THE READING SKILLS OF ADULT LEARNERS OF ENGLISH AS A SECOND LANGUAGE

by

DAVID ROBERT TAYLOR
B.A., University of Victoria, 1980

A THESIS SUBMITTED IN PARTIAL FULFILLMENT

OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in the Faculty

of

Education

We accept this thesis as conforming
to the required standard

[redacted]

Dr. Terry D. Johnson

[redacted]

Dr. Arthur V. Olson

[redacted]

Dr. John H. Esling

[redacted]

Dr. Lily Li-Chu Dyson

University of Victoria

Supervisor: Dr. Terry D. Johnson

ABSTRACT

This investigation examines the validity of instructing adult ESL readers using graded word recognition and comprehension skills sequences designed for native English speakers.

A cluster sample of eighteen adult ESL students who were literate in their native language and conversant in English was obtained from an open-enrollment basic literacy class. The students were given reading tests based on word recognition and comprehension skill sequences found at each grade level of basal reader programs for native English speakers. The skills test scores were then analyzed by comparing students' achievement on the skills tests with their overall level of reading proficiency as indicated by an informal reading inventory.

Spearman's rank order correlation coefficient showed a high correlation between students' overall level of reading proficiency and students' level of word recognition and comprehension skills.

Wilcoxon's two-tailed rank sum test further indicated some significant differences in word recognition and comprehension among ESL learners grouped by the following levels of reading proficiency: ninth-grade, fifth- to seventh-grade, first- to second-grade, and pre-primer to primer. In word recognition, the group reading at fifth to seventh-grade levels had significantly better skills than the group reading at first- to second-grade levels.

In comprehension, Wilcoxon's two-tailed rank sum test showed a significant difference in performance between all proficiency groups except the group reading at first- to second-grade levels and the group reading at pre-primer to primer levels.

Percentage comparisons of students' mastery of graded basal skills showed that the more proficient readers had mastered more skills than the less proficient readers.

Students were divided into two groups by reading level (fifth- to ninth-grade and pre-primer to second-grade) and Chi-square tests of each groups' scores on the first- and second-grade word recognition and comprehension skills tests and the third- to fifth-grade word recognition and comprehension skills tests were compared. No differences between proficiency groups were found on the results of the first- and second-grade tests. However, the fifth- to ninth-grade group performed significantly better than the pre-primer to second-grade group on the third- to fifth-grade tests.

The results of this investigation indicate that the adult ESL readers of this study had acquired the sequences of word recognition and comprehension skills appropriate to their reading level as outlined in basal reading programs for native English speakers. Based on this finding, it appears justifiable to use these two skills sequences in teaching reading to this group of adult ESL learners.

Examiners:

[redacted]

Dr. Terry D. Johnson

[redacted]

Dr. Arthur V. Olson

[redacted]

Dr. John H. Esling

[redacted]

Dr. Lily Li-Chu Dyson

Table of Contents

List of Tables

Table | Page

List of Figures

List of Appendices

Chapter 1: Introduction

Currently in British Columbia, reading instruction of adult learners of English as a Second Language (ESL) varies little from "'standard elementary' instruction" (Gunderson, 1985, p. 1). Adult ESL students are commonly taught with basal reading programs involving flashcards, phonics exercises, comprehension worksheets, and oral reading (Gunderson, 1985). The presupposition in such teaching practice is that adult ESL learners and native English speakers similarly acquire the two main skills of reading: word recognition and comprehension (Singer, 1985).

Word recognition ability is usually subdivided into "sight words" and "word attack" skills (Ekwall & Shanker, 1983). Sight words refer to words which are so familiar to the reader that they are instantly recognized; that is, the reader can immediately identify the form and pronunciation of the word. Word attack skills are strategies that the reader can apply when a word is unfamiliar in order to determine how to recognize and thus say or think that word. These skills include structural analysis [i.e., breaking a word into its pronunciation units (e.g., roots, affixes, compounds, hyphenated forms, contractions, syllables)] and phonics (i.e., the association of speech sounds with letters and the blending of these sounds into syllables and words).

Comprehension is also commonly subdivided. Although studies differ on the constituents of comprehension [e.g., eight skills (Davis, 1968); four skills (Spearitt, 1972); one skill (Thorndike, 1973)], for instructional purposes, comprehension generally entails

competencies such as the ability to use context clues to derive the meaning of unknown words and vocabulary knowledge (Ekwall & Shanker, 1983).

While word recognition and comprehension are requisite for everyone reading English (Singer, 1985), the fact that adult ESL learners are taught reading in the same way as native English speakers presumes uniformity in the ESL and first language reading skills acquisition process. This process has been outlined in the developmental substrata-factor reading models constructed by Holmes (cited in Singer, 1985) and extended by Singer (cited in Singer, 1985).

Singer (cited in Singer, 1985) tested the developmental hypothesis that as individuals learn to read they develop sub-strata factors, or skills, that are sequentially and hierarchically organized. A large battery of skill tests was administered to native English readers of different proficiency levels. The skills or combination of skills which explained the greatest proportion of variance in a criterion variable, like comprehension, were subsequently identified by grade level.

Singer (cited in Singer, 1985) noted that the extent to which factors predicted criterion variables differed across grades. For example, letter-sound knowledge was a predictor of reading comprehension in the lower grades, but dropped out as a predictor of comprehension in the intermediate grades because the subjects had learned these relationships. On the other hand, knowledge of word meanings increased in predictive ability from Grade 1 to college reading level.

Singer (cited in Singer, 1985) also observed that when skills ceased to function as predictors of reading ability, these mastered skills made indirect contributions to the variance in reading through other factors. For example, it was found that syllabication made a direct contribution to variance in reading comprehension in Grade 3, but only an indirect contribution by way of "visual verbal conceptualization" and "word recognition in context" at Grades 4, 5, and 6. Based on the increasing and diminishing predictive ability of factors across grade levels, it was concluded that a hierarchical organization of skills accompanies improvement in reading: Skills are sequentially developed with mastered subskills being subsumed in the skills of higher grades. The implications this developmental principle has for the present study are discussed in the next section.

The Purpose of the Study

The purpose of the present study was to investigate the degree of similarity between adult ESL reading and native English reading by determining if the developmental principle of first language reading skills acquisition applied to adult ESL learners. That is, do proficient adult ESL readers have better word recognition and comprehension skills than less proficient adult ESL readers?

A second aspect of this investigation was suggested by Ekwall and Shanker's (1983) research of how reading skills are sequenced for instruction. Ekwall and Shanker (1983) analyzed the latest editions of seven basal reading series noting the latest grades at which the authors of the series agreed word recognition and

comprehension skills should be mastered. This sequence of skills (see Appendix A) has implications for adult ESL readers in that they commonly receive basal instruction (Gunderson, 1985); however, it has not been determined that ESL readers master skills in the grade order in which basal series presume first language readers master skills. Therefore, this investigation has also examined whether adult ESL learners gain word recognition and comprehension skills in the grade order identified by Ekwall and Shanker (1983).

Since the aim of this study was to make a comparative exploration of native English reading acquisition and ESL reading acquisition, the following questions were asked:

1. Do proficient adult ESL readers have better word recognition and comprehension skills than less proficient adult ESL readers?

2. Do adult ESL learners acquire specified reading skills in the same grade order utilized in basal reading programs for native English speakers?

Assumptions, Limitations, and Delimitations

Assumption.

Intelligence is an important factor in reading achievement (Singer, 1985; Thorndike, 1973). The ESL instructor's assessment of the ESL subjects for the study as being of at least average intelligence and without learning disabilities was assumed to be accurate.

Limitations.

1. The possibility of the ESL subjects' native language interfering with their skills test performance could not be controlled in this study.

2. The small number of ESL learners comprising each reading proficiency group provides a restrictive view of each group's reading performance.

3. The test instruments used for measuring skills development (with the exception of the Gates-MacGinitie Reading Tests) are unvalidated other than by the opinions of reading experts (i.e., Ekwall & Shanker, 1983).

4. Standardized tests have been found to inaccurately represent the reading abilities of ESL learners (Gunderson, 1984). The use of parts of the Gates-MacGinitie Reading Tests for the purposes of measuring the vocabulary and comprehension skills of the ESL subjects was expedient for this study. However, the measures obtained may not have reflected the extent to which the subjects had mastered these skills.

Delimitation.

Because of the descriptive procedure employed and the fact that data describe one non-randomly selected group, no conclusions could be extended beyond the group of individuals observed. Any similarity to those outside the group could not be assumed.

Summary

Adult ESL learners are often taught a sequence of word recognition and comprehension skills modeled on basal reading instruction for native English speakers. This practice presupposes that reading improvement of adult ESL learners, like that of native English speakers, involves mastery of word recognition and comprehension skills. A further assumption is that adult ESL learners acquire

these reading skills in the same grade order utilized in basal reading programs for native English speakers.

To examine the validity of this practice, the present study of a group of 18 adult ESL learners in a community college basic literacy program has focused on two questions:

1. Do proficient adult ESL readers have better word recognition and comprehension skills than less proficient adult ESL readers?

2. Do adult ESL learners acquire specified reading skills in the same grade order utilized in basal reading programs for native English speakers?

Chapter 2: Review of the Literature

Introduction

The two questions for study have received peripheral examination through inquiries into the universality of the reading process.

It has been claimed that the process of reading is universal in that writing is a code founded on the meaning systems of speech (Downing, 1979; Ehri, 1979; Smith, 1982), and learning how to read in any language consists of discovering the functions and form of writing and how they are related to speech (Downing, 1979; Esling & Downing, 1985; Smith, 1973, 1982, 1983). Cross-cultural studies indicate that irrespective of differences in language form, fluent reading is characterized universally by the same reasoning processes (Thorndike, 1973), and operationalized universally by the same psycholinguistic system of sampling, selecting, and predicting from the available signal (K.S. Goodman, 1971. 1973; Kolers, 1966). Thus the skills associated with oracy and literacy are learned only once, and serve as a referent for the mastery of skills implicated in the learning of other languages (Cummins, 1983; Esling & Downing, 1983; K. S. Goodman, 1971, 1973; Krashen, 1985; Krashen & Terrell, 1983).

The above views of language and reading universals bear on the research questions of this investigation suggesting that the process of reading acquisition in English is fundamentally the same for both ESL and native language learners. The literature survey therefore examines the derivation of these views by considering how native language learning is related to reading development,

and how these skills transfer from a first language to ESL reading acquisition.

Factors in Language and Reading Development

Cognition.

Cognitive psychology suggests that language acquisition, as with all learning, is not a simple reproduction of what is experienced, but is a dynamic construction embodying elements of what is previously known, what is believed, and what is expected (Anderson, 1977). This process is based on non-visual information, prior knowledge stored in long-term memory in an interrelated, hierarchial, semantic network of cognitive structures technically referred to as schemata (Anderson, 1977; Rumelhart, 1977; Rumelhart & Ortony, 1977).

According to schema theory, sensory input must be matched with some existing schema. Each schema contains variables, or features, some of which are obligatory. Obligatory variables are those features having attributes, or values, which must be defined in order to subscribe meaning to what is being attended to using a minimum amount of information (process of instantiation). Where a spoken or written message lacks information to fit every important variable of a schema, the learner fills these variables with default values, or inference. Learning occurs as cognitive structures are developed and modified as a result of the experiences gained through interaction between the learner and his or her linguistic environment (Anderson, 1977; Rumelhart, 1977; Smith, 1982).

Rumelhart and Ortony (1977) see a continuity between perception and comprehension, describing perception as "comprehension of sensory

input" (p. 110). Cognitive structures are divided into categories. Language learners unconsciously develop implicit rules that are based on the distinctive features of a category in order to assign category membership to incoming sensory input (Rumelhart, 1977; Smith, 1982). Smith (1982) refers to Chomsky's theory of transformational-generative grammar to explain how a category is consolidated.

Transformational-generative grammar.

Chomsky's theory of transformational-generative grammar suggests that distinctive features of sound constitute the surface structure of an utterance (Chomsky, 1981). Text consists of a surface structure composed of the distinctive features of print (Smith, 1982). The surface structure is comprehended as the listener or reader uses "productive grammar" (Smith, 1982, p. 80) to extract the meaning, or deep structure, from what is being said or read (Chomsky, 1981; Smith, 1973, 1982). This grammar consists of a "lexicon" and "syntax," or set of rules, for the selection and ordering of lexical entries (Chomsky, 1981; Smith, 1982).

According to Smith (1973, 1982) and Athey (1983), the productive grammar for language learning is acquired as utterances are related meaningfully to experience. Smith (1973) explains that:

> An adult expanding child language is providing a specific adult-language surface structure for a deep structure that the child already has in his mind. It is not simply a matter of "correcting" but of giving information so that the child can verify a rule that he has just applied, at a time when he can relate it to the appropriate deep structure. (p. 144)

Thus, children unconsciously and inductively generate their own productive linguistic rules (Forester & Mickelson, 1979) which they modify given exposure to a variety of standard speech (Aitchison, 1983) and an opportunity to engage in verbal interaction with other speakers (Moskowitz, 1983).

Children come to conceptualize the arbitrary nature of language as they understand that one surface structure may represent several concepts depending on its contextual use (Ruddell & Haggard, 1985). Smith (1982) postulates that it is the cognitive process of prediction that reduces the number of probable meanings that can be construed from a particular surface structure. It is the redundant and conventional nature of both oral and written language that makes prediction possible (Smith, 1982). Beginning readers learn to apply their knowledge of the phonological and semantic conventions of oral language to the comprehension of written material. In addition, unconscious knowledge of the syntax of English promotes the construction of holistic meanings from linear surface forms (Chomsky, 1981; Smith, 1982).

Differences in the functions and form of speech and writing.

Experience with spoken language serves as a referent for learning to read. Halliday (1975) describes language as serving both a "pragmatic" function for interpersonal communication, and a "mathetic" function for ideational expression (i.e., expression which is declarative, observational, and reflective of experience). Downing (1979) sees a continuum between speech and writing as "literacy

extends the scope of the pragmatic functions of language, and learning how to read and write is a natural extension of the mathetic functions, as the child increases his own understanding of the functions and features of language" (p. 7). However, Kleiman and Schallert (1978) observe that this transition from spoken to written language is not easily accomplished "since the use of writing for more informational, rather than interpersonal, communication. . . contributes to the novice readers' need to increase and expand their knowledge" (p. 141).

Through their discussion of the demands which print imposes on the language user by virtue of its form, Kleiman and Schallert (1978) identify differences between speech and print. First, the intonation and stress present in speech but lacking in writing make the reader more dependent on syntactic and semantic information in determining constituent boundaries and in identifying focal information. More complex vocabulary, syntax, and discourse structures are found in writing than in speech, requiring more world and linguistic knowledge of the reader than the listener. Writing is less redundant than speech. Although the permanence of text permits a review of the message, readers, unlike speakers, are unable to influence how the message is communicated.

Further to the above differences between speech and print, Rubin (1978) notes the greater temporal context-switching (3.g., use of "now", "today", and verb tense markers) used in writing than in speech, and also the difficulty in separating characters in writing. Separating characters is simplified in spoken language

by the concreteness of referents in most conversations. The study of pragmatics, the context in which language is transmitted and understood, indicates that the situation in which an utterance occurs aids a listener in predicting the meaning of spoken language (Chaika, 1982; Smith & Wilson, 1979). The reader, on the other hand, must typically learn to anticipate the author's intended meaning of a written passage outside of the situation in which it is being read by using the context or surface structure of the text to infer meaning (Athey, 1983; Smith, 1982).

Although speech and writing are different, Smith (1982) argues that learning to read resembles learning to speak in so far as "rules that cannot be verbalized. . .are hypothesized and tested with little conscious awareness" (p. 148). This raises the issue of metalinguistic awareness in reading acquisition.

Metalinguistic awareness.

Smith (1982, 1983) maintains that metalinguistic awareness of language is a consequence of being able to read rather than a prerequisite. In reading, immediate word and meaning identification help the reader to understand metalinguistic concepts associated with phonic correspondences, the use of context cues, and the identification of new words by analogy (Smith, 1982, 1983).

A number of studies support Smith's (1982, 1983) view. Gibson, Pick, Osser, and Hammond (1962) reported that children taught using a whole word approach perceived regularities in sound and spelling patterns and were able to transfer these rules to decoding unfamiliar trigrams.

Morais, Cary, Alegria, and Bertelson (1979) found that illiterate Portuguese adults could not delete or add a phoneme to a nonsense word, a task literate adults were able to perform. Morais et al. (1979) concluded that awareness of speech "as a sequence of phonemes" (p. 323) does not arise spontaneously in cognitive development, but is likely a result of learning to read in the alphabetic system.

Ehri (1983) compared preschool and kindergarten prereaders' perceptions of elements of speech. Ehri found that the readers were better than the prereaders at (a) putting spoken words in a "story", (b) dividing sentences into words and words into syllables by tapping or laying down poker chips to represent the units of spoken language, and (c) identifying the word distinguishing two otherwise identical sentences. It was concluded that the prereaders' difficulties were a result of their inability to recognize words as units in their language.

Opposing Smith's (1982) view, Mattingly (1972, 1984) argues that speech is a primary linguistic activity while reading is a secondary linguistic activity dependent on the awareness of the primary activity. Research (e.g., Fox & Routh, 1976; Liberman & Shankweiler, 1978) has demonstrated a correlation between metalinguistic awareness and success in learning to read. This suggests that some awareness of constituents of speech parts may be prerequisite to reading acquisition.

In their review of the varied research findings, Downing (1979), Ehri (1979), and Routh and Fox (1984) take an intermediary position between that expressed by Smith (1982) and that expressed by Mattingly

(1972). Ehri's (1979) cogent summary of the bidirectional relationship between metalinguistic awareness and success in reading supports an interactive theory of reading:

> Although alternative causal relationships between lexical awareness and learning to read may be distinguishable logically, they may not be all that separable and mutually exclusive in reality. Rather lexical awareness may interact with the reading acquisition process, existing as both a consequence of what has occurred and as a cause facilitating further progress. For example, the beginning reader may learn first the printed forms of sounds he recognizes as real words. In this case, lexical awareness helps him learn to read. Once known, these familiar printed landmarks may, in turn, aid him in recognizing the syntactic-semantic functions of unfamiliar printed words so that he can mark these as separate words in his lexicon. In this case, decoding written language enhances lexical awareness. If this picture of the process is more accurate, then there exists truth in both positions. Rather than battling over which comes first, it may be more fruitful to adopt an interactive view and to investigate how a child applies his knowledge of spoken words to the task of reading printed language, and how enhanced familiarity with written words changes his knowledge of speech, enabling him to accommodate better to print. (p. 84)

The Interactive Theory of Reading

As spoken and written language are not the same, it is generally agreed that beginning readers must be assisted in developing an understanding of the reading task (Downing, 1979; Ehri, 1979; Smith, 1982). Current reading theory suggests that in both English as a first and second language such an understanding will take into account the hypothesis-based, multi-level and interactive nature of the reading process (Eskey, 1988; Eskey & Grabe, 1988; Grabe, 1988; Spiro, 1980). In this interaction between cognitive and linguistic elements in reading, both "top-down" (i.e., conceptually-driven) and "bottom-up" (i.e. data-driven) processing contributes

to the construction of meaning (Eskey, 1988; Eskey & Grabe, 1988; Grabe, 1988; Spiro, 1980).

Top-down processing has been described by K. S. Goodman (1976) as a "psycholinguistic guessing game" in which thought interacts with language. The reader reconstructs the author's message through an ongoing cyclical process of sampling the text for graphic cues with which to form perceptual images; predicting decodable language structures from the perceptual images; testing structures for syntactic and semantic consistency with preceding textual information; and confirming or revising predictions based on the outcome of the hypothesis test (K. S. Goodman, 1971, 1973, 1976).

While top-down processing is "purposeful, selective, anticipatory, and based on comprehension" (Smith, 1982, p. 3), bottom-up processing involves the accurate, sequential assemblage of visual information resulting in comprehension being built up (Gough, 1972; LaBerge & Samuels, 1976) and governed by the text only (Olson, 1975). Gough (1972) has argued that each letter in the visual field must be identified in sequence before meaning can be assigned to a string of letters. LaBerge and Samuels (1976) have posited that visual information must first be analyzed progressively and then phonologically recoded prior to comprehension.

Schema theorists Rumelhart (1977) and Adams and Collins (1979) accommodate both top-down and bottom-up perspectives in their depiction of reading. They see the instantiation of variables which occur in reading comprehension as the product of conceptually-driven and data-driven processing strategies applying simultaneous constraints

to interpretation at all levels of the schema and associated schemata. Adams and Collins (1978) describe schema-directed processing in this way:

> The data that are needed to instantiate or fill out the schemata become available through bottom-up processing; top-down processing facilitates their assimilation if they are anticipated or are consistent with the reader's conceptual set. Bottom-up processing ensures that the reader will be sensitive to information that is novel or that does not fit her or his ongoing hypotheses about the content of the text; top-down processes help the reader to resolve ambiguities or to select between alternative possible interpretations of the incoming data. Through the interactions between top-down and bottom-up processing, the flow of information through the system is considerably constrained. (p. 5)

The interactive process through which perceptual elements coalesce into meaning can be illustrated in considering a schema for a concept such as pride. The graphic input of the word "pride," activates interconnections between schemata at the letter level of the word, one letter triggering an expectation for another letter (Adams & Collins, 1977; Rumelhart, 1989). With the identification of the word, higher level schemata corresponding to the word are invoked. These higher level schemata within the pride schema syntactically and semantically facilitate the identification of words in the text which are connected with the word "pride". Operating in parallel to this top-down action, letter schemata continue to assist in feature analysis of these related words, resulting in word recognition and subsequent construction of textual meaning from the bottom-on-up.

Comprehension, then, must first involve processing the text information, for as Athey (1983) notes, "all the hypotheses and

expectations in the world don't help if the words can't be made out" (p. 199). In efficient reading, automatized decoding permits words to directly access conceptual schema so that information can be matched against the prototypic cognitive structures for the objects, events, or situations referred to in the text (Stanovich, 1980). If the reader's expectations are confirmed at the lower levels, textual and schematic information can be integrated thus producing a complete knowledge structure for the object, event, or situation described. If a discrepancy exists between graphic input and hypotheses which have been generated, the reader must revert to conscious bottom-up processing (Stanovich, 1980).

While skilled readers are able to make this shift in their mode of processing, accommodating the demands of a particular text and situation (Spiro, 1978), research indicates that less skilled readers tend to over rely on processes in one direction. Biemiller (1971) found that the oral reading errors of the first-grade readers in his study reflected a developmental stage in which subjects focused on graphic information and ignored context. With experience these readers were able to utilize contextual constraints of text in addition to graphic constraints. Y. M. Goodman (1976) observed that prior to attending to the semantic content of text, the beginning readers in her study went through a phase in which they attended primarily to graphic information.

Research in ESL reading (e.g., Clarke, 1978; Cziko, 1978, 1980; Devine, 1981; Wilson, 1983) shows that beginning second language readers, like first language readers, are often restricted to a

bottom-up mode of processing (Carroll, 1984). The perspectives of second language acquisition put forth by Krashen (1982, 1985), Krashen and Terrell (1983), and Cummins (1983) serve as a useful reference point from which to examine this research.

Second Language Acquisition and Reading

Krashen (1982, 1985) extends Smith's (1982) view of language to the study of second language acquisition by distinguishing between language "learning" and "acquisition". Learning entails gaining explicit knowledge about the formal rules governing language use, while acquisition is an unconscious process which occurs in the course of communication. Krashen (1982) argues that "acquisition is central" (p. 20) as it is through acquired knowledge that utterances can be initiated and comprehended. Learning, on the other hand, is "more peripheral" (Krashen, 1982, p. 20), functioning as a "monitor" which edits utterances for grammaticality only after they are produced by the acquired system.

A requirement for second language acquisition is comprehensible input, or messages the language acquirer is able to understand (Krashen, 1982, 1985). Krashen (1982, 1985) envisions comprehensible input promoting language acquisition because it contains "i + 1", structures the acquirer has mastered (i) plus a structure or set of structures just beyond the acquirer's current level of competence (1).

Comprehensible input is necessary for the acquisition of second language reading as well as speech according to the model presented by Krashen and Terrell (1983). Krashen and Terrell (1983) argue

with Smith (1982) that, given comprehensible input in reading, the reader's application of meaning to the interpretation of text will precede the acquisition of metalinguistic knowledge (i.e., "learned" knowledge).

Krashen (1985) maintains that when ESL learners understand their native language, they can read for meaning in English from the beginning. This view is congruent with K. S. Goodman's (1973) hypothesis that:

> Semantic aspects of the reading process cannot vary to any extent from one language to another, since the key question is how much background the reader brings to the specific reading. . .It would seem that the reading process will be much the same for all languages with minor variations to accommodate the specific characteristics of the orthography used and the grammatical structure of the language. (p. 27)

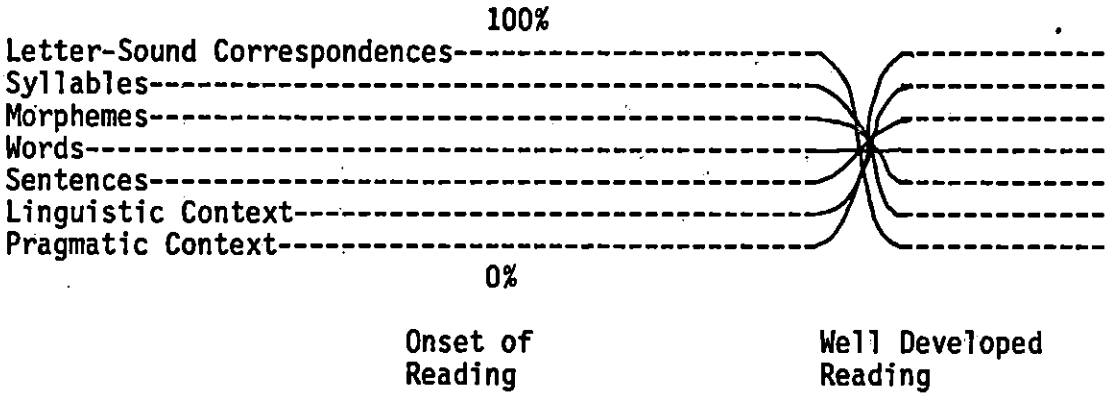
Krashen and Terrell (1983) and Krashen (1985) maintain that difficulty caused by orthographic and grammatical differences between a learner's native language and English will be solved in the course of the teaching of meaning-getting strategies (e.g., prediction, use of context).

Cummins (1983) notes that "cognitive academic language proficiency" (i.e., metalinguistic awareness) in English is also necessary for second language reading. Print is context-reduced, and thus "successful interpretation of the message depends heavily on knowledge of the language itself" (Cummins, 1983, p. 9). The ESL reading research discussed in the next section reveals the interactive nature of second language reading by indicating both the importance of language awareness as outlined by Cummins (1983), and the importance of meaning-getting strategies as outlined by Krashen (1982, 1985) and Krashen and Terrell (1983).

Research in ESL Reading

As in reading English as a first language, Shuy (cited in Coady, 1979) points out that mastering the linguistic skills of reading is the dominant concern of the beginning ESL learner while the experienced ESL learner depends on higher-level cues involving linguistic and pragmatic context (see Figure 1). The research findings reported by Clarke (1978), Cziko (1978, 1980), Devine (1981), and Wilson (1983) underscore Shuy's view.

Figure 1. The maturation of the Reading process.



(Shuy, 1977, p. viii)

Clarke (1978) conducted a two-part study to discover if first language reading strategies would transfer to second language reading in English. The subjects were low-level adult ESL students categorized as good and poor readers based on a cloze test in Spanish, their native language. In the first part of the study, Clarke (1978) administered an English cloze test to find out if the good readers would continue to rely more on semantics and the poor readers more on syntax as observed on the Spanish cloze. The rank order established on the Spanish cloze test was maintained in the English cloze test.

However, on the English cloze test there was a reduction of the good readers' use of semantic clues while both good and poor readers were found to rely equally on syntactic clues.

In the second part of the study, Clarke (1978) compared the performance of a good native Spanish reader with a poor native Spanish reader in their reading of Spanish and English. Consistent with his initial findings, Clarke observed that the marked difference between readers in their Spanish reading performance was decreased in their English reading performance.

Clarke (1978) concluded that first language reading strategies transferred to second language reading, but this transfer was constrained by a "language competence ceiling" (p.138). He surmised that limited control over the foreign language was "short circuiting" the language systems of the good readers causing them to demonstrate less effective reading behaviors in the target language.

Limited second language reading competence was also found to constrain the use of effective reading strategies in two studies conducted by Cziko (1978, 1980). In the first study, Cziko (1978) compared three proficiency levels of English-speaking Grade 7 students learning French as a second language and a control group of native French speakers. The reading performance of the four groups was analyzed according to subjects' use of syntactic, semantic, and discourse constraints in anomolous and meaningful texts. While all four groups were able to make use of the syntactic constraints present in the anomalous texts, only the most proficient second language group and the native French-speaking group read meaningful texts significantly faster than anomalous texts.

As the proficient group demonstrated the use of semantic and discourse constraints in reading meaningful text in addition to the use of syntactic constraints, Cziko (1978) concluded that: (a) syntactic, semantic, and discourse constraints were important sources of information for fluent reading; (b) poor second language reading might be due to the readers' inability to use these contextual constraints; and (c) there was evidence of a developmental order in the second language readers' ability to use contextual constraints (i.e., sensitivity to syntactic constraints leads to sensitivity to semantic and discourse constraints).

In the second study, Cziko (1980) used a miscue (i.e., error) analysis procedure to compare the French oral reading of two groups of seventh-grade English-speaking students with intermediate and advanced competence in French as a second language and a group of native French speakers. The miscue data revealed that the native French-speaking students and the students with advanced competence in French as a second language used both graphic and contextual information interactively in reading French. In contrast, students with less competence in French did not use contextual information to the same extent and instead employed a more bottom-up strategy of relying primarily on graphic information.

Devine (1981) and Wilson (1983) noted miscue results like those Cziko (1980) obtained. Devine (1981) divided 14 adult Spanish-speaking ESL students into low, medium, or high proficiency groups. Groups were found to demonstrate the type and quantity of English reading errors observed in studies of first language

readers of comparable proficiency. The low and middle groups relied on grapho-phonemic cues to a greater extent than did the high group, while the reverse was true for semantic cues.

Wilson's (1983) analysis of the oral reading errors produced by adult subjects of varied language backgrounds and low to intermediate ESL competence also showed a similarity to first language studies. Wilson concluded that literacy acquisition in a second language is like that in a first language.

Although the proficient second language readers studied by Clarke (1978), Cziko (1978,1980), Devine (1981), and Wilson (1983) demonstrated the flexible use of both data- and conceptually driven strategies as employed by first language readers, Cohen, Glasman, Rosenbaum-Cohen, Ferrara, and Fine (1979) and Carroll (1983) observed that the intermediate and advanced adult ESL readers in their studies were not processing text like fluent native language readers.

Cohen et al. (1979) reported that the adult ESL readers in their study did not selectively attend to visual information in expository writing whereas the native speakers did. Unlike the native readers, the ESL readers paid closer attention to content words and less attention to cohesive ties such as: but, however, also, finally, and thus. Consequently, the ESL readers were better able to identify specific details within sentences, but they did not have a sense of the coherence of text.

The adult ESL readers Carroll (1983) studied were also deemed to be ineffectually bound to the text. Carroll examined the use of context (picture and title preceding a passage), textual

transparency clues (specific, concrete lexical items) and prior knowledge by a native English-speaking group, an advanced ESL group, and a high intermediate ESL group. Group comparisons were made using adaptations of Bransford and Johnson's (cited in Carroll, 1983) "Washing Clothes" and "Balloon Serenade" as experimental instruments. These comparisons revealed that both ESL groups, unlike the native speaker group, were: (a) unable to use context in a top-down processing mode to make predictions of what the text was going to be about; (b) unable to use lexical clues in a bottom-up processing mode to build up a mental representation of the text; and (c) unable to accurately assess how difficult a text was.

The above research clearly supports Cummins' (1983) argument that learning linguistic skills in the second language is necessary for skilled ESL reading. There is also evidence supporting Krashen and Terrell's)1983) claim that:

> Second language acquirers with limited syntactic competence can still extract meaning from texts that contain syntax that is 'beyond them'. . .if the topic is familiar and enough of the vocabulary is understood. . .They can comprehend a text that contains some structure beyond their i + 1. (p. 133)

Hudson (1982) investigated whether semantic knowledge could in fact compensate for a lack of syntactic knowledge. He induced schemata in intermediate and advanced levels of ESL students by administering three pre-reading activities: (a) reading a passage, taking a test, rereading the passage, and taking the test again; (b) studying a vocabulary list prior to reading and being tested; and (c) looking at pictures relating to the general topic of the passage and making predictions about the passage content.

Hudson (1982) found that there was an improvement in reading across proficiency levels when subjects utilized induced schemata in comprehending a text. He also found that advanced level ESL readers had less trouble processing visual information and altering schemata than the beginning and intermediate readers. Hudson concluded that assisting ESL readers, especially lower level readers, to produce consistent initial schemata would help them in overcoming the effects of a second language linguistic ceiling.

Like Hudson, Devine (1987) also found that schema activation mitigated the ceiling effect created by low language proficiency. Devine (1987) compared the comprehension of two groups of ESL readers of low, medium, and high language proficiency, the first group having an interactive view of the reading process and the second group having a text-bound view of the reading process. A significant positive correlation was noted between the pre- and post-reading comprehension of the interactive group, with an especially pronounced difference in the scores of the lower proficiency readers. No correlation was observed between the pre- and post-reading scores of the text-bound group. However, a much higher correlation existed between the language proficiency and post-reading scores of the text-bound group than the interactive group.

Devine (1987) concluded that the ceiling effect of limited ESL reading proficiency could be mitigated by an interactive internalized model which enabled readers to activate already existing schemata. A text-bound model, on the other hand, would not allow the activation of pre-existing schemata and thus reading ability would be limited by low ESL proficiency.

Summary

The studies by Cohen et al. (1979) and Carroll (1983) suggest that ESL learners do not read like first language learners. However, as Hudson (1982) notes, "much of the research into the L 1 effects of schemata and context is applicable to L 2 reading" (p. 20). Schemata and context are among the factors implicated in the acquisition of speech and writing in any language (Downing, 1979; Goodman, 1973; Kolers, 1966; Smith, 1983). Esling and Downing (1985) suggest that the fundamental task of the language learners acquiring reading is to find out how speech and writing are similar and different. To this end, it is apparent that for both first and second language learners, reading skills in English build on language competence in English.

The prediction and sampling cycle by which background knowledge is applied will not lead to comprehension without the language proficiency required to activate relevant schemata. In other words, for both first language and ESL readers there is a symbiosis between the word recognition and semantic components of reading, each component affecting the degree to which the other affects reading proficiency (Devine, 1987; Hudson, 1982; Stanovich, 1980).

Components are often subdivided into a sequence of skills according to grade level in order to facilitate instruction (Samuels & Schacter, 1978). Adult ESL readers commonly receive such instruction through basal reading programs (Gunderson, 1985). These programs assume that at certain grades some word recognition and comprehension skills have been mastered while some of these skills have yet to be learned.

To determine how appropriate the expectations of basal programs are for adult ESL learners, two research questions have provided the focus of the present study:

1. Do proficient adult ESL readers have better word recognition and comprehension skills than less proficient adult ESL readers?

2. Do adult ESL learners acquire specified reading skills in the same grade order utilized in basal reading programs for native English speakers?

With respect to the first question, native English language studies (e.g., Biemiller, 1971; Y. M. Goodman, 1976) and ESL studies (e.g., Clarke, 1978; Hudson, 1982) suggest that improved word recognition promotes better comprehension and these competencies lead to a higher level of reading ability. It follows that more proficient adult ESL readers should have better word recognition and comprehension skills than less proficient adult ESL readers.

Pertinent to the second question are the similarities in oral reading error patterns of developing first and second language readers irrespective of their age and first language (e.g., Cziko, 1980; Devine, 1981; Wilson, 1983). These similarities suggest that adult ESL readers will have the word recognition and comprehension skills basal reading programs for native English speakers presume to be appropriate for their level of fluency.

Chapter 3: Method

Introduction

This study adopted a cross-sectional approach involving descriptive methods of data collection. That is, data was collected only once on a sample. Sampling was nonrandom. The sample was an intact group comprised of the 18 members of an adult ESL basic literacy class in a local community college. Data consisted of raw reading skills test scores.

Subjects

Four male and 14 female class members of an open-enrollment adult ESL basic literacy program (see Appendix B for the program objectives) comprised a cluster sample of 18 subjects.

Prior to beginning the study, the researcher individually approached each of the 18 members of the ESL basic literacy program and provided each member with a description of the proposed study. Each class member was then asked if he or she would be willing to participate in the study by meeting individually with the researcher at the site of his or her basic literacy class with the purpose of taking reading tests. The 18 subjects thus obtained ranged in age from 25 to 60 with the majority being between 30 and 40. The group was heterogeneous in terms of language background. Fifteen of the 18 subjects had an alphabetic first language while three subjects had a non-alphabetic first language (Chinese). The distribution of subjects' native languages was as follows: 1 Norwegian; 1 Magyar (Hungarian); 1 Serbo-Croation (Yugoslavian); 1 Czech; 2 German; 1 Danish; 1 Italian; 2 Portuguese; 1 Urdu

(Pakistan); 1 Vietnamese; 2 Farsi; 1 Arabic; and 3 Chinese. Subjects were literate in their native language. All 18 subjects were conversant in English. The subjects' instructor estimated the ESL reading levels of class members to range from Grades 1 to 8. The average ESL reading level of the class was estimated to be Grade 4.

Instrumentation

Two Informal Reading Inventories (IRIs) were used to determine a baseline measure of subjects' reading proficiency: the Basic Reading Inventory, Form A (Johns, 1978) for pre-primer through Grade 8, and the Advanced Reading Inventory, Form A (Johns, 1981) for Grade 9 through college.

The reliability and the content validity of the Basic Reading Inventory and the Advanced Reading Inventory were derived from the researcher alone administering the reading inventories to each subject and scoring all reading inventory results. The content validity of the Basic Reading Inventory was further obtained from the test author's evaluation of reading inventory selections using the Spache, Fry, and Dale-Chall readability formulas (Johns, 1978). The content validity of the Advanced Reading Inventory was further obtained from the test author's evaluation of reading inventory selections using the Fry and Dale-Chall readability formulas and by field testing the inventory (Johns, 1981).

The basal reader skills tests that were subsequently administered are shown in Appendix A. Basal reader skills were divided into two parts: those concerned with word recognition and those concerned

with understanding the text. Tests for understanding the text examined the subjects' ability to derive word meanings either through the use of vocabulary knowledge or through the application of word attack skills (e.g., phonic analysis, structural analysis, and context clues). Tests for understanding the text also examined the subjects' text comprehension.

Most of the tests of word meaning and all of the text comprehension tests were based on the Gates-MacGinitie Reading Tests, 1980, Canadian edition, Form 2, Levels A to E (i.e., for Grades 1.5 through 9). The first- to third-grade vocabulary tests taken by the subjects consisted of every 5th item of 45 vocabulary items from the Gates-MacGinitie Reading Tests, Levels A to C. The fourth- to ninth-grade vocabulary tests taken by the subjects consisted of every 2nd and 3rd item of 45 vocabulary items from the Gates-MacGinitie Reading Tests, Levels D and E.

The first- and second-grade comprehension tests taken by the subjects consisted of every 4th question of 40 comprehension questions from the Gates-MacGinitie Reading Tests, Levels A and B. The third-grade comprehension test taken by the subjects consisted of two questions on every 4th of 22 passages from the Gates-MacGinitie Reading Test, Level C, beginning with passage six. The fourth- to ninth-grade comprehension tests taken by the subjects consisted of 10 questions selected from the passages for each grade in the Gates-MacGinitie Reading Tests, Levels D and E.

The authors of Gates-MacGinitie Reading Tests indicate steps to ensure test validity. The test authors report Kuder-Richardson

20 reliability coefficients ranging from .85 to .94 for each vocabulary test level and .85 to .92 for each comprehension test level (MacGinitie, Kamons, Kowalski, MacGinitie, & MacKay, 1980). A split-half reliability coefficient of .99 was calculated for the Gates-MacGinitie-based vocabulary tests administered to the subjects, and a coefficient of .98 was calculated for the Gates-MacGinitie-based comprehension tests administered to the group.

All tests other than the Gates-MacGinitie-based vocabulary and comprehension tests were derived from procedures Ekwall and Shanker (1983) outline for determining if basal skills have been mastered. These test procedures were adapted to skill sequences (see Appendix A) selected from Ekwall and Shanker's (1983) logical analyses (i.e., statement about the skills necessary for reading). Ekwall and Shanker's analyses reflect the latest grades at which the authors of seven basal series agreed skills should be mastered. In the present study, skills that Ekwall and Shanker identify as firmly established in mid-grade were tested in the preceding grade. The reliability of the tests proposed by Ekwall and Shanker was derived from the researcher alone administering and scoring the tests.

One of the most important word attack skills a reader can possess is the ability to use context clues (Ekwall & Shanker, 1983). The cloze procedure is recommended by Ekwall and Shanker (1983) as a means of evaluating the use of context clues. The reading selections selected for the cloze tests in this study were taken from the Basic Reading Inventory, Forms B and C (Johns, 1978)

and the Advanced Reading Inventory, Form B (Johns, 1981). The six words chosen to be omitted from each passage were those for which few or no substitutions could be made in the context in which they were used. A split-half reliability coefficient of .98 was calculated for the cloze tests.

Procedure

The purpose of this study was to investigate the degree of similarity between adult ESL reading and native English reading by examining these questions:

1. Do proficient adult ESL readers have better word recognition and comprehension skills than less proficient adult ESL readers?

2. Do adult ESL learners acquire specified reading skills in the same grade order utilized in basal reading programs for native English speakers?

Data collection.

Data was collected using a "one-shot" (X-O) design as follows: To assess subjects' overall reading proficiency, The Basic Reading Inventory (Johns, 1978) and the Advanced Reading Inventory (Johns, 1981) were individually administered to each subject. Subjects were then rank ordered on the basis of the "instructional level" achieved on these reading inventories. Johns (1978, 1981) defines the instructional level in the established manner as a score of 90 to 98 percent for word recognition, and a score of 50 to 89 percent for comprehension. Tied ranks were resolved by considering differences in subjects' total instructional level score.

The oral basal reader skills tests for "word recognition" and "understanding the text" (see Appendix A) were subsequently administered to each subject. The test directions given to the subjects are noted in Appendix A under the heading "[Skills Test] Check". The subjects were encouraged to complete as much of these tests as they felt able to. The performance of each subject was recorded during the test session. The accuracy of the test results from the IRIs and the oral basal reader skills tests was confirmed through tape recording each test session and rechecking the data obtained.

Subjects were requested to complete at home the basal reader skills tests requiring silent reading. The tests requiring silent reading were modified Gates-MacGinitie Reading Tests for vocabulary and comprehension. Subjects were requested to complete as much of these tests as they could finish without the aid of reference materials (e.g., a dictionary, notes) or the assistance of another person.

Data analysis.

To answer the first research question, subjects were rank ordered by their total score on all tests of word recognition and their total score on all tests of understanding the text. Spearman's rank order coefficient of correlation (r_s) was then used to determine the extent of agreement between subjects' rank on the IRI, rank on word recognition, and rank on understanding the text. Wilcoxon's rank-sum test (W_s) was used to analyze this data for word recognition and understanding the text when subjects were grouped by overall proficiency.

Data pertinent to the second research question were analyzed through percentage comparisons by grade level of subjects' basal reader skills for word recognition and understanding the text. Subjects' scores on the modified Gates-MacGinitie vocabulary and comprehension tests were also analyzed through percentage comparisons. In addition, Chi-square (χ^2) tests of grouped data for word recognition and understanding the text were calculated. A two-tailed .05 level of significance was established for all statistical tests.

Summary

This section indicates in detail the design of the study. The characteristics of the sample of ESL adult learners are stated, and the testing instruments are described. A description of the means by which the data were collected and analyzed completes this chapter.

Chapter 4: Results

Research Question #1

The first research question was: Do proficient adult ESL readers have better word recognition and comprehension skills than less proficient adult ESL readers? Spearman's rank order coefficient of correlation (r_s) was used to compare subjects' rank on the IRI, rank on word recognition, and rank on understanding the text. The results are shown in Table 1.

Table 1

Spearman's Rank-Order Correlation Coefficient for the IRI, Basal Reader Skills for Word Recognition, and Basal Reader Skills for Understanding the Text

	IRI
Word Recognition	.91
Understanding the Text	.87

Wilcoxon's two-tailed rank-sum test (W_s) was used to analyze the data for word recognition and the data for understanding the text when ESL learners were divided into groups by their overall level of reading proficiency (i.e., according to their instructional level on the IRI). The data (i.e., test scores) for word recognition and for understanding the text were first analyzed by dividing subjects into two reading proficiency groups: fifth- to ninth-grade proficiency (n = 9) and pre-primer to second-grade proficiency (n = 9). The data were then analyzed by dividing subjects into

four reading proficiency groups: ninth-grade proficiency (n = 3), fifth- to seventh-grade proficiency (n = 6), first- to second-grade proficiency (n = 5), and pre-primer to primer proficiency (n = 4).

When subjects were divided into two proficiency groups, significant differences were found between groups. The group reading at the fifth- to ninth-grade levels scored significantly higher both on tests of word recognition and on tests of understanding the text than the group reading at the pre-primer to second-grade levels ($p<.05$). The data for word recognition tests are illustrated in Table 2, while the data for tests of text understanding are illustrated in Table 3.

Table 2

Wilcoxon's Rank-sum Test for Word Recognition with Subjects Divided into Two Reading Proficiency Groups

Pre-primer - Grade 2		Grades 5-9	
Raw Score	Rank	Raw Score	Rank
266	1	433	10
294	2	435	11
304	3	438	12
361	4	446	13
383	5	449	14
388	6	455	15
416	7	457	16
417	8	461	17
432	9	463	18

Note: $W_s = 45$, $p<.05$. Reject H_0.

Table 3

Wilcoxon's Rank-sum Test for Understanding the Text with Subjects Divided into Two Reading Proficiency Groups

Pre-primer - Grade 2		Grades 5-9	
Raw Score	Rank	Raw Score	Rank
34	1	122	10
52	2	139	11
59	3	143	12
61	4	162	13
66	5	177	14
80	6	186	15
91	7	189	16
92	8	192	17
109	9	209	18

Note: $W_s = 45$, $p<.05$. Reject H_0.

When subjects were divided into four proficiency groups, significant differences in word recognition were found between the group reading at the fifth- to seventh-grade levels and the group reading at the first- to second-grade levels ($p<.05$). The group reading at the fifth- to seventh-grade levels performed significantly better. The data are presented in Table 4.

Table 4

Wilcoxon's Rank-sum Test for Word Recognition with Subjects Reading at the First- to Second-grade Levels and Subjects Reading at the Fifth- to Seventh-grade Levels

Grades 1 - 2		Grades 5 - 7	
Raw Score	Rank	Raw Score	Rank
304	1	433	6
361	2	435	7
416	3	438	8
417	4	446	9
432	5	455	10
		463	11

Note: $W_s = 15$, $p<.05$. Reject H_0.

No significant differences in word recognition were found between the group reading at the ninth-grade level and the group reading at the fifth- to seventh-grade levels, and between the group reading at first- to second-grade levels and the group reading at pre-primer to primer levels.

A summary is presented in Table 5 of Wilcoxon's rank-sum test results for word recognition when ESL learners were divided into four reading proficiency groups.

Table 5

Summary of Wilcoxon's Rank-sum Test for Word Recognition With Subjects Divided into Four Reading Proficiency Groups

Group	Reading Grade Level	W_s Test Results
1	9	Not Significant
2	5-7	Significant
3	1-2	Not Significant
4	PP-P	

Note: PP = Pre-primer; P = Primer

For tests of text understanding, it was found that when the ESL readers were divided into four groups, the group reading at the ninth-grade level had significantly better skills than the group reading at the fifth- to seventh-grade levels ($p<.05$). The data are shown in Table 6.

It was also noted that the group reading at the fifth- to seventh-grade levels had significantly better text understanding skills than the group reading at the first- to second-grade levels ($p<.05$). The data are presented in Table 7.

Table 6

Wilcoxon's Rank-sum Test for Understanding the Text with Subjects Reading at the Ninth-grade Level and Subjects Reading at the Fifth- to Seventh-grade Levels

Grade 9		Grades 5-7	
Raw Score	Rank	Raw Score	Rank
209	1	189	3
192	2	177	5
186	4	162	6
		143	7
		139	8
		122	9

Note: $W_s = 7$, $p<.05$. Reject H_0.

Table 7

Wilcoxon's Rank-sum Test for Understanding the Text with Subjects Reading at the First- to Second-grade Levels and Subjects Reading at the Fifth- to Seventh-grade Levels

Grades 1 - 2		Grades 5 - 7	
Raw Score	Rank	Raw Score	Rank
52	1	122	6
61	2	139	7
90	3	143	8
91	4	162	9
92	5	177	10
		189	11

Note: $W_s = 15$, $p<.05$. Reject H_0.

No significant differences in text understanding were observed between the group reading at the first- to second-grade levels and the group reading at pre-primer to primer levels.

Presented in Table 8 is a summary of Wilcoxon's rank-sum test results for understanding the text when ESL learners were divided into four reading proficiency groups.

Table 8

Summary of Wilcoxon's Rank-sum Test for Understanding the Text with Subjects Divided into Four Proficiency Groups

Group	Reading Grade Level	W_s Test Results
1	9	Significant
2	5-7	Significant
3	1-2	Not Significant
4	PP-P	

Note: PP = Pre-primer; P = Primer

Research Question #2

The second research question was: Do adult ESL learners acquire specified reading skills in the same grade order utilized in basal reading programs for native English speakers? Percentage comparisons by reading grade level of subjects' acquisition of basal reader skills for wrod recognition and understanding the text are presented in Tables 9 and 10.

As shown in Table 9, the word recognition scores of most subjects reading at the fifth- to ninth-grade levels did not decline

as the grade level of the basal reader skills tests increased, whereas the scores of most subjects reading at the pre-primer to second-grade levels dropped.

The scores presented in Table 10 suggest that subjects' understanding of the text decreased relative to their level of overall proficiency as measured on the IRI. This pattern is also evident in Tables 11 and 12 which show percentage comparisons for the vocabulary and comprehension skills in understanding the text. However, the performance of most subjects on the graded basal reader skills tests exceeded the instructional level suggested by the IRI.

Vocabulary and comprehension scores together are presented in Tables 13 and 14. As shown in Tables 13 and 14, most subjects' scores for vocabulary and comprehension were similar. However, there were exceptions. Most notable were the vocabulary scores of four subjects (7, 9, 17, and 18) which were much higher than their comprehension scores at the same grade level, and the comprehension scores of two subjects (5 and 11) which were much higher than their vocabulary scores at the same grade level.

Table 9

Percent of Basal Reader

Word Recognition Skills Mastered

Subject	IRI Grade	Grade 1	2	3	4	5	Total
1	9	93	88	100	91	100	92
2	9	93	84	93	100	100	91
3	9	91	85	93	93	100	89
4	7	93	92	89	88	87	92
5	6	91	80	96	95	80	87
6	6	93	80	86	98	100	88
7	5	87	85	89	88	80	86
8	5	90	79	86	93	93	86
9	5	93	86	96	88	93	90
10	2	90	80	89	86	87	86
11	2	89	80	75	74	67	83
12	2	75	48	54	64	0	60
13	2	80	68	50	69	40	72
14	1	93	73	79	74	80	83
15	P	88	71	64	57	27	76
16	P	73	52	0	0	0	53
17	PP	84	73	64	76	53	77
18	PP	60	50	79	69	80	58

Table 10

Percent of Basal Reader Skills Mastered for Understanding the Text

Subject	IRI Grade	Grade 1	2	3	4	5	6	7	8	9	Total
1	9	92	96	93	89	92	85	89	81	58	86
2	9	100	89	87	86	81	73	89	42	42	77
3	9	100	93	63	82	77	81	81	69	73	79
4	7	92	79	80	71	81	77	73	81	69	78
5	6	85	86	67	68	42	58	46	39	39	59
6	6	65	71	70	64	50	65	65	46	15	57
7	5	77	68	30	46	42	42	46	62	42	50
8	5	81	79	87	61	69	77	73	69	62	73
9	5	85	89	80	61	69	62	58	50	46	67
10	2	89	75	67	57	19	12	0	0	12	38
11	2	85	64	67	46	27	12	27	4	4	38
12	2	69	71	63	64	35	23	0	0	0	37
13	2	69	75	53	18	4	0	0	0	0	25
14	1	69	71	47	0	0	0	0	0	0	22
15	P	54	46	17	4	0	0	0	0	0	14
16	P	81	71	53	7	0	0	0	0	0	24
17	PP	73	68	57	50	31	31	35	35	23	45
18	PP	81	61	37	32	15	8	0	0	0	26

Note: Percentages for understanding the text are based on the total of scores obtained on prefix meaning tests, cloze tests, and modified Gates-MacGinitie Reading Tests (see Appendix A, 2.01 to 2.30).

Table 11

Percent of Basal Reader Vocabulary Skills Mastered

Subject	IRI Grade	Grade 1	2	3	4	5	6	7	8	9	Total
1	9	100	100	90	100	90	90	100	70	50	88
2	9	100	100	90	100	100	80	100	60	40	86
3	9	100	100	80	70	80	100	100	50	100	87
4	7	100	100	90	100	100	100	100	90	100	98
5	6	70	80	30	50	10	30	30	10	0	34
6	6	80	80	90	100	70	90	80	30	0	69
7	5	90	80	40	70	70	70	50	100	90	73
8	5	100	90	90	90	90	100	100	90	90	93
9	5	100	100	100	100	100	100	100	90	80	97
10	2	90	80	90	50	0	0	0	0	30	38
11	2	90	90	80	40	10	0	0	0	0	34
12	2	90	90	90	100	70	60	0	0	0	56
13	2	80	90	80	0	0	0	0	0	0	28
14	1	90	90	80	0	0	0	0	0	0	29
15	P	50	40	20	0	0	0	0	0	0	12
16	P	100	100	100	20	0	0	0	0	0	36
17	PP	100	100	100	100	80	80	90	90	60	89
18	PP	100	100	70	90	40	20	0	0	0	47

Note: Percentages for vocabulary are based on scores from modified Gates-MacGinitie Reading Tests (see Appendix A, 2.01 to 2.30).

Table 12

Percent of Basal Reader Comprehension Skills Mastered

Subject	IRI Grade	Grade 1	2	3	4	5	6	7	8	9	Total
1	9	90	100	100	100	100	80	80	90	80	91
2	9	100	90	90	90	90	80	90	50	70	83
3	9	100	100	80	100	90	90	80	90	90	91
4	7	100	90	100	100	90	100	70	80	80	90
5	6	100	100	100	100	70	100	90	90	100	94
6	6	90	100	90	70	60	80	90	90	40	79
7	5	90	70	50	60	40	40	70	60	20	56
8	5	90	100	100	70	90	100	90	90	70	89
9	5	90	100	90	50	80	60	50	40	40	67
10	2	90	100	50	70	50	30	0	0	0	43
11	2	100	60	80	90	60	30	70	10	10	57
12	2	90	90	90	80	20	0	0	0	0	41
13	2	80	100	70	40	10	0	0	0	0	33
14	1	90	100	60	0	0	0	0	0	0	28
15	P	70	70	30	0	0	0	0	0	0	19
16	P	100	100	60	0	0	0	0	0	0	29
17	PP	80	90	70	40	0	0	0	0	0	31
18	PP	100	60	30	0	0	0	0	0	0	21

Note: Percentages for comprehension are based on scores from modified Gates-MacGinitie Reading Tests (see Appendix A, 2.01 to 2.30).

Table 13

Percent of First- to Fourth-grade Basal Reader Vocabulary and Comprehension Skills Mastered

	Grade							
	1		2		3		4	
Subject	V	C	V	C	V	C	V	C
1	100	90	100	100	90	100	100	100
2	100	100	100	90	90	90	100	90
3	100	100	100	100	80	80	70	100
4	100	100	100	90	90	100	100	100
5	70	100	80	100	30	100	50	100
6	80	90	80	100	90	90	100	70
7	90	90	80	70	40	50	70	60
8	100	90	90	100	90	100	90	70
9	100	90	100	100	100	90	100	50
10	90	90	80	100	90	50	50	70
11	90	100	90	60	80	80	40	90
12	90	90	90	90	90	90	100	80
13	80	80	90	100	80	70	0	40
14	90	90	90	100	80	60	0	0
15	50	70	40	70	20	30	0	0
16	100	100	100	100	100	60	20	0
17	100	80	100	90	100	70	100	40
18	100	100	100	60	70	30	90	0

Note: Percentages for vocabulary and comprehension are based on scores from modified Gates-MacGinitie Reading Tests (see Appendix A, 2.01 to 2.30). V = Vocabulary; C = Comprehension.

Table 14

Percent of Fifth- to Ninth-grade Basal Reader Vocabulary and Comprehension Skills Mastered

	Grade									
	5		6		7		8		9	
Subject	V	C	V	C	V	C	V	C	V	C
1	90	100	90	80	100	80	70	90	50	80
2	100	90	80	80	100	90	60	50	40	70
3	80	90	100	90	100	80	50	90	100	90
4	100	90	100	100	100	70	90	80	100	80
5	10	70	30	100	30	90	10	90	0	100
6	70	60	90	80	80	90	30	90	0	100
7	70	40	70	40	50	70	100	60	90	20
8	90	90	100	100	100	90	90	90	90	70
9	100	80	100	60	100	50	90	40	80	40
10	0	50	0	30	0	0	0	0	30	0
11	10	60	0	30	0	70	0	10	0	10
12	70	20	60	0	0	0	0	0	0	0
13	0	10	0	0	0	0	0	0	0	0
14	0	0	0	0	0	0	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0
16	0	0	0	0	0	0	0	0	0	0
17	80	0	80	0	90	0	90	0	60	0
18	40	0	20	0	0	0	0	0	0	0

Note: Percentages for vocabulary and comprehension are based on scores from modified Gates-MacGinitie Reading Tests (see Appendix A, 2.01 to 1.30). V = Vocabulary; C = Comprehension.

Chi-square (χ^2) tests of the percentage scores by grade level among two reading proficiency groups (group 1, subjects reading at the fifth- to ninth-grade levels, and group 2, subjects reading at the pre-primer to second-grade levels) were computed for both word recognition and understanding the text. The sample size (n) for the chi-square tests was equal to the percentage of test items for word recognition or understanding the text which were correctly answered by both proficiency groups.

The chi-square test of word recognition test scores among proficiency groups showed no significant difference between groups for first- to second-grade test scores, χ^2 (1, n = 2910) = 2.79, $p < .05$. The data are shown in Table 15.

Table 15

Observed and Expected Percentage Scores on First- to Second-grade Word Recognition Tests

	Observed Grade		Expected Grade		
	1	2	1	2	
Group 1	824	759	846.44	736.56	1583
Group 2	732	595	709.56	617.44	1327
			1556	1354	2910

The chi-square test showed a significant difference between the third- to fifth-grade word recognition test scores obtained by the group reading at the fifth- to ninth-grade levels and the

group reading at the pre-primer to second-grade levels, χ^2 (2, n = 4052) = 13.62, p<.05. The more proficient group obtained significantly higher scores. The data are illustrated in Table 16.

Table 16

Observed and Expected Percentage Scores on Third- to Fifth-grade Word Recognition Tests

	Observed Grade			Expected Grade			
	3	4	5	3	4	5	
Group 1	828	834	833	850.96	863.89	780.15	2495
Group 2	554	569	434	531.04	539.11	489.85	1557
				1382	1403	1267	4052

The chi-square test of text understanding scores among proficiency groups also showed no significant difference between groups for first- and second-grade scores, χ^2 (1, n = 2799) = .89, p<.05. Results are presented in Table 17.

Table 17

Observed and Expected Percentage Scores on First- to Second-grade Tests for Understanding the Text

	Observed Grade		Expected Grade		
	1	2	1	2	
Group 1	777	750	789.41	737.59	1527
Group 2	670	602	657.59	614.41	1272
			1447	1352	2799

The chi-square test showed a significant difference between the third- to fifth-grade test scores obtained by the group reading at the fifth- to ninth-grade level and the group reading at the pre-primer to second-grade levels, χ^2 (2, n = 2758) = 112.70, $p<.05$. The better readers obtained significantly higher scores than the poorer readers. The data are presented in Table 18.

Table 18

Observed and Expected Percentage Scores on Third- to Fifth-grade Tests for Understanding the Text

	Observed Grade			Expected Grade			
	3	4	5	3	4	5	
Group 1	657	628	603	765.33	620.21	502.46	1888
Group 2	461	278	131	352.67	285.79	231.54	870
				1118	906	734	2758

Summary

Major results are summarized as follows:

1. Spearman's rank order correlation coefficient showed a high correlation between subjects' overall level of reading proficiency as measured by the IRI, and their skills in word recognition and understanding the text.

2. Wilcoxon's two-tailed rank sum test indicated significant differences in word recognition among ESL learners grouped by reading proficiency. The group reading at fifth- to seventh-grade levels had significantly better word recognition skills than the group reading at first- to second-grade levels ($p<.05$). No significant differences in word recognition were found between the group reading at a ninth-grade level and the group reading at fifth- to seventh-grade levels, and between the group reading at first- to second-grade levels and the group reading at pre-primer to primer levels.

3. Wilcoxon's two-tailed rank sum test indicated significant differences in understanding the text among ESL learners grouped by reading proficiency. The group reading at a ninth-grade level performed significantly better than the group reading at fifth- to seventh-grade levels and the group reading at fifth- to seventh-grade levels performed significantly better than the group reading at first- to second-grade levels ($p<.05$). No significant differences in understanding the text were found between the ESL learners reading at first- to second-grade levels and the learners reading at pre-primer to primer levels.

4. Percentage comparisons of subjects' mastery of graded basal skills (see Tables 9 to 14) show that more proficient readers have mastered more skills than less proficient readers. In their graded test performance, all subjects were successful beyond the grade suggested by the IRI instructional level. There was a large discrepancy in the vocabulary and comprehension scores obtained by six subjects.

5. Chi-square tests of first- and second-grade word recognition and text understanding scores obtained by the group reading at fifth- to ninth-grade levels and the group reading at pre-primer to second-grade levels show no significant differences between scores. Chi-square tests of scores for word recognition and understanding the text obtained by each group reading at the third- to fifth-grade skills test levels show significant differences between the scores achieved by each group. The ESL learners with fifth- to ninth-grade reading proficiency performed significantly better than the learners with pre-primer to second-grade levels ($p<.05$).

Chapter 5: Conclusions

Research Question #1

The adult ESL readers in the present research were literate in their native language and conversant in English. Like native English readers, the proficient adult ESL readers had better word recognition and comprehension skills than the less proficient adult ESL readers. This relationship is evidenced by the high degree of agreement between ESL learners' rank on the IRI used to measure their overall reading proficiency (i.e., rank according to instructional level) and their rank for the total of all word recognition tests (r_s = .91). This relationship is also shown by the high degree of agreement between subjects' IRI rank and their rank on the total of all tests of understanding the text (r_s = .87).

The correlation between the ESL adult learners' level of overall reading ability and the grade level they achieved on tests of word recognition and understanding the text is further demonstrated by Wilcoxon's rank sum tests. Wilcoxon's rank sum test of proficiency groups' understanding of the text indicates a significant increase in text understanding between each group from the group reading at the first- to second-grade levels to the group reading at the ninth-grade. These results are consistent with both the developmental substrata-factor statistical model of native English reading acquisition proposed by Singer (1985) and, more generally, with an interactive approach to ESL reading.

Singer's (1985) substrata-factor statistical model predicts improved understanding of text through all reading proficiency

levels as a result of vocabulary growth and the acquisition of word recognition skills. Singer (1985) identifies vocabulary knowledge as an open-ended factor increasing through the grades and thus directly affecting comprehension at all reading levels. On the other hand, discrete word recognition skills (e.g., letter-sound correspondence and syllabication) are close-ended factors because they directly affect reading only at the primary and lower intermediate reading levels in which they are not mastered (Singer, 1985).

Basal reader programs for native English speakers presume that by the end of a sixth-grade reading level, word recognition skills have been firmly established (Ekwall & Shanker, 1983). This is supported by Singer's (cited in Singer, 1985) research which finds that word recognition skills are subsumed in other skills such as vocabulary knowledge thus producing a ceiling effect on tests of word recognition after a sixth-grade level of reading proficiency.

This ceiling to the acquisition of word recognition skills which Singer (1985) identifies as occurring around a sixth-grade level of reading competence is apparent among the more proficient ESL adult readers of the present study. In contrast to the significantly greater number of skills mastered by the readers functioning at fifth- to seventh-grade levels compared to the readers functioning at first- to second-grade levels are the absence of significant differences in the number of word recognition skills acquired by the two lowest proficiency groups (i.e., the group reading at the pre-primer to primer levels and the group reading at the first- to

second-grade levels) and the two highest proficiency groups (i.e., the group reading at the fifth- to seventh-grade levels and the group reading at a ninth-grade level).

As in Singer's (1985) model of native English reading, the two lower ESL groups have similarly not developed word recognition skills which both upper groups have acquired. This finding suggests that acquisition of word recognition skills utilized in basal reading programs for native English speakers is associated with reading improvement. An implication of this finding is that the lower-level adult ESL learners of this study would benefit from instruction in word recognition skills presented in first-language basal reader programs (see Appendix A for phonics, vocabulary and other reading skills utilized in basal series for native English speakers).

The validity of using the sequence of word recognition skills found in first-language basal series to teach decoding skills to the adult ESL readers of this study is also suggested by the observation of no statistically significant increase in the understanding of text between the group reading at pre-primer to primer levels and the group reading at first- to second-grade levels. This outcome parallels the results of native English language studies of beginning readers conducted by Biemiller (1971) and Y. M. Goodman (1976), and the second language studies of beginning readers conducted by Clarke (1978), Cziko (1980), Devine (1981) and Wilson (1983). These studies show that limited word recognition ability of beginning readers causes them to overly rely on data-driven reading strategies (i.e., focusing on graphic information and

ignoring context) which, in turn, adversely affect their use of top-down strategies. As this research provides evidence that comprehension is based on word recognition, it follows that in the present investigation the similarly limited word recognition of the two lower groups may have limited both groups' understanding of text in a comparable way. As elaborated by Eskey (1988):

> The rapid and accurate decoding of language is important to any kind of reading and especially important to second language reading. Good readers know the language: They can decode, with occasional exceptions, both the lexical units and syntactic structures they encounter in texts, and they do so, for the most part, not by guessing from context or prior knowledge of the world, but by a kind of automatic identification that requires no conscious cognitive effort. . .Good decoding skills are therefore one of the causes. . .of fluent (both rapid and accurate) reading. No doubt the whole process is reciprocal, but that is exactly what an interactive model would predict. (p. 94)

As Eskey (1988) asserts, it is important to teach word recognition skills to low-level adult ESL readers such as the adult ESL learners of this study who were reading at the pre-primer to second-grade levels. Considered next is the relevance of basal reader skill sequences for teaching decoding and comprehension to adult ESL readers.

Research Question #2

Adult ESL students are commonly taught with basal series (Gunderson, 1985). In the current study, the adult ESL readers examined (i.e., adult ESL readers who were literate in their native language and conversant in English) acquired skills for word recognition and comprehension in the same grade order utilized in basal reading programs for native English speakers as indicated

by: (a) the correspondence between subjects' overall reading proficiency and their basal reader skills test scores for word recognition and understanding the text, and (b) the chi-square test results showing that the pre-primer to second-grade proficiency group can be differentiated from the fifth- to ninth-grade proficiency group only from basal reader skills test scores above the second grade level (i.e., skills tests exceeding the instructional reading levels of all members of the lower proficiency group).

Based on this finding, the ESL teaching practice of using a graded sequence of word recognition and comprehension skills modelled on basal reading instruction for native English speakers appears justifiable with the adult ESL learners in the present investigation. Moreover, using a basal approach to instruction is a way of ensuring that these students of basic English literacy receive a holistic program that systematically integrates both the linguistic and conceptual elements known to interact in the reading process.

Suggestions for Further Study

In the present investigation it was observed that the performance of most subjects on the graded basal reader skills tests surpassed the instructional level suggested by the IRI, considered to be one of the most accurate means of determining ESL reading ability (Gunderson, 1984). It was also observed that a large discrepancy existed in the vocabulary and comprehension scores obtained by six subjects. Pertinent to these findings are

results obtained by Gunderson (1984). Gunderson found variations in the measures of ESL reading ability obtained from two different standardized reading achievement tests (the Comprehensive Test of Basic Skills and the Woodcock Reading Mastery Test) which had provided similar measures of reading ability for a group of native English speakers. Gunderson concluded that these tests, and possibly all standardized test, produce inaccurate estimations of ESL reading proficiency.

In that the skills tests used in the present study were based on modified standardized reading achievement tests (Gates-MacGinitie Reading Tests) and procedures unvalidated other than by the opinions of reading experts (i.e., Ekwall & Shanker, 1983), further exploration of these skills tests is suggested as follows:

1. Repeat the study using a similar adult ESL group to see if the reading skills tests represent subjects' reading ability in the manner apparent in this study.

2. Repeat the study using native English speakers (children or illiterate adults) with reading proficiency comparable to the adult ESL subjects of this study and compare the results with those obtained in this study.

3. Repeat the study using children who speak English as a second language to see how the test represents the reading of ESL subjects who are not literate in their native language.

References

Adams, M. J., & Collins, A. M. (1979). A schema theoretic view of reading. In R. O. Freedle (Ed.), New directions in discourse processing (Vol. 2, pp. 1-22). Norwood, N.J.: Ablex.

Aitchison, J. (1981). Predestinate grooves: Is there a pre-ordained language "program"? in V. Clark, P. Escholz, & A. Rosa (Eds.), Language: Introductory readings (3rd ed.) (pp. 112-134). New York: St. Martin's Press.

Anderson, R. C. (1977). The notion of schemata and the educational entreprise. In R. C. Spiro & W. E. Montague (Eds.), Schooling and the acquisition of knowledge (pp. 415-431). Hillsdale, NJ: Erlbaum.

Athey, I. (1983). Language development factors related to reading development. Journal of Educational Research, 76, 197-203.

Biemiller, A. (1970). The development of the use of graphic and contextual information as children learn to read. Reading Research Quarterly, 6, 307-318.

Carrell, P. (1983). Three components of background knowledge in reading comprehension. Language Learning, 33, 183-207.

Carrell, P. (1984, October). Interactive text processing: Implications for ESL reading classrooms. Paper presented at the Midwest Regional TESOL meeting, Cincinnati, OH.

Chaika, E. (1982). Discourse routines. Language: The social mirror. Rowley, MA: Newbury House.

Chomsky, N. (1981). Form and meaning in natural languages. In V. Clark, P. Escholz, & A. Rosa (Eds.), Language: Introductory readings (3rd ed.) (pp. 377-392). New York: St. Martin's Press.

Clarke, M. A. (1978). Reading in Spanish and English: Evidence from adult ESL students. Language Learning, 29, 121-150.

Coady, J. (1979). A psycholinguistic model of the ESL reader. In R. MacKay, B. Barkman, & R. R. Jordan (Eds.), Reading in a second language (pp. 5-12). Rowley, MA: Newbury House.

Cohen, A., Glasman, H., Rosenbaum-Cohen, P. R., Ferrara, J., & Fine, J. (1979). Reading English for specialized purposes: Discourse analysis and the use of student informants. TESOL Quarterly, 18, 329-256.

Cummins, J. (1983). Implications of Bilingual proficiency for the education of minority language students. In Allen & Susan (Eds.), ELT Documents. Toronto: Pergamon.

Cziko, G. A. (1978). Differences in first- and second-language reading: The use of syntactic, semantic and discourse constraints. Canadian Modern Language Review, 34, 473-489.

Cziko, G. A. (1980). Language competence and reading strategies: A comparison of first and second language oral reading errors. Language Learning, 30, 101-116.

Davis, F. B. (1968). Research in comprehension in reading. Reading Research Quarterly, 3, 499-545.

Devine, J. (1981). Developmental patterns in native and non-native reading acquisition. In S. Hudelson (Ed.), Linguistics and literacy: Vol. 1. Learning to read in different languages (pp. 103-114). Washington: CAL.

Devine, J. (1987). Models of reading and schema activation. Unpublished manuscript, Skidmore College, Saratoga Springs, NY.

Downing, J. (1979). Reading and reasoning. New York: Springer-Verlag.

Ehri, L. C. (1979). Linguistic insight: Threshold of reading acquisition. In T. G. Waller & G. E. MacKinnon (Eds.), Reading research: Advances in theory and practice (Vol. 1, pp. 63-114). New York: Academic Press.

Ehri, L. C. (1983). How orthography alters spoken language. In J. Downing & R. Valtin (Eds.), Language and communications: Vol. 17. Language awareness and learning to read. (pp. 119-147). New York: Springer-Verlag.

Ekwall, E. E., & Shanker, J. L. (1983). Diagnosis and remediation of the disabled reader (2nd ed.). Newton, MA: Allyn and Bacon.

Eskey, D. E. (1988). Holding in the bottom: An interactive approach to the language problems of second language readers. In P. Carrell, J. Devine, & D. Eskey (Eds.), Interactive Approaches to Second Language Reading (pp. 93-100). New York: Cambridge University Press.

Eskey, D. L., & Grabe, W. (1988). Interactive models for second language reading: Perspectives on instruction. In P. Carrell, J. Devine, & D. Eskey (Eds.), Interactive Approaches to Second Language Reading (pp. 223-259). New York: Cambridge University Press.

Esling, J. H., & Downing, J. (1985, November). What do ESL students need to learn about reading? In P. M. Lightbown & S. P. Firth (Eds.), TESL Canada Journal: Special Issue 1, pp. 55-68.

Forester, A., & Mickelson, N. I. (1978). Language acquisition and learning to read. In R. Shafer (Ed.), Applied linguistics and reading (pp. 74-88). Newark: IRA.

Fox, B., & Routh, D. K. (1976). Phonemic analysis and synthesis as word-attack skills. Journal of Educational Psychology, 68, 70-74.

Gibson, E. J., Pick, A., Osser, H., & Hammond, M. The role of grapheme-phoneme correspondence in the perception of words. American Journal of Psychology, 75, 554-570.

Goodman, K. S. (1971). Psycholinguistic universals in the reading process. In P. Pimsleur & T. Quinn (Eds.), The psychology of second language learning (pp. 135-142). Cambridge: Cambridge University.

Goodman, K. S. (1973). Psycholinguistic universals in the reading process. In F. Smith (Ed.), Psycholinguistics and reading (pp. 21-27). New York: Holt, Rinehart, and Winston.

Goodman, K. S. (1976). Reading: A psycholinguistic guessing game. In H. Singer & R. Ruddell (Eds.), Theoretical models and processes of reading (2nd ed.) (pp. 497-508). Newark: IRA.

Goodman, Y. M. (1976). Developing reading proficiency. In P. D. Allen & D. J. Watson (Eds.), Findings of miscue analysis: Classroom implications. Urbana, IL: ERIC.

Gough, P. B. (1972). One second of reading. In J. Kavanaugh & I. Mattingly (Eds.), Language by ear and by eye (pp. 331-358). Cambridge, MA: MIT Press.

Grabe, W. (1988). Reassessing the term "interactive". In P. Carrell, J. Devine, & D. Eskey (Eds.), Interactive approaches to second language reading. New York: Cambridge University Press.

Gunderson, L. (1984). Reading achievement assessment of L1 and L2 students in regular classrooms. TEAL Occasional Papers, 8, 30-40.

Gunderson, L. (1985, March). A study of L2 reading instruction in ESL and mainstream classrooms in British Columbia. Paper presented at the TEAL 18th annual convention, Richmond, B.C.

Halliday, M. A. K. (1975). Learning how to mean. London: Edward Arnold.

Hudson, T. (1982). The effects of induced schemata on the "short circuit" in L2 reading: Non-decoding factors in L2 reading performance. Language Learning, 32, 1-31.

Johns, J. (1978). Basic reading inventory. Dubuque, IA: Kendall/Hunt.

Johns, J. (1981). Advanced reading inventory. Dubuque, IA: Wm. C. Brown.

Kleiman, G., & Schallert, D. L. (1978). Some things the reader needs to know that the listener doesn't. In P. D. Pearson & J. Hansen (Eds.), Reading: Disciplined inquiry in process and practice (pp. 138-142). Clemson, SC: National Reading Conference.

Kolers, P. A. (1970). Three stages of reading. In H. Levin & J. P. Williams (Eds.), Basic studies on reading (pp. 90-118). New York: Basic Books.

Krashen, S. D. (1982). Principles and practices in second language acquisition. Toronto: Pergamon.

Krashen, S. D. (1985). The input hypothesis: Issues and implications. Toronto: Longman.

Krashen, S. D., & Terrell, T. D. (1983). The natural approach: Language acquisition in the classroom. San Francisco: Alemany.

LaBerge, D., & Samuels, S. J. (1976). Toward a theory of automatic information processing in reading. In H. Singer & R. Ruddell (Eds.), Theoretical models and processes of reading (2nd ed.) (pp. 548-579). Newark, NJ: IRA.

Liberman, I. Y., & Shankweiler, D. (1979). Speech, the alphabet and teaching to read. In L. B. Resnick & P. A. Weaver (Eds.), Theory and practice of early reading. Hillsdale, NJ: Erlbaum.

MacGinitie, W. H., Kamons, J., Kowalski, R. L., MacGinitie, R. K., & Kowalski, R. L. (1980). Gates-MacGinitie reading tests Canadian edition teacher's manual, level A, forms 1, 2. Toronto: Nelson Canada.

Mattingly, I. G. (1972). Reading, the linguistic process, and linguistic awareness. In J. F. Kavanagh & I. G. Mattingly (Eds.), Language by ear and by eye (pp. 133-147). Cambridge, MA: MIT Press.

Mattingly, I. G. (1984). Reading, linguistic awareness, and language acquisition. In J. Downing & R. Valtin (Eds.), Language and communication: Vol. 17, Language awareness and learning to read (pp. 9-25). New York: Springer-Verlag.

Morais, J., Cary, L., Alegria, J., & Bertelson, P. (1979). Does awareness of speech as a sequence of phones arise spontaneously? Cognition, 7, 323-331.

Moskowitz, B. A. (1981). The acquisition of language. In V. Clark, P. Escholz, & A. Rosa (Eds.), Language: Introductory readings (3rd ed.) (pp. 77-106). New York: St. Martin's Press.

Olson, D. R. (1975). Review of "Toward a literate society". In J. B. Carroll & J. Chall (Eds.), The proceedings of the National Academy of Education (Vol. 2)

Routh, D. K., & Fox, B. (1984). Mm. . .is a little bit of May: Phonemes, reading, and spelling. In K. D. Gadow (Ed.), Advances in learning and behavioral disabilities (pp. 95-124). Greenwich, CT: Jai.

