USE OF THE FLESCH READING EASE FORMULA IN SELECTING SOCIAL STUDIES MATERIAL

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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]

UNIVERSITY OF VICTORIA

October, 1973

Supervisor: Dr. Richard H. Monk

ABSTRACT

The purpose of this study was to determine whether the assigned social studies text for grade eight was written at the appropriate readability level, and whether the readability level of such textual material had any effect on student achievement.

The subjects for this study were enrolled in three, grade eight, social studies classes at Reynolds Secondary School in School District #61, Victoria, B.C. All students had been assigned to their respective classes without regard to ability in English.

The design involved the selection of a series of passages from the text for testing as to difficulty by the Flesch Readability Formula and for rewriting at three specific levels of difficulty - grade six, grade eight, and grade ten. Each of the three classes participating in the study was required to read the six rewritten selections, two at each level of difficulty. After reading each selection, student comprehension was tested.

Statistical procedures were then employed to determine if there were any significant differences between the means of the test scores. The results showed that student achievement was significantly higher on tests based on selections written at the lowest readability level. Also, when rated by the Flesch formula, the text was found to be written at

an average readability level considerably higher than grade eight.

It was concluded that the grade eight text is not written at the appropriate level of readability. When the material is rewritten at an appropriate level, student achievement improves.

It is recommended that (1) texts should be chosen which are written at the appropriate grade level, (2) members of textbook committees and classroom teachers should make use of readability formulas when selecting textbooks.

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CHAPTER 1

INTRODUCTION

One of the basic purposes of education is to develop independent learners. If teachers fail to help students develop skills necessary for independent learning, then the students will have difficulty continuing their "education" when they leave school.

In order to become an independent learner, students must be able to read textual material competently. But many teachers become frustrated because students often are unsuccessful in reading such material. One reason for this situation is that while elementary school students are required to read expository material in most subjects, they are not taught to handle exposition as well as they are taught to handle narration. Yet Herber states, "Students at the secondary level are required to read increasingly complex and abstract exposition, and teachers assume that they are equipped to do so."[1]

Because of the difficulty some students have with reading, teachers often provide information by means of lectures in place of textual assignments, and many students never learn to read assigned textbooks in the subject properly. Herber says:

> The adequacy of texts raises several problems. One is the vocabulary load...Students find it difficult to read the material because they are unfamiliar with the language of the subject,

> so teachers generally rely on lectures to convey the information.
>
> A related problem is concept load. Authors develop abstract concepts with complicated language. Concepts are presented rapidly - faster than many students can absorb - and are not carefully paced. Moreover, the concepts are not developed sequentially; that is, sophistication needed to handle certain concepts is assumed by the authors rather than ensured. If students are not prepared to handle abstractions, they cannot be expected to develop concepts through their reading. Again, sensitive to students' inadequacies, teachers resort to the lecture to convey concepts.[2]

It would appear, then, that a study dealing with the suitability of assigned texts in British Columbia would be justified in order to discover whether or not such a situation exists here.

The problems this study seeks to answer are the following: Does the level of reading difficulty of textual materials affect students' achievement in social studies; and is it possible for a teacher, using an appropriate tool such as a readability formula, to judge the difficulty level of such material effectively?

In his survey of the literature on reading instruction, Russell says:

> It is apparent that there are at least three broad aspects of interpretation and reading; namely, word knowledge, apprehending the meaning of passages, and thoughtful reaction and the use or application of the ideas read. The speed at which the reader interprets what he reads also merits emphasis.[3]

Thus it would appear that for students to cope successfully with textual materials, they must be able to read and understand such materials within a reasonable period of time.

Strang[4] states, however, that many teachers complain that students cannot master specific subjects because they cannot read the textual materials supplied.

One possible reason for this problem is that the textual material is written at a higher level of reading difficulty than the level at which students are able to read with relative ease. If this is so, students may have little or no success with the more specialized reading skills demanded in the various content fields. For instance, the study of history requires students to master such skills as (1) locating specific information, (2) determining the authenticity of sources, and (3) seeing relationships. Where the material is too difficult, students may become more involved with the reading task itself than with the ideas being presented. It would be advantageous to know whether the reading difficulty level of a text has a direct relationship to students' achievement scores. This study will attempt to determine if this is the case.

The study will explore a means of judging the suitability of textbook materials in social studies at the grade eight level. Specifically, it will seek to discover

whether the Flesch Reading Ease Formula (1948) is a useful criterion in selecting suitable texts.

Hypotheses

The hypotheses inherent in the study are:

(a) that the Flesch formula will show an unevenness in levels of difficulty of randomly selected passages in the text currently authorized for use at the grade eight level in B.C. schools.

(b) that the text used is not written at the reading level of the grade at which it is assigned.

(c) that there will be a significant difference in student achievement using teacher-made tests based on the selected text when the text passages are rewritten at approximately the grade six level, the grade eight level, and the grade ten level of readability according to the Flesch formula.

Background and Significance of the Study

A review of appropriate research will show that many social studies texts are too difficult for the grades in which they are used. One quotation, typical of many, should serve to support this statement:

> Studies of the range of reading ability to be expected in an average class generally show a range of five to seven years in the middle and upper grades. Thus even if the textbooks were written at the average reading level of a particular grade the texts would still be too difficult for large numbers of students.[5]

As more emphasis is given to individual study, teachers give students less help with the understanding of the basic text. Thus it is probable that the difficulty many students have with their texts will become aggravated.

This situation might be improved by selecting texts more carefully, using all the criteria available. One criterion for such selection should be reading difficulty as determined by a readability formula which can effectively supplement subjective judgement. Such a measure is the Flesch Reading Ease Formula (1948). This formula is easy to apply and is considered to be reliable and valid.[6]

Limitations of the Study

The Flesch formula measured reading difficulty by using two criteria - sentence length and word length according to the number of syllables. Therefore, the study does not take into consideration such things as organization, interest level, content, and format.

The following questions suggest further limitations:

(1) Is it possible for the teacher to acquire enