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Readability: A Study of Three Selected Stories from a Third Grade Whole Language Basal

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**READABILITY: A STUDY OF THREE
SELECTED STORIES FROM A THIRD
GRADE WHOLE LANGUAGE BASAL**

THESIS

Submitted to the Graduate Committee of
the Department of Education and Human Development
State University of New York
College at Brockport
in Partial Fulfillment of the
Requirements for the Degree of
Master of Science in Education

By

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I would like to dedicate this thesis to my husband , Marty, who has been very patient and supportive the past six years. Also, to my daughter, Carly, who was born in the midst of things.

Special thanks to Dr. Begy for his help and guidance.

Abstract

The purpose of this study was to determine whether the readability levels of three third grade stories, that are found within a reading text, fall below or above the publisher's indicated readability level.

The sample group consisted of 78 third grade children. They were assessed through the means of cloze tests. There were three different tests, each one containing a passage from the story in the text. Over the Mountain from the Impressions series was analyzed. Two readability formulas, the Spache and the Lorge, were utilized in determining the readability levels of the stories independently of the publisher. The data indicated a significantly higher readability level than the one assigned by the publisher.

This study suggests that teachers should be cautious when choosing reading materials for their students. They should not assume that the readability level that is assigned by the publisher is accurate throughout the textbook. Some "collections of literature" that are found in basals may contain material that is at the students' frustration level more often than not.

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Chapter I

Statement of the Problem

Purpose of the Study

The purpose of this study was to determine if the readability levels of three third grade stories, that are found within a reading text, fall below or above the publisher's assigned readability level.

Questions to be Answered

1. What is the readability of three selected stories found in the third grade Impressions book?
2. How do the results of the Spache and Lorge formulas and the cloze tests compare?

It is hoped that the results of this study may benefit teachers who use these particular materials. Furthermore, awareness of readability levels and their importance may be increased, which may aid them in their classroom instruction.

Definition of Terms

1. Readability “readability is a quality attributed to the printed matter that is usually expressed by the minimum academic functioning level that is required in order to comprehend the text” (Beals, 1989, p.24).

2. Whole Language A philosophy of language learning which when incorporated into a reading program is not skills based, but literature based. The philosophy suggests that all the elements of a language be integrated into the program.

3. Cloze Procedure “A technique of supplying the appropriate word for each omission that has been systematically deleted from the passage a specified intervals (Payne, 1979).”

4. Independent Reading Level The level at which one reads with ease and without assistance. Fifty-five percent or more exact replacement of words on cloze tests.

5. Instructional Reading Level The level where reading is at an adequate level, but the reader may need some guidance. Forty-five to fifty-four percent exact replacement of words on cloze tests.

6. Frustration Reading Level The level where reading take place with great difficulty. Below 45% exact replacement of words on cloze tests.

Limitations of the Study

There are several limitations to this study that need to be considered. One limitation is the use of only one group in this study. The subjects that were administered the cloze tests are all from the same socioeconomic group. The group comprised of middle class suburban children. If the cloze were administered to another group type, the scores may have been considerably lower or higher.

Another limitation refers to the maturation of the group in the study. The selection of these children was based on reading grade equivalent scores that were from the month of May of second grade.

The cloze was not administered until December of grade three. Some of the children may have practiced this type of test with their teachers before they completed the cloze for the study, therefore scoring higher than expected.

Finally, untimed reading test scores do not always mean the child necessarily has the background or skills to handle the usual reading materials of the grade equivalent score. Even though the grade equivalent scores showed grade three or above, some of the subjects may not have been ready to complete the cloze tests as expected in the study. Therefore, the cloze results may have biased tendencies.

Summary

Teachers are often concerned that their students may either suffer from frustration or boredom if the readability levels are not appropriate (Beals, 1989). The variety of classroom materials teachers use during the course of one year can be overwhelming for the student as well as for the teachers. It has been shown that students make more gains when reading at the appropriate level.

This study examined the readability of three stories of one reading series to investigate the various levels that can be found in classroom materials. The sample comprised 78 third grade children. They were administered cloze tests as a means of measuring

readability. These scores were then compared to two readability formulas, the Lorge and the Spache.

Chapter II

Review of Related Literature

The primary purpose of this study was to determine whether the readability levels of three third grade stories, that were found within a reading text, fall below or above the publisher's indicated readability level. The study determined the accuracy of the publisher's readability level when it was compared to two readability measures and the cloze procedure.

A review of the literature relevant to this study was divided into three categories: Determining Readability through the Use of the Cloze Procedure, Reliability of Readability Formulas and Assessing Readability in the Classroom.

Determining Readability

Through

The Use of the Cloze

Procedure

One method for determining readability is the cloze procedure. A description of the cloze is given by Ashby-Davis (1985):

Strict cloze is the name given to the original mode developed by Taylor in 1953. A text usually 250 words in length is changed by omitting words at regular n intervals. Fifth, eighth and tenth word omissions are common and the first and last sentences of the passage are not altered (p. 586).

Bormuth (1968) was in favor of the cloze procedure and he stated:

The cloze procedure has received considerable attention since it was introduced as an instrument to measure readability. Researchers investigating the validity and reliability of this tool have concluded that the cloze and conventional reading tests seem to measure the same process. Cloze scores were correlated with scores on conventional reading tests seem to measure the same process. Cloze scores were correlated with scores on conventional multiple-choice comprehension tests and criteria were established to determine independent, instructional and frustration levels (p. 191).

Content area reading is often an area where the research has been frequently applied. In a study by Williams and Yore (1985), the cloze procedure was used to demonstrate how fifth grade science textbooks were more difficult for that level than either grade four or grade six materials were for students at each respective level.

Nine passages were randomly selected and transformed into traditional cloze tests using procedures outlined by Taylor (1953).

In eight of nine cases, the science text materials were classified at or near frustration level of readability. This study proved the usefulness of the cloze when determining readability levels of textbooks.

Chance (1985) utilized the cloze in his readability study of secondary content materials. He found that it can benefit the classroom teacher in more ways than one. He also emphasized that the cloze is a quick and reliable assessment. He stated:

It can be a valuable instrument for every classroom teacher in assessing the student's ability to read specific subject matter material. In addition, a closer look at student errors may yield important clues to how the student comprehends subject matter material. These errors can guide teachers to providing important prereading information to students before a reading assignment is given (p. 693).

When cloze procedures in readability studies were utilized by Chance (1985), the students had to fill in the exact words of the author's original text. An introduction was given before the selection, without missing words, so that the students had some content before filling in the blanks. Scoring was based on whether the students replaced the exact word used in the original text.

Culhane (1970) had observed that it was possible to use synonyms when filling in the blanks, but this would make scoring cumbersome, and lead to arbitrary decisions regarding the worth of a synonym

replacement. Synonyms could slow the procedure down and also make it less reliable.

In a recent study when cloze was used in judging instructional materials, Rush (1985) found that the performance of several average readers from a group indicated how reasonable the text will be to the group as a whole. This performance must be interpreted carefully when passages are taken from instructional materials. Rush stated:

Because teaching of new vocabulary is assumed in such materials, readers will naturally fail to replace deleted words which have not been taught, thus making the instructional materials seem too difficult. Prior knowledge or the lack of it will affect reader performance on cloze tasks as much as on other comprehension tests. Readers ignorant of the passage's vocabulary cannot replace those deleted words (p. 280-281).

Therefore, students should not be expected to read most materials independently that are labeled "appropriate" for their grade level. Teachers should carefully choose literature and introduce vocabulary where they feel it is needed.

The cloze was also used in a study by DeSanti(1989) where a semantically and syntactically sensitive scoring system was used. A variety of passages were used for various grade levels. The results indicated that the scoring system possesses acceptable concurrent and

predictive validity for use with a variety of passages and grade levels. The readers' abilities to complete a cloze deletion requires both vocabulary knowledge and an ability to comprehend the text beyond the meaning of individual words.

Sampson and Briggs (1983) stated:

Scoring techniques which are sensitive to semantic relationships can be more accurate than the exact technique because some readers supply language more sophisticated than that employed by the author and taking into account the quality of responses can help teachers to make the most appropriate instructional decisions (p. 179).

Chall (1958) has suggested there are four major factors that account for comprehension difficulty: 1. vocabulary load, 2. sentence structure, 3. idea density and 4. human interest. Vocabulary is measured most accurately by the number of words in a passage not on a given list of frequent words.

The most serious problem encountered in earlier research was the measurement of comprehension difficulty of passages. The best practice available was to give subjects multiple choice tests over the passages. Lorge (1939) criticized this because it was uncertain whether the difficulty of language in the passage itself was being measured.

The cloze test procedure first conceived by Taylor (1953) was the crucial factor in revitalizing this research. It made possible the accurate measurement of the comprehension difficulty of passages. Ramanauskas (1972) stated that:

Taylor (1953) described cloze as a radical departure from element counting readability devices. He wrote that typical readability formulas do not take into account such factors as unusual uses of common words, awkward and confusing sentence structure or pronouns without definite antecedents (p. 80).

Some researchers have found the cloze was a highly reliable tool. Feely (1975) used the cloze to determine the difficulty of an eighth grade American history book. He believed it is best to test the children who will be using the specific materials. This would make good sense. Teachers can then reassess their materials from year to year to properly meet their students' needs.

Reliability of Readability Formulas

Klare (1974-1975) stated:

One of the problems in public education and mass communication is how to tell whether a particular piece of writing is likely to be readable to a particular group of readers. Two major solutions are possible:

measuring and predicting readability. Measuring, by judgements or tests, involves using readers. Predicting by readability formulas, does not involve readers, but instead uses counts of language elements in the piece of writing.

According to Lorge (1944):

Research in readability originated in the desire to grade textbooks and other materials for use in the elementary grades. Subsequently, the research activities were extended not only to demonstrate the lack of adequate reading materials for adults, but also to suggest how more adequate materials might be prepared (p.406).

Feely (1975) believed that teachers need to determine whether materials match students' reading levels. He states:

Many teachers have found that the range of reading levels in their classes is too diverse for any one reading material. Unfortunately, many commercial publishers are less than reliable in their grade level recommendations (p. 251).

In a study by Fitzgerald (1981), where readability of workbooks was estimated, the emphasis was on sample size. Fitzgerald agreed with Fry's recommendation [that if a larger variability is found among the first three samples, several more samples should be added] and is common practice based on the observation that the

standard error of any measurement generally decreases as sample size increases. The purpose of doing readabilities is not to compare one formula with another, but to get at the “true” readability of the book and then compare formulas for usefulness.

There are several readability formulas that are relied upon frequently. Readability formulas cover the linguistic characteristics that are used in determining readability. Lorge, for example, considers average sentence length, prepositional phrases and the number of hard words (Guidry and Knight, p. 553). Spache and Dale-Chall use sentence length (syntactic variable) and numbers of “hard” words (semantic variable) (Rush, 1985, p. 275).

The Spache formula is meant for use in primary grades only. The Spache claims to be very accurate because it was specifically designed for primary materials. It’s accuracy claims to be within 3.3 months of the estimated difficulty.

Spache (1953) believed that vocabulary load was the most important factor in reading difficulty. Apparently, editors of materials for primary reading materials exercise more control over sentence length than over the introduction of hard words.

The Lorge formula was another readability formula that has been a reliable tool. It was designed to cover grades three through twelve and was perhaps the first of the modern easy-to-use formulas.

In defense of readability formulas and their usefulness Fry (1989) states:

In the first place, if formula critics and misusers would only read the formula inputs accurately, they would find that to make writing easier to read, the average sentence length should be shorter. The term *average* implies that some sentences will be short, and some will be longer. Both common sense and research reaffirm that some sentences need to be longer, but many can be improved by being made shorter (p.192).

Fry (1989) believes that readability formulas are not “write-ability” formulas. Writers should not adjust their writing and chop sentences in half and plug in any sort of old short word to try to lower the readability formula score. This is the most common misuse of formulas. Vocabulary selection can be improved by using a frequency list or one based on high frequency studies. Readability formulas are not a writer’s guide.

As Klare (1984) has stated, their prediction ability is at least as good as reading tests, IQ tests, or most other psycho-educational measures.

Readability formulas state that in general, on the average, the two inputs of sentence length and word difficulty accurately predict how easily a given passage will be understood by the average reader (Fry, 1989).

Assessing Readability in the Classroom

If the picture of whole language is in focus, then readability should be a part of the foreground and not the background. All students should have the opportunity to learn to read with ease. If materials are too difficult then it can hinder a child's learning process.

One goal of any reading instruction should be that children become efficient at constructing meaning from text. The research of Stahl and Miller (1989) showed that whole language approaches may have an important function early in the process of learning to read, but as the child's needs shift, they become less effective. Stahl and Miller (1989) stated:

Whole language approaches need to stress that learning to read helps one communicate and it needs to be learned by children early, but once learned, children need to be able to decode written language fluently and automatically in order to be able to use reading for that purpose (p. 94)

Readability in the United Kingdom (Harrison, 1989) discussed how formal linguistic analysis of prose difficulty is connected with readability. A recent book by Perera (1984) titled *Children's Writing and Reading - Analyzing Classroom Language*, includes a full account of problems in comprehension at the sentence, clause

and phrase level, together with many examples of how authors unintentionally produce “inconsiderate” textbooks.

Perera points out, for example, that there are some constructions that children acquire later in their linguistic development; if authors use these, many children will find them difficult to understand (Harrison, 1986, p. 525).

Many teachers now have the freedom to choose their own materials for reading. Some are leaning towards basals that contain a collection of literature rather than excerpts from novels or popular picture books. The problem is that teachers are still uncertain of how to go about choosing appropriate materials. They very often choose materials that are too difficult for most of their students.

As Fraatz (1987) notes, teachers involved in reading instruction face the “problem of professional uncertainty”. Despite decades of research and reflection, no one is sure exactly how children learn to read.

Shannon (1989) reflected on the importance of approaching the use of basals in current reading programs. A growing number of teachers are finding themselves in a state of transition as they move away from the basal in favor of a theory based whole language curriculum.

Holland and Hall (1989) stated:

The whole language approach has recently been touted as an alternative to basal reading programs. The whole language approach to teaching reading is a relatively new concept in which language is kept whole and not broken down into fragmented parts (p. 325).

Summary

No matter the approach, teachers still need to keep readability in mind. In order for students to feel successful, they need to be able to read more fluently. Basals are becoming more interesting, are improving and are more relevant to the needs of the students. Readability of these fine materials must still be taken into account.

Harste (1989) displayed in a study that what teachers believe and the environments they create make the difference. If they teach phonics, children do well on phonics tests. Children “game” their way into literacy. What they do is not governed by a sense of what it means to be literate, but how to survive in the contexts in which they find themselves.

Chapter III

Procedure

Introduction

The purpose of this study was to determine if the readability levels of three third grade stories, that are found within a reading text, fall below or above the publisher's indicated readability level. Three cloze tests, which consisted of passages from the basal, were administered to the students. The readability formulas were also applied to the passages to calculate the readability indices of each. These data were analyzed to see if the different measures produced similar results.

Null Hypothesis

1. There will be no significant difference between the publisher's indicated readability level and the readability indices that were established with the Spache and Lorge formulas.
2. There will be no significant difference between the publisher's indicated readability level and the readability level that is determined with the cloze procedure.
3. There will be no significant difference between the cloze test results and the Spache and Lorge readability formula results.

Methodology

The subjects for this study consisted of 78 third grade students from an elementary school in Greece, N.Y. The students were chosen based on their California Achievement Test scores. Their grade equivalents ranged from 3.0 - 7.0. No students who scored below 3.0 were used. Students who were able to read above the third grade level were included in the study to determine if the material was too difficult for them also.

The book, Over the Mountain, from the Impressions series was used in this study. It is considered the third grade (3¹) reader. The stories that were used contain different themes. The length of the stories ranged from 1,200 to 2,000 words long.

These particular stories were chosen because they coincided with the teachers' seasonal and curriculum plans. They were also chosen based on their degree of vocabulary difficulty. Several of the words were not found on the Dale List of seven hundred and sixty nine Easy Words.

Some of the students were presented with the cloze tests as "pre-reading" activities. Others were just administered as "cold" cloze tests. The untimed cloze tests were administered in December 1990. The level of material was then determined by recording the number of blanks that were filled in correctly using the author's exact words. The criteria for determining the reading levels were as follows: fifty-five percent or more blanks filled in correctly determines the reader as reading on the independent level. Forty-five percent to fifty-four percent blanks filled in correctly determines the reader as reading on the instructional level. Below forty-five percent of the blanks filled in correctly determine that the reader is at his/her frustration level.

The readability formulas were then employed to determine any significant differences between each other and the cloze. The Spache formula structure is: $\text{Grade Level} = 0.141X_1 + 0.086X_2 + 0.839$, X_1

= average sentence length, and X_2 = number of words outside the Dale list of 769 Easy Words. The Lorge formula structure is: Grade Level = $0.06X_1 + 9.55X_2 + 10.43X_3 + 1.9892$.

The results of each of the formulas were recorded on worksheets and compared to each other and the cloze. The results were also compared to the students' grade equivalents. The grade equivalents were a contributing factor when the difficulty of the material was being analyzed.