Rubin, A. (1978). A taxonomy of language experience. In P. D. Pearson & J. Hansen (Eds.) Reading: Disciplined inquiry in process and practice (pp. 143-147). Clemson, SC: National Reading Conference.

Ruddell, R. B., & Haggard, M. R. (1985). Oral and written language acquisition and the reading process. In H. Singer & R. B. Ruddell (Eds.), Theoretical models and processes of reading (3rd ed.) (pp. 63-80). Newark: IRA.

Rumelhart, D. E. (1977). Toward an interactive model of reading. In S. Dorsic (Ed.), Attention and performance VI (pp. 573-603). Hillsdale, NJ: Erlbaum.

Rumelhart, D. E. (1980). Schemata: The building blocks of cognition. In R. J. Spiro, B. C. Bruce, & W. F. Brewer (Eds.), Theoretical issues in reading comprehension (pp. 33-58). Hillside, NJ: Erlbaum.

Rumelhart, D. E., & Ortony, A. (1977). The representation of knowledge in memory. In R. C. Anderson, R. J. Spiro, & W. E. Montague (Eds.), Schooling and the acquisition of knowledge (pp. 99-135). Hillsdale, NJ: Erlbaum.

Samuels, S. J., & Schacter, S. W. (1978). Controversial issues in beginning reading instruction: Meaning versus subskill emphasis. In S. Pflaum-Connor (Ed.), Aspects of reading education (pp. 44-61). Berkeley: McCutchan.

Shuy, R. (1977). Linguistic theory: What can it say about reading. Newark: IRA.

Singer, H. (1985). The substrata-factor theory of reading. In H. Singer & R. B. Ruddell (Eds.), Theoretical models and processes of reading (3rd ed.) (pp. 630-660). Newark, NJ: IRA.

Smith, F. (1973). The learner and the language. Psycholinguistics and reading (pp. 138-146). Toronto: Holt, Rinehart and Winston.

Smith, F. (1982). Understanding reading. Toronto: Holt, Rinehart and Winston.

Smith, F., & Wilson, D. (1979). Pragmatics and communication. Modern linguistics: The results of Chomsky's revolution. (pp. 172-189). Bloomington, IN: Indiana University.

Smith, F. (1983). Essays into literacy. London: Heinemann.

Spearitt, D. (1972). Identification of subskills of reading comprehension by maximum likelihood factor analysis. Reading Research Quarterly, 8, 93-111.

Spiro, R. C. (1980). Constructive process in prose comprehension and recall. In R. J. Spiro, B. C. Bruce, & W. F. Brewer (Eds.), Theoretical issues in reading comprehension (pp. 245-278). Hillsdale, NJ: Erlbaum.

Stanovich, K. E. (1980). Toward an interactive-compensatory model of individual differences in the development of reading fluency. Reading Research Quarterly, 16, 32-71.

Thorndike, R. L. (1973-74). Reading as reasoning. Reading Research Quarterly, 9, 137-147.

Wilson, M. (1983). Developmental patterns of reading proficiency in adult ESL students: Implications for ESL classrooms. Urbana, IL. (ERIC Document Reproduction Service No. ED 248 709).

Appendix A

BASAL READER SKILLS BY GRADE
(Ekwall & Shanker, 1983)

1 Word Recognition Ability

Grade 1

1.01 Knowledge of letter names

Check:

Have the subject point to each letter as he or she names it. Note the letters correctly identified.

E D H i Y a l c N W

t K B g q p S v Q O

d b h F X A E I f B

j M r R L T z m n u

1.02 Recognition of high frequency sight words

Check:

Note the subject's pronunciation of the first 110 words in the Dolch list of 220 high frequency sight words.

1.03 Knowledge of consonant sound associations for single consonants

Check:

Point to the letter in the first column and have the subject say the name of that letter (not the sound it represents). Then, point to the word in the middle column and have the subject pronounce it. Finally, point to the nonsense word in the third column and have the subject pronounce it. Note the subject's ability to pronounce the nonsense word.

The subject should first be able to pronounce these test words:

in up am

Initial and ending consonant sounds

1.	p	am	pam
2.	n	up	nup
3.	s	up	sup
4.	t	up	tup
5.	r	in	rin
6.	m	in	min
7.	b	up	bup
8.	d	up	dup
9.	w	am	wam
10.	h	up	hup
11.	f	in	fin
12.	j	in	jin
13.	k	am	kam
14.	l	in	lin
15.	c	am	cam
16.	g	up	gup
17.	y	in	yin
18.	v	am	vam
19.	z	in	zin
20.	c	in	cin (sin)
21.	qu	am	quam

Ending consonant (x)

22.	m	ox	mox

1.04 Knowledge of the sounds of initial and ending consonant clusters

Check:

See instructions for 1.03

1.	pl	up	plup
2.	gl	am	glam
3.	fr	in	frin
4.	fl	am	flam
5.	st	up	stup
5.	bl	in	blin
7.	tr	in	trin
8.	gr	up	grup
9.	br	in	brin
10.	sh	up	shup
11.	th	up	thup
12.	wh	up	whup
13.	ch	am	cham

14.	dr	up	drup
15.	pr	am	pram
16.	sl	up	slup
17.	cl	in	clin
18.	sm	in	smin
19.	sk	am	skam
20.	cr	in	crin
21.	sp	am	spam

Ending consonant clusters (st, ld, nd, ng)

22.	st	bast
23.	ld	pold
24.	nd	gand
25.	ng	lang

1.05 Knowledge of vowel sounds

Check:

See instructions for 1.03

1.	a	pam
2.	i	rit
3.	a	nap
4.	o	sot
5.	u	tum
6.	a	sape
7.	i	tipe
8.	e	rete
9.	o	sote
10.	u	pune
11.	ay	tay
12.	ee	eem

1.06 Knowledge of affixes

Prefix a

Check:

Say to the subject: "I will read aloud the underlined word. I would like you to read aloud the word below the one I read." Note the subject's pronunciation of the word with the added beginning.

1. way / away

2. head / ahead

Suffixes (inflectional endings -s, -ed, -ing, -ly)

Check:

Say to the subject: "I will read aloud the underlined word. I would like you to read aloud the word(s) below the one I read." Note the subject's pronunciation of each word with an added ending.

work
1. works
2. worked
3. working

4. light / lightly

1.07 Contractions

Check:

Give the subject the following list of contractions. Note the subject's ability to (a) pronounce the contraction and (b) tell what two words each contraction stands for.

1. didn't
2. won't
3. can't
4. isn't
5. don't
6. I'll
7. let's
8. it's
9. that's
10. wasn't
11. hadn't
12. I'll
13. I'm
14. he's

Grade 2

1.08 Recognition of high frequency sight words

Check:

Note the subject's pronunciation of the second group of 110 words in the Dolch word list

1.09 Knowledge of the sounds of soft g and initial and ending consonant clusters

Check:

Note the subject's pronunciation of the nonsense words (see instructions in 1.03)

1.	g	in	gin (jin)
2.	sc	up	scup
3.	str	am	stram
4.	thr	up	thrup
5.	squ	am	squam
6.	sw	up	swup
7.	spr	am	spram
8.	tw	am	twam
9.	kn	up	knup
10.	wr	in	wrin
11.	scr	up	scrup
12.	sn	up	snup
13.	sch	am	scham
14.	spl	in	splin

Ending consonant clusters (nk, nt, mp, ft, mb, gh)

15.	nk	lank
16.	nt	gant
17.	mp	bamp
18.	ft	naft
19.	mb	camb
20.	gh	high

1.10 Knowledge of vowel sounds

Check:

Note the subject's pronunciation of the nonsense word (see instructions in 1.03)

1.	oo	oot (moon or book)
2.	oo	oot (moon or book)
3.	ea	eap (head or meat)
4.	ea	eam (head or meat)
5.	ai	ait

6.	oe	poe
7.	oa	oan
8.	ow	owd (cow or crow)
9.	ow	fow (cow or crow)
10.	or	orm
11.	ir	irt
12.	ur	urd
13.	aw	awp
14.	oi	doi
15.	ou	tou
16.	ar	arb
17.	oy	moy
18.	er	ert
19.	ew	bew
20.	au	dau

1.11 Knowledge of affixes

Prefixes (i.e., un-, re-)

Check:

Say to the subject: "I will read aloud the underlined word. I would like you to read aloud the words below the one I read." Note the subject's ability to pronounce each word with the added beginning.

	pack
1.	repack
2.	unpack

Suffixes (i.e., -est, -er, -y, -less)

Check:

Say to the subject: "I will read aloud the underlined word. I would like you to read aloud the words below the one I read." Note the subject's ability to pronounce each word with the added ending.

	light
1.	lightest
2.	lighter
	luck
3.	lucky
4.	luckless

1.12 Contractions

Check:

Note the subject's ability to (a) pronounce the contraction and (b) tell what two words each contraction stands for.

1. we'll
2. I've
3. he'll
4. hasn't
5. haven't
6. we're
7. you're
8. what's
9. there's
10. she's
11. they'd
12. she'll
13. here's
14. couldn't
15. they're
16. you'll
17. she'd
18. weren't
19. I'd
20. you've
21. you'd
22. we'd
23. anybody'd
24. there'll
25. we've
26. who'll
27. he'd
28. who'd
29. doesn't
30. where's
31. they've
32. they'll
33. aren't
34. wouldn't

1.13 Knowledge of possessives

Check:

Ask the subject what the apostrophe "s" shows in "Jim's, Mike's," and "Carol's"

Grade 3

1.14 Knowledge of beginning and ending consonant clusters

Check:

Note the subject's ability to pronounce the nonsense words (see instructions for 1.03)

1.	shr	up	shrup
2.	dw	in	dwin
3.	gn	up	gnup

Ending consonant cluster (lt)

4.	lt	polt

1.15 Knowledge of affixes

Prefixes (dis-, in-, per-, pre-, al-, be-, de-, con-)

Check:

Say to the subject: I will read aloud the underlined word. I would like you to read aloud the word below the one I read." Note the subject's ability to pronounce the word with the added beginning.

1. taste
   distaste

2. come
   income

3. form
   perform

4. cook
   precook

5. ways
   always

6. cause
   because

7. frost
   defrost

8. fine
   confine

Suffixes (-fully, -self, -en, -full, -ness, -ily, -ty, -ier, -some, -ish)

Check:

Say to the subject: I will read aloud the underlined word. I would like you to read aloud the word below the one I read." Note the subject's ability to pronounce the word with the added endings.

1. help
   helpfully

2. my
   myself

3. light
   lighten

4. care
   careful

5. full
   fullness

6. happy
   happily

7. haste
   hasty

8. happy
   happier

9. hand
   handsome

10. Dane
    Danish

1.16 Knowledge of syllabication

Check:

Note the subject's ability to decode the following nonsense words by appropriately blending word parts.

1. botnap
2. daggal
3. lador
4. mafel
5. nable
6. catgirl

Grade 4

1.17 Knowledge of structural analysis

Prefixes (im-, under-, mid-, for-, ex-, over-, ad-, sub-, photo-, en-, com-, pro-, non-, fore-, anti-, out-)

Check:

Say to the subject: I will read aloud the underlined word. I would like you to read aloud the word below the one I read." Note the subject's pronunciation of each word with the added ending.

1. polite
   impolite

2. way
   underway

3. day
   midday

4. bid
   forbid

5. act
   exact

6. hear
   overhear

7. just
   adjust

8. marine
   submarine

9. copy
   photocopy

10. close
    enclose

11. press
    compress

12. pose
    propose

13. stop
nonstop

14. head
forehead

15. freeze
antifreeze

16. side
outside

Suffixes (-ern, -ite, -ion, -able, -ment, -ology, -ward, -al, -th, -ious, -ese, -hood, -ship, -ist, -ive, -age, -ation, -ant, -ian, -ent)

Check:

Say to the subject: I will read aloud the underlined word. I would like you to read aloud the word below the one I read." Note the subject's ability to pronounce the word with the added ending.

1. mod
modern

2. favor
favorite

3. act
action

4. believe
believable

5. apart
apartment

6. astro
astrology

7. for
forward

8. pet
petal

9. ten
tenth

10. space
spacious

11. China
Chinese

12. child
childhood

13. hard
hardship

14. organ
organist

15. relate
relative

16. band
bandage

17. celebrate
celebration

18. attend
attendant

19. library
librarian

20. differ
different

1.18 Knowledge of syllabication

Check:

Note the subject's ability to decode the following nonsense words by appropriately blending word parts.

1. distendable
2. discorpment
3. conformate
4. premedine
5. rebaseness
6. complinote

Grade 5

1.19 Knowledge of affixes

Prefixes (auto-, mis-, trans-, inter-, self-, counter-, ab-)

Check:

Say to the subject: I will read aloud the underlined word. I would like you to read aloud the word below the one I read." Note the subject's ability to pronounce the word with the added beginning.

1. graph
   autograph

2. place
   misplace

3. form
   transform

4. national
   international

5. serve
   selfserve

6. phone
   telephone

7. act
   counteract

8. normal
   abnormal

Suffixes (-ance, -ical, -eer, -ery, -most, -wise, -ary)

Check:

Say to the subject: I will read aloud the underlined word. I would like you to read aloud the word below the one I read." Note the subject's ability to pronounce the word with the added ending.

