustrations that tell the story. My own suggestion relates to the relationship between the visual and verbal languages, in that it would be advisable to limit choosing books which are weak in both areas.

5. Purpose. Smallwood suggested consideration of curricular objectives. My suggestion is that the books selected would contribute to developing ESL adults' background in the history, culture and important people essential to reading in a second language.

Summary

Finally, it is important to highlight the most important conclusions and aspects of this study. First, the three most important conclusions on developmental patterns were word consciousness, the individuality of the learner, and the importance of the visual genre. Word consciousness was found to be crucial to the development of L2 reading vocabulary because subjects differed between levels in L2 linguistic knowledge. The importance of word consciousness for reading finds support in Ehri's (1979) L1 reading research on the interactive relationship between word consciousness and reading. The importance of word consciousness for L2 reading is related to Bialystok's L2 acquisition

research on the importance of control and L2 analyzed knowledge factors (1982; Bialystok & Ryan, 1985). The individuality of the learner was also important for differences found between subjects' focus during the study, L2 vocabulary and reading development, L2 learning strategies, and book choices. Individuality in L2 acquisition is supported by Selinker's (1972) concept of interlanguage. The importance of the visual genre is found in beginner's use of visual as an aid to comprehension, and in the relationship between the visual and verbal languages.

Second, there were four aspects which were the most important in this study. (1) The hypothesis of a specific level for an L2 threshold of reading was important to differentiate between L2 ability levels in organizing and analyzing the data. Furthermore, the results based on this hypothesized level provide a research base for others to examine this L2 phenomenon. (2) A multiple perspective approach to assessment and data analyses was important as a tool to develop a richer and more comprehensive picture of L2 reading vocabulary development for individuals and levels. (3) The learner-driven nature of this study was important because it related to the concept of choice: choice of L2 reading material, L2 vocabulary from reading, and choice in when to read. Choice was important to increase interest in reading a second language, and because it allowed subjects to choose books based on their interests, backgrounds, and abilities. In addition, choice and the results of this study, lend support to Krashen's research and theory that free voluntary reading (FVR) fosters vocabulary and language development (Cho and Krashen, 1994; Krashen, 1985b, 1989, 1993; Polak & Krashen, 1988). (4) Finally, one of the most important aspects was children's literature, not only because of its centrality to the design of this study, but because of its relationship to my purpose to develop a

rationale for the use of this genre with ESL adults. Consequently, the following aspects of children's literature were the most pertinent to this rationale and are listed according to their importance for researchers and teachers, and for ESL adult readers.

For Researchers and Teachers

(1)Vocabulary lists of unknown words per book read were important to differentiate between levels by analyzing L2 linguistic data on vocabulary development, definitions, and dictionary use. (2) Book choices were important to differentiate between levels for reading preferences, backgrounds, and reading levels of the books; to encourage motivation to read in a second language; and for topics of discussion. (3) The visual genre (i.e., picture books) was important to differentiate between levels on subjects' purposes for its use, and choices of visual versus less visual (i.e., young adult books). The visual genre was also important because of the unique relationship between the visual and verbal languages which are inherent to this genre. Consequently, my categories of this relationship provide a resource to use as a teaching tool on the nature of this genre. (4) The selection criteria are an important resource for building a collection of children's literature to use with ESL adults.

For ESL Adult Readers

(1) The variety of genres and topics provided an important resource from which ESL adults chose books based on their interests, backgrounds, and abilities, in addition to gaining background knowledge on the target culture and history. (2) The visual genre was more important to aid comprehension for beginners, but subjects above the threshold also enjoyed this genre because of interest, content, or learning style. (3) In general,

children's literature was an excellent resource for L2 reading material for ESL adults to develop their L2 reading ability, vocabulary, L2 learning strategies, and dictionary skills.

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CHILDREN'S LITERATURE

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Behrens, J. (1990). Barbara Bush, First Lady of Literacy. Chicago, IL: Children's Press (RL: 7.0 – photo journal).

Brandenburg, A. (1988). The many lives of Ben Franklin. Illustrated by Aliki. New York: Simon and Schuster. (RL: 3.5).