The data were displayed on graphs to demonstrate how the results closely coincide with each other and to demonstrate how the publisher's indicated readability level may need to be observed more closely.

Summary

In summary, this study was conducted in order to analyze the indicated readability levels of three stories within a third grade whole language basal. Three different measures, were analyzed, Spache, Lorge and the cloze, were analyzed. The results were then compared to the readability level that was established by the publisher.

Chapter IV

Analysis of the Data

Purpose

The purpose of this study was to determine if the readability levels of three third grade stories, that are found within a reading text, fall below or above the publisher's readability level. This study focused on determining the readability levels through the use of readability formulas and the cloze procedure and then comparing all the findings.

Analysis of the Spache Formula Results

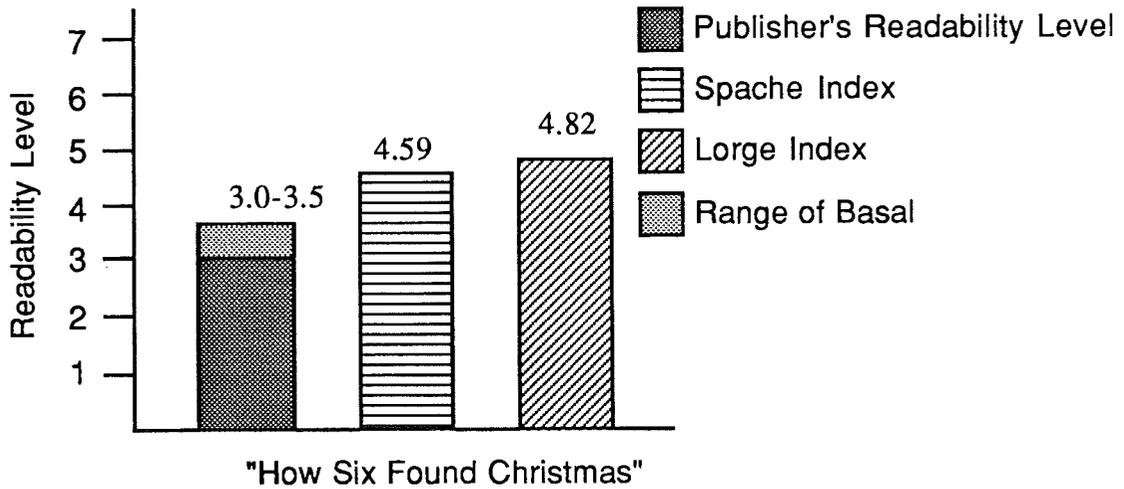
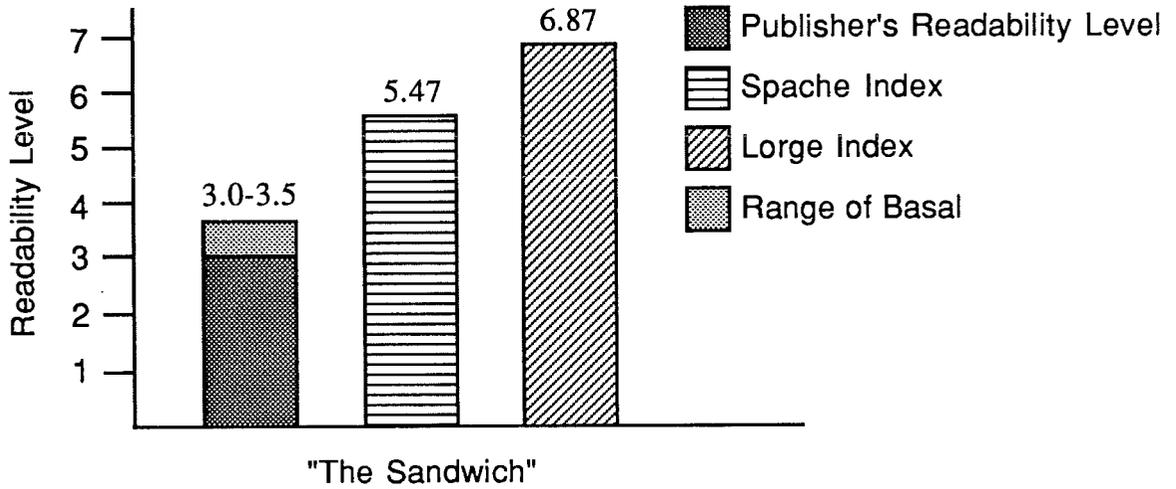
The Spache formula was applied to all three stories and the results showed that two of the stories were well above third grade level. “The Sandwich” had the highest readability index of 5.47, “How Six Found Christmas” had the second highest readability index of 4.59 and “The Arctic” only proved to be as a mid-third grade level scoring 3.48. It is important to note that these stories were not found in this order in the book. The Impressions series is a collection of literature that may have various readability levels. Teachers do not necessarily have students read this book from front to back as they would in a structured skills-based basal series. They do need to be aware of the various levels that may be found within this text. This formula showed the various levels that may exist throughout the book.