1. remember
   remembrance

2. music
musical

3. mountain
mountaineer

4. fish
fishery

5. upper
uppermost

6. wise
clockwise

7. diction
dictionary

2 Understanding the Text

Word Meaning

Grade 1

2.01 Able to use context clues

Check:

First, say to the subject: "Please read this story [from the Basic Reading Inventory, Form C (Johns, 1978), Level 1] silently. Some of the words have been left out. X's replace the letters of the missing words. As you read the story try to think of the words which belong in the story where the x's are." Second, have the subject read the story aloud and note the words inserted in the blanks.

"See xxx (the) birds," xxxx (said) Jim.
"They are looking in the snow. They want food."
"The xxxx (snow) is deep," said Janet. "xxxx (They) cannot find xxxx (food)."
Jim said, "Let's help xxxx (them)."

2.02 Vocabulary knowledge

Check:

Note the subject's score on 10 of 45 questions (i.e., questions 1, 5, 10, 15, 20, 25, 30, 35, 40, 45) from the Gates-MacGinitie (1980) Vocabulary Test, Form 2, Level A (for Grades 1.5 to 1.9).

Grade 2

2.03 Able to use context clues

Check:

First, say to the subject: "Please read this story [from the Basic Reading Inventory, Form B (Johns, 1978), Level 2] silently. Some of the words have been left out. X's replace the letters of the missing words. As you read the story try to think of the words which belong in the story where the x's are." Second, have the subject read the story aloud and note the words inserted in the blanks.

A spider sat down by Little Miss Muffet. xxx (She) was afraid of it. She should not have been xxxxxx (afraid). The xxxxxx (spider) would not hurt xxx (her). Most spiders xxx (are) friendly. They catch insects in their xxxx (webs).

2.04 Knowledge of prefix meanings (re-, un-)

Check:

Say to the subject: "The word 'pack' means to collect things together as in 'to pack a suitcase with clothing'. What do these words mean":

1. repack
2. unpack

2.05 Vocabulary knowledge

Check:

Note the subject's score on 10 of 45 questions (i.e., questions 1, 5, 10, 15, 20, 25, 30, 35, 40, 45) from the Gates-MacGinitie (1980) Vocabulary Test, Form 2, Level B (for Grade 2).

Grade 3

2.06 Able to use context clues

Check:

First, say to the subject: "Please read this story [from the Basic Reading Inventory, Form B (Johns, 1978), Level 4] silently. Some of the words have been left out. X's replace the letters of the missing words. As you read the story try to think of the words which belong in the story where the x's are." Second, have the subject read the story aloud and note the words inserted in the blanks.

Sue really wanted a dog. One xxx (day) she xxxx (went) with her parents to the xxx (pet) shop. They looked at the fish, turtles, canaries, cats and, of course, xxxx (dogs). Sue and her xxxxxxx (parents) both saw one puppy xxxxx (which) acted very lively.

2.07 Knowledge of prefix meanings (pre-, in-, dis-, de-)

Check:

Say to the subject:

"The word 'arrange' means to plan as in 'to arrange to meet someone'. What does 'prearrange' mean?"

"The word 'capable' means able to do something as in 'capable of doing the job'. What does 'incapable' mean?"

"The word 'part' means to separate as in 'I part my hair in the middle'. What does 'depart' mean?"

"The word 'similar' means like something as in 'the shoes are a similar color'. What does 'dissimilar mean?

2.08 Vocabulary knowledge

Check:

Note the subject's score on 10 of 45 questions (i.e., questions 1, 5, 15, 20, 25, 30, 35, 40, 45) from the Gates-MacGinitie (1980) Vocabulary Test, Form 2, Level C (for Grade 3).

Grade 4

1.09 Able to use context clues

Check:

First, say to the subject: "Please read this story [from the Basic Reading Inventory, Form C (Johns, 1978), Level 4] silently. Some of the words have been left out. X's replace the letters of the missing words. As you read the story try to think of the words which belong in the story where the x's are." Second, have the subject read the story aloud and note the words inserted in the blanks.

The summer xxx (had) been a dry one, unusual xxx (for) this province. Trees and foliage of the xxxxxx (forest) crackled and died. One xxx (day) it began xx (to) rain. A xxx (bad) storm descended upon the forest.

2.10 Knowledge of prefix meanings (sub-, en-)

Check:

Say to the subject:

"The word 'marine' means ocean. What does 'submarine' mean?

"The word 'rich' means valuable or wealthy as in 'carrots are rich in vitamins'. What does 'enrich' mean?

2.11 Vocabulary knowledge

Check:

Note the subject's score on 10 of 45 questions (i.e., questions 2, 3, 5, 6, 8, 9, 11, 12, 14, 15) from the Gates-MacGinitie (1980) Vocabulary Test, Form 2, Level D (for Grades 4 to 6).

Grade 5

2.12 Able to use context clues

First, say to the subject: "Please read this story [from the Basic Reading Inventory, Form B (Johns, 1978), Level 5] silently. Some of the words have been left out. X's replace the letters of the missing words. As you read the story try to think of the words which belong in the story where the x's are." Second, have the subject read the story aloud and note the words inserted in the blanks.

Most airplanes are driven through the xxx (air) by a jet xxxxxx (engine) that powers the xxxxx (plane). Older planes were driven through xxx (the) air by the use xx (of) propellers. The first thing you will probably notice about xx (an) airplane are the wings.

2.13 Vocabulary knowledge

Check:

Note the subject's score on 10 of 45 questions (i.e., questions 17, 18, 20, 21, 23, 24, 26, 27, 29, 30) from the Gates-MacGinitie (1980) Vocabulary Test, Form 2, Level D (for Grades 4 to 6).

Grade 6

2.14 Able to use context clues

Check:

First, say to the subject: "Please read this story [from the Basic Reading Inventory, Form C (Johns, 1978), Level 6] silently. Some of the words have been left out. X's replace the letters of the missing words. As you read the story try to think of the words which belong in the story where the x's are." Second, have the subject read the story aloud and note the words inserted in the blanks.

One of the most amazing flowers found xx (in) the west xx (is) the sunflower. Legend states that the xxxxxx (flower) got its xxxx (name) from its strange habit of turning its head in order to xxxx (face) the xxx (sun) all day.

2.15 Vocabulary knowledge

Check:

Note the subject's score on 10 of 45 questions (questions 35-45) from the Gates-MacGinitie (1980) Vocabulary Test, Form 2, Level D (for Grades 4-6).

Grade 7

2.16 Able to use context clues.

Check:

First, say to the subject: "Please read this story [from the Basic Reading Inventory, Form C (Johns, 1978), Level 7] silently. Some of the words have been left out. X's replace the letters of the missing words. As you read the story try to think of the words which belong in the story where the x's are." Second, have the subject read the story aloud and note the words inserted in the blanks.

Indians worshiped power in things xx (of) nature such as xxx (the) stars, xxxx (moon), and the sun. At certain times during the xxxx (year) they would hold festivals xx (in) honor of this power that xxxx (they) named the Great Spirit.

2.17 Vocabulary knowledge.

Check:

Note the subject's score on 10 of 45 questions (i.e., questions 2, 3, 5, 6, 8, 9, 11, 12, 14, 15) from the Gates-MacGinitie (1980) Vocabulary Test, Form 2, Level E (for Grades 7-9).

Grade 8

2.18 Able to use context clues.

Check:

First, say to the subject: "Please read this story [from the Basic Reading Inventory, Form C (Johns, 1978), Level 8] silently. Some of the words have been left out. X's replace the letters of the missing words. As you read the story try to think of the words which belong in the story where the x's are." Second, have the subject read the story aloud and note the words inserted in the blanks.

Besides using plants and animals for food, man uses the hides of xxxxxxx (animals) for shoes, and the wood from xxxxx (trees) to build xxxxxx (houses), the fiber xxxx (from) the cotton xxxxx (plant) to make his shirts, the wool from xxxxx (sheep) to make his suits and coats.

2.19 Vocabulary knowledge

Check:

Note the subject's score on 10 of 45 questions (i.e., questions 17, 18, 20, 21, 23, 24, 26, 27, 29, 30) from the Gates-MacGinitie (1980) Vocabulary Test, Form 2, Level E (for Grades 7-9).

Grade 9

2.20 Able to use context clues

Check:

First, say to the subject: "Please read this story [from the Advanced Reading Inventory, Form B (Johns, 1978), Level 3] silently. Some of the words have been left out. X's replace the letters of the missing words. As you read the story try to think of the words which belong in the story where the x's are." Second, have the subject read the story aloud and note the words inserted in the blanks.

The electronic synthesizer xxx (has) a keyboard xxxx (like) a piano's. Otherwise, one might xxxxx (never) guess that it has anything to do with xxxxx (music). It appears to be a computer or a xxxxxxxxx (telephone) switchboard, for it is a thing of switches, flashing xxxxxx (lights), and dangling wires.

2.21 Vocabulary knowledge

Check:

Note the subject's score on 10 of 45 questions (i.e., questions 32, 33, 35, 36, 38, 39, 41, 42, 44, 45) from the Gates-MacGinitie (1980) Vocabulary Test, Form 2, Level E (for Grades 7-9).

Text Meaning

Grade 1

2.22 Check:

Note the subject's score on 10 of 40 questions (i.e., questions 4, 8, 12, 16, 20, 24, 28, 32, 36, 40) from the Gates-MacGinitie (1980) Comprehension Test, Form 2, Level A (for Grade 1.5 to 1.8).

Grade 2

2.23 Check:

Note the subject's score on 10 of 40 questions (i.e., questions 4, 8, 12, 16, 20, 24, 28, 32, 36, 40) from the Gates-MacGinitie (1980) Comprehension Test, Form 2, Level B (for Grade 2).

Grade 3

2.24 Check:

Note the subject's score on 5 of 22 paragraphs (i.e., paragraphs 6, 10, 14, 18, 22) from the Gates-MacGinitie (1980) Comprehension Test, Form 2, Level C (for Grade 3).

Grade 4

2.25 Check:

Note the subject's score on 10 of 43 questions (i.e., questions 1 to 12) from the Gates-MacGinitie (1980) Comprehension Test, Form 2, Level D (for Grades 4-6).

Grade 5

2.26 Check:

Note the subject's score on 10 of 43 questions (i.e., questions 21 to 30) from the Gates-MacGinitie (1980) Comprehension Test, Form 2, Level D (for Grades 4-6).

Grade 6

Check:

Note the subject's score on 10 of 43 questions (i.e., questions 34 to 43) from the Gates-MacGinitie (1980) Comprehension Test, Form 2, Level D (for Grades 4-6).

Grade 7

2.28 Check:

Note the subject's score on 10 of 43 questions (i.e., questions 1 to 10) from the Gates-MacGinitie (1980) Comprehension Test, Form 2, Level E (for Grades 7-9).

Grade 8

2.29 Check:

Note the subject's score on 10 of 43 questions (i.e., questions 11 to 20) from teh Gates-MacGinitie (1980) Comprehension Test, Form 2, Level E (for Grades 7-9).

Grade 9

2.30 Check:

Note the subject's score on 10 of 43 questions (i.e., questions 34 to 43) from the Gates-MacGinitie (1980) Comprehension Test, Form 2, Level E (for Grades 7-9).

Appendix B

ESL LITERACY COURSE OBJECTIVES

ESL Literacy students are usually able to understand spoken English well and to speak quite well. Through lack of contact with written English, students need to improve spelling, reading, and writing skills for personal, social, or employment reasons. Admission to this course is by a separate assessment procedure.

Course Objectives: COMMUNICATION SKILLS

Listening Comprehension:
- -to be able to understand native speakers in a social or work-related context;

Speaking Ability:
- -to be able to speak with ease in a social or work-related context;

Reading Skills:
- -to be able to read material equivalent in difficulty to that found at the Grade 6/7 level for native speakers;
- -to develop vocabulary skills to the equivalent of Grade 6/7 level.

Writing:
- -to be able to write short notes, letters, reports, applications, etc., appropriate to adult needs.
- -to become familiar with the rules of spelling, punctuation, and capitalization acceptable in standard English

Grammar:
- -a remedial survey of English grammar points for those who have been out of school for a number of years, with emphasis on ESL problems, e.g. use of prepositions, tenses, articles.

Source: English as a Second Language Literacy Course Outline, Camosun College, Victoria, B.C., 1985.

VITA

Surname: TAYLOR Given Names: DAVID ROBERT

Place of Birth: Victoria, B.C. Date of Birth: December 30, 1955

Educational Institutions Attended, with Dates of Entering and Leaving:

CAMOSUN COLLEGE, VICTORIA, B.C.	1975 to 1976
UNIVERSITY OF VICTORIA, B.C. (part time)	1976 to 1980
UNIVERSITY OF VICTORIA, B.C.	1984 to 1986
UNIVERSITY OF VICTORIA, B.C.	1988 to 1989

Degrees, Diplomas, Etc., Awarded, with Dates and Names of Institutions:

B.A.	1980	University of Victoria, B.C.

Honors and Awards:

Government of B.C. Scholarship Award, 1973

Publications:

PARTIAL COPYRIGHT LICENSE

I hereby grant the right to lend my thesis (dissertation if appropriate) (the title of which is shown below) to users of the University of Victoria Library, and to make single copies only for such users or in response to a request from the Library of any other university, or similar institution, on its behalf or for one of its users. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by me or a member of the University designated by me. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Title of Thesis/Dissertation

THE READING SKILLS OF ADULT LEARNERS OF ENGLISH AS A SECOND LANGUAGE

Author [redacted]

DAVID ROBERT TAYLOR
Name

April 28, 1989
Date

ISBN 0-315-53727-2