Bunting, E. (1990). The wall. Illustrated by R. Himler. New York: Clarion. (RL: 2.5).

Burleigh, R. (1991). Flight. Illustrated by M. Wimmer. New York: Putnam & Gosset. (RL: 4.0).

Burton, V. L. (1942/1969). The little house. Boston, MA: Houghton Mifflin. (RL: 4.0 – Caldecott Medal).

Chadwick, R. (1987). Anne Morrow Lindbergh: Pilot and poet. Minneapolis, MN: Lerner. (RL: 9.1 – photo essay).

Dils, T. E. (1992). George Washington. Illustrated by D. Smolinski. Pinellas Park, FL: Worthington. (RL: 8.0).

Gorsline, M. & Gorsline, D. (1978). The pioneers. New York: Random House. (RL: 7.0).

Greene, C. (1995). Bill Clinton, forty-second president of the United States. Chicago, IL: Children's Press. (RL: 4.9 – photo essay).

Haskins, J. (1989). Count your way through Canada. Illustrated by S. Michaels. Minneapolis, MN: Carolrhoda. (RL: 10.5 – Count your way series).

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Hendershot, J. (1987). In coal country. Illustrated by T. B. Allen. New York: Alfred A. Knopf. (RL: 4.5).

Johnson, A. (1990). When I am old with you. Illustrated by D. Soman. New York: Orchard. (RL: 4.5).

Landau, E. (1993). Bill Clinton. New York: Franklin Watts. (RL: 10.5 – photo essay).

Lessac, F. (1984). My little island. New York: Harper Trophy. (RL: 4.0).

Levine, E. (1989). I hate English. Illustrated by S. Bjorkman. New York: Scholastic. (RL: 2.0).

Libby, B. (1993). Old cat. New York: Grammercy. (RL: 8.3 – literary device of flashback).

Longfellow, H. W. (1990). Paul Revere's ride. Illustrated by T. Rand. New York: Dutton. (RL: 2+)

MacDonald, G. (1946/1974). The little island. Illustrated by L. Weisgard. New York: Scholastic. (RL: 7.2 – Caldecott medal).

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Rand, G. (1992). Prince William. Illustrated by T. Rand. New York: Henry Holt. (RL: 4.3).

Say, A. (1990). El Chino. Boston, MA: Houghton Mifflin. (RL: 5.0).

Simon, C. (1994). Janet Reno, first woman attorney general. Chicago, IL: Children's Press. (RL: 8.8 – photo essay).

Tao, W. (1995). Exploration into China. Parsippany, NJ: New Discovery. (RL: 10.5).

Tresselt, A. (1965). Hide and seek fog. Illustrated by R. Duvoisin. New York: Mulberry. (RL: 6.0 – Caldecott Honor).

Tresselt, A. (1947/1988). White snow, bright snow. Illustrated by R. Duvoisin. New York: Mulberry. (RL: 6.0 – Caldecott Medal).

Waters, K. (1989). Sarah Morton's day. New York: Scholastic. (RL: 4.0 – photo story at Plymouth, MA, 1989 notable children's book in social studies).

Weller, F. W. (1990). Riptide. Illustrated by R. J. Blake. New York: Philomel. (RL: 4.3).

Young Adult

Ackerman, K. (1994). The night crossing. New York: Knopf. (RL: 5.0).

Anderson, W. (1992). Laura Ingalls Wilder, a biography. New York: Harper Trophy. (RL: 3.5).

Antle, N. (1994). Beautiful land. New York: Puffin. (RL: 3.5 – Once upon America series).

Bliven, B., Jr. (1958/1986). The American Revolution. New York: Random House. (RL: 12.8).

Buck, P. S. (1947/1976). The big wave. New York: Harper Trophy. (RL: 4.9).

Choi, S. N. (1993). Echoes of the white giraffe. New York: Bantam. (RL: 6).

Coerr, E. (1993). Mieko and the fifth treasure. New York: Bantam. (RL: 2.8).

Coerr, E. (1977). Sadako and the thousand paper cranes. New York: Dell. (RL: 5.0).