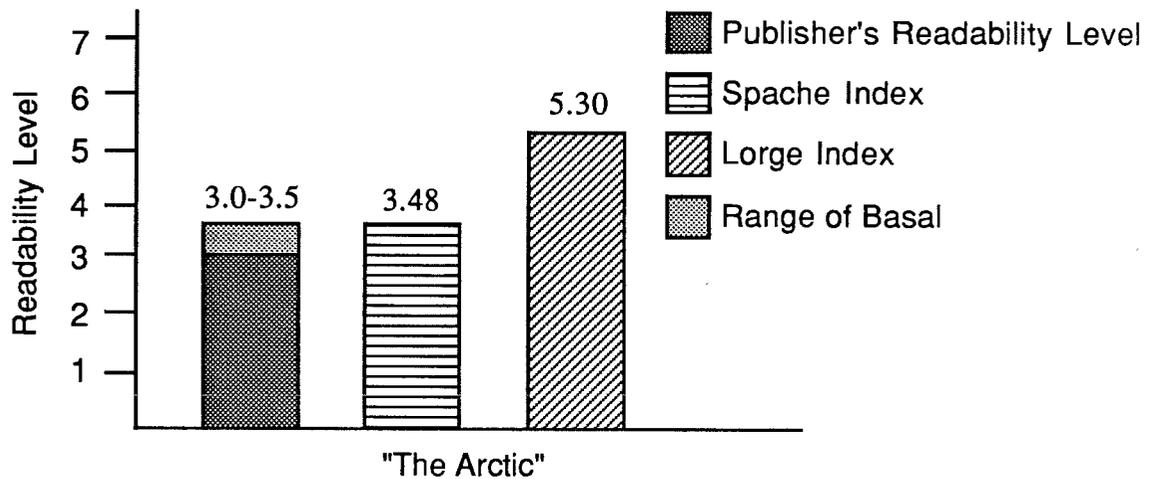
Analysis of the Lorge Formula Results

The Lorge readability formula was also applied to the selected stories, only this time **all** of the stories were well above third grade level. “The Sandwich” had a 6.87 readability index. This story had many proper nouns that were not found on the Dale List of 769 Easy Words. This story had twenty five “hard words” which raises the readability level considerably. The words may not be difficult once they are introduced by the teacher, but when read at an independent level they may have an impact on the student. One may assume the material is at the appropriate level for a third grade student and assign it to be read independently. The results of this formula displayed a higher index than the publisher’s readability level and teachers need to be aware of this. The story “How Six Found Christmas” had a readability index of 4.82 and “The Arctic” had a 5.3. These two stories did not have a large amount of proper nouns as the first story, “The Sandwich.” Therefore, the scores were lower depending on the number of “hard words” that were found in the passages.

Table I

Comparison of the Spache, the Lorge and Publisher's Readability Levels





Analysis of the Cloze Results

A total of seventy-eight third grade students were administered the three different cloze tests. Some children were told they were participating in a prereading activity, others were administered the tests with few introductions. The cloze tests were untimed and the students were asked to fill in the blanks as close to the author's as possible.

Twenty-six students took the cloze for "How Six Found Christmas." Forty-six percent of the students scored below forty five percent correct which indicates the story was at their frustration level, thirty one percent of the students scored between forty-five

and fifty-four percent. The material was at their instructional level. Twenty-three percent of the students who scored fifty-five percent or higher, were reading at their independent level. It is important to note that the twenty-three percent who scored at or above fifty-five percent had G.E. scores of 3.7 or higher on their California Achievement Tests in May. They were most likely reading well above this level at the time of the cloze administration. These findings will be noted again later in the study.