Davidson, M. (1971). Louis Braille. New York: Scholastic. (RL: 3.0).

Giff, P. R. (1987). Mother Teresa, sister to the poor. New York: Puffin. (RL: 6.5 – Woman of our time series).

Gross, V. T. (1991). The day it rained forever. New York: Puffin. (RL 4.0 – Once upon America series).

Haskins, J. (1992). Colin Powell. New York: Scholastic. (RL: 5.0).

Hautzig, E. (1992). Riches. New York: Harper Trophy. (RL: 5.5).

Hurwitz, J. (1988). Anne Frank: Life in hiding. New York: Beech Tree. (RL: 7.5).

Kinsey-Warnock, N. (1989). The Canada geese quilt. New York: Dell. (RL: 3.8).

Kudlinski, K. W. (1989). Helen Keller, a light for the blind. New York: Puffin. (RL: 4.8 – Women of our time series).

Milton, J. (1994). The story of Hillary Clinton, first lady of the United States. New York: Yearling. (RL: 4.2).

Oneal, Z. (1987). Grandma Moses, painter of rural America. New York: Puffin (RL: 5.5 – Women of our time series).

Reiss, J. (1972). The upstairs room. New York: Harper Trophy. (RL: 2.5 – Newbery Honor).

St. George, J. (1992). Dear Dr. Bell.....Your friend, Helen Keller. New York: Beech Tree. (RL: 3.5).

Schlein, M. (1990). The year of the panda. New York: Harper Trophy. (RL: 2.8).

Selden, B. (1989). The story of Walt Disney, maker of magical worlds. New York: Dell. (RL: 3.4).

Stevens, C. (1992). Lilly and Miss Liberty. New York: Scholastic. (RL: 2).

Sullivan, G. (1997). Mr. President. New York: Scholastic. (RL: 5.0).

Wilder, L. E. (1971). The first four years. New York: Harper Trophy. (RL: 8.5).

APPENDIXES

APPENDIX A

INITIAL AND FINAL SURVEY FORMS

Initial Survey

Name _____

Date _____

Language _____

Country _____

Age _____

First Language:

1. Education: high school/college? _____
2. Do you like to read/write?_____
3. What do you like to read?_____
4. How do you rate yourself as a reader? GOOD AVERAGE POOR

Second Language:

1. How long have you been in this country?_____
2. How long have you studied English?_____Where?_____
3. Are you taking other English classes now? _____
4. Do you like to read/write in English?_____
5. What is the most difficult part of learning English?_____
6. How do you learn new words?_____
7. How would you rate your reading in English? GOOD AVERAGE POOR

Final Survey

Name_____

Date _____

Language _____

Country _____

1. How has reading children's literature:

   a. helped you with reading English?_____

   b. helped you with vocabulary development?_____

   c. helped you with writing in English? _____

   d. helped you in other areas of learning English?_____

2. Which aspect of the study was most helpful?_____

3. Which books did you like the most/least? Why?_____

4. What was your favorite book in this study?_____

5. Which aspect of vocabulary development was the most useful to you?_____

6. How did the visual illustrations:

   a. contribute to your understanding of the text or story? _____

   b. contribute to your enjoyment in reading in English?_____

   c. help in any other way?_____

7. How would you rate your reading in English now? GOOD AVERAGE POOR

8. How would you rate your interest in reading English after this study?

   INCREASE SAME DECREASE

APPENDIX B

INDIVIDUAL AND CLASS BOOK CHOICE FORMS, AND VOCABULARY LIST FORM

INDIVIDUAL BOOK CHOICES

Name _____

Date _____

Language _____

Level _____

Books	Dates	Genre	Size	Level	Response

CLASS BOOK CHOICES

Date _____

Student Name	Book Checked Out	Book Returned

VOCABULARY LIST

Name _____

Date _____

Title of Book _____

Author _____

Unknown Words	Definitions

APPENDIX C

INSTITUTIONAL REVIEW BOARD FOR HUMAN SUBJECTS RESEARCH FORMS

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 12-16-96 **IRB#: ED-97-045**

Proposal Title: PATTERNS OF VOCABULARY DEVELOPMENT AMONG ESL ADULTS

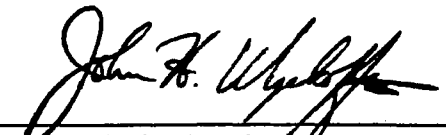
Principal Investigator(s): M. Joshi, Katherine Baker

Reviewed and Processed as: Modification

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.
APPROVAL STATUS PERIOD VALID FOR DATA COLLECTION FOR A ONE CALENDAR YEAR PERIOD AFTER WHICH A CONTINUATION OR RENEWAL REQUEST IS REQUIRED TO BE SUBMITTED FOR BOARD APPROVAL.
ANY MODIFICATIONS TO APPROVED PROJECT MUST ALSO BE SUBMITTED FOR APPROVAL.

Comments, Modifications/Conditions for Approval or Disapproval are as follows:

Signature:  Date: April 24, 1997

Chair of Institutional Review Board

cc: Katherine Baker

OKLAHOMA STATE UNIVERSITY
INSTITUTIONAL REVIEW BOARD
HUMAN SUBJECTS REVIEW

Date: 12-16-96 **IRB#: ED-97-045**

Proposal Title: PATTERNS OF VOCABULARY DEVELOPMENT AMONG ESL ADULTS

Principal Investigator(s): M. Joshi, Katherine Baker

Reviewed and Processed as: Exempt

Approval Status Recommended by Reviewer(s): Approved

ALL APPROVALS MAY BE SUBJECT TO REVIEW BY FULL INSTITUTIONAL REVIEW BOARD AT NEXT MEETING, AS WELL AS ARE SUBJECT TO MONITORING AT ANY TIME DURING THE APPROVAL PERIOD.
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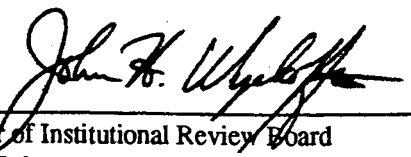
Signature:  Date: December 19, 1996

Chair of Institutional Review Board

cc: Katherine Baker

APPENDIX D

CONSENT FORM

CONSENT FORM

Dear

Thank you for participating in my doctoral research study this semester. I have appreciated working with you. I know that your strategies in learning English will help many teachers to understand different students.

I need your permission to use your data in my dissertation. Please read the statements at the bottom of the page. Then, please sign it with your chosen name.

Thank you for your data and your permission to use it. I wish you success in your studies and in your life.

Sincerely,

Katherine L. Baker

I give my permission to Katherine Baker to use my language data in her doctoral dissertaton. I understand that my identity will be protected in her dissertation, and that she will present my data with a different name, which I chose.

NAME: _____

DATE: _____

VITA

Katherine L. Baker

Candidate for the Degree of

Doctor of Education

Disstertation: PATTERNS OF L2 VOCABULARY DEVELOPMENT AMONG ESL ADULTS

Major Field: Curriculum and Instruction

Biographical:

Education: Graduated from Greenwich High School, Greenwich, Connecticut in June, 1954; received Bachelor of Arts degree in Bible Comprehensive from Cedarville College, Cedarville, Ohio in June, 1986; received Master of Arts degree in English with a TESL emphasis at Oklahoma State University in May, 1992. Completed the requirements for the Doctor of Education with a major in Curriculum and Instruction with an emphasis in reading at Oklahoma State University, Stillwater, Oklahoma in December, 1998.

Experience: ESL volunteer instructor at Family Resource Center at Oklahoma State University 1992-1997; Reading and Study Skills instructor – Curriculum and Instruction department at Oklahoma State University from 1992-1995; ESL tutor with Literacy Volunteers in Ohio, Maine, and Oklahoma from 1980 to present; classroom teaching assistant at an ACE Christian school from 1977-1978. Varied experiences from 1957-1961: typing positions in New York City, Colorado, and Virginia; and medical research assistant for doctor in Connecticut.

Professional Memberships: International Reading Association; TESOL; Kappa Delta Pi; and Phi Delta Kappa.