Twenty-eight students were administered the cloze test of "The Arctic." Sixty-eight percent of the students scored below forty-five percent which indicates the material is at their frustration level. Twenty-eight percent of the students scored from forty-five to fifty-four percent correct which indicates the material was at their instructional level. Only four percent, one student, scored fifty-five percent or higher. This student had a G.E. score of 5.2 in May of second grade. He/She was an exceptionally good reader at the time of the test. More than fifty percent of the students that took this test were reading at their frustration level.

"The Sandwich" was the only story where the students' highest scores were at their instructional and independent levels. Thirty three percent of the students scored below forty five percent. Thirty eight percent scores forty five to fifty four percent and twenty nine percent scored fifty five percent or higher. The scores were remarkably high even though there were many proper nouns in the

passage. The Spache and the Lorge showed the highest readability scores for this passage than the others, yet a larger number of students were able to score higher on the cloze.

Analysis of the Cloze and the Readability Formulas

There was no significant difference between the cloze results and the readability formulas in the five out of six instances. The readability formulas displayed indices that were up to three grade levels higher than the publisher's index. The only occurrence where it did not show a significant difference was when the Spache was applied to "The Arctic." The story was almost a half year higher than third grade level. It still qualifies as a third grade story for the series.

Another contradiction dealt with the difference found between the indices with the formulas and the cloze findings for "The Sandwich." Although the story had very high readability indices (5.47 and 6.87) the students scored better on this than the other two stories. Less children scored at their frustration level when they took this cloze.

Table 2

Comparison of Cloze Results and Readability Formulas

Story	Spache	Lorge	Frustration	Instructional	Independent
			(Percentage of Students at Particular Level)		
"The Sandwich"	5.47	6.87	33%	38%	29%
"How Six Found Christmas"	4.59	4.82	46%	31%	23%
"The Arctic"	3.48	5.30	68%	28%	4%

Summary

In summary, the cloze test results showed that two of the stories were above the publisher's readability level. The students had the most difficulty with "The Arctic" and "How Six Found Christmas." A large majority of the students were reading at their frustration level. The Spache and the Lorge formula calculations helped to support these findings.

"The Sandwich," which had the highest readability indices out of the three stories, was displayed as the easiest story to read. The readability formulas affected the indices in this way due to the high number of proper nouns. Once the students got beyond the proper nouns or "hard words" they were able to fill in the blanks more successfully than in the other two passages.

Readability formulas may not be very reliable in all cases. A teacher's judgment should outweigh the emphasis that is put on readability indices, especially those of a publisher. This study displayed the usefulness of the readability formulas, but also the uncertainties that may arise.

Chapter V

Conclusions and Implications

Purpose

The purpose of this study was to determine if the readability levels of three third grade stories, that are found within a reading text, fall below or above the publisher's indicated readability level.

Conclusions

It should be noted that the conclusions drawn in this chapter refer specifically to the cloze test results of the third grade students who participated in the study. Also, the validity of the two readability formulas was relied upon in order to confirm the results.

The three null hypotheses were rejected in all areas. There were significant differences between the publisher's readability level and the readability indices that were established with the Spache and the Lorge formulas. There was a significant difference for all three stories except during one calculation. The Spache produced a readability level of 3.48 for the story "The Arctic." The results fall within a third grade range for a 3¹ basal.

The results were also significant when the publisher's indicated readability level was compared with the cloze results. There is also another exception in this area. Although the readability formulas displayed such high indices for "The Sandwich," the cloze contradicted these results. It showed that five percent more children were reading at an instructional level than at a frustration level. A five percent difference was not extremely significant, but needed to be noted.

The third hypothesis was rejected because there was a significant difference between the cloze results and the formulas. The cloze test results displayed the story, "The Arctic," as being the most difficult while the formulas showed "The Sandwich" as being the most difficult to read. There were other discrepancies as well. The Spache and the cloze displayed "How Six Found Christmas" as being the second most difficult, while the Lorge displayed "The Arctic" as the second most difficult. Also, the formulas displayed the story, "The Sandwich," as being most difficult and the cloze displayed it as the least difficult. In conclusion, the data for the third hypothesis showed greater differences than the first two.

Implications for the Classroom

All students should have the opportunity to learn to read with ease. If materials are too difficult then it can hinder a child's learning process.

In a study by Perry and Sagen (1989) they stressed how vocabulary loads vary from publisher to publisher. Even the series with the lowest vocabulary introduces quite a few words. Primary children of the 1980's are expected to learn a lot of words. Perry and Sagen (1989) state:

For those students whom (sic) learning to read is not an easy task, the vocabulary of some basals might be a little too rich and extensive. Specifically, is more necessarily better (p. 181)?

In the case of vocabulary load, more does not mean better for all students. Teachers using a basal series with a relatively high vocabulary load need to make some adjustments for the less able students (Perry, p.184).

Teachers can try to predict the readability levels of materials they use or rely on the publisher's readability indices. They may also want to acclimate themselves to the use of some readability formulas.

Researchers including Klare (1974) have found that the most reliable means of analyzing readability of materials is to apply formulas or tests using subjects. Klare states:

Two major solutions are possible: measuring and predicting readability. Measuring by judgments or tests, involves using readers. Predicting by readability formulas does not involve readers, but instead uses counts of language elements in the piece of writing (p.62).

A short cloze test, which contains approximately 100 words from a story that a teacher may use, can assess whether or not the material is at his/her students' frustration, instructional or independent levels.

Through experience and practice teachers can become better acquainted with the materials they use. If teachers are tuned into their students' needs, they will notice their students making more gains when reading at the appropriate level.

Suggestions for Further Research

Further research is needed to fully understand the effects of the use of a whole language basal series. Research in the field should include an investigation of the use of more readability formulas. It might include using a larger sample group when administering the cloze procedure. More stories from the Impressions basal might also be analyzed.

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APPENDIX

Name _____ G.E. _____

Date _____ Score _____

"The Sandwich"
by Ian Wallace and Angela Wood

Directions: Put only one word in each blank to make the sentences complete. Do your best to make them make sense.

My name is Vincenzo Ferrante and I am in Grade 3 at Clinton Street Public School.

I live at 538 Manning _____ in a flat over Milgrom's Variety with my father, _____ sister Lisa, my Nonna, Zio Salvatore; _____ my two rabbits, Tucci _____ Zeppo. They live in _____ wire and wood cage _____ papa and I made _____ them.

"Mamma used to live _____ us, but she died _____ year ago which makes _____ sad sometimes. When I'm _____ I climb into my _____ lap and feel much _____."

"After Mamma's death Nonna _____ over from Italy and _____ been helping us to _____ him at work, driving _____ streetcar up and down St. Clair _____. She helps me make _____ bed, cooks our favorite _____ to eat, and tells _____ bedtime stories in Italian _____ Nonna can't speak English."

"Until today I have _____ eaten lunch at home. _____ for the first time _____ am going to eat _____ school. Mamma and Nonna _____ say, "Vincenzo, you can _____ a better lunch at _____ than out of a _____. So, you'll eat at _____."

Name _____ G.E. _____

Date _____ Score _____

"How Six Found Christmas"
by Trina Schart Hyman

Once upon a time there was a little girl who had never heard of Christmas and therefore did not know what it was. By chance one day _____ happened to meet an _____ wise woman who told _____ that there was such _____ thing. But the wise _____ did not elaborate on _____ matter, so the little _____ was left as ignorant _____ before, yet with a _____ curiosity.

Being a sensible child, _____ decided that the best _____ to find out what _____ Christmas was would be _____ go and find one _____ have a look for _____.

So she set out, _____ many others have done _____ her, for the Great _____ Forest of the North, _____ look for Christmas.

She _____ for two days and _____ nights, and on the _____ of the third day _____ chanced to meet a _____ gray cat who was _____ at the edge of the _____ forest shaking her paws _____ account of the snow.

"_____ are you going, my _____", asked the cat, "and _____ are your mittens?" This _____ was a straightforward, motherly _____.

"I am going to find a Christmas," said the little girl, "and my mittens are in my pocket."

Name _____ G.E. _____

Date _____ Score _____

"The Arctic: What Lives There"

by Lee Pennock Huntington

In the Arctic, most of the land is always frozen. Deep crevices split the _____ rough surface of the _____. There are towering white _____, but no trees. At _____ edge of the polar _____ are the cold polar _____, full of moving chunks _____ ice, called pack ice. _____ the long winter, the _____ is dark day and _____. Everywhere you look, there _____ snow and ice. What _____ live in such frozen _____ places?

Many kinds of _____ make their home in _____ icy waters and on _____ snow-covered land of the _____. Small growing things called _____ fill the polar seas _____ float together to make _____ pastures for hungry sea _____. Even smaller is the _____ plant called the diatom, _____ than the dot at _____ end of this sentence. _____ of diatoms live in _____ plankton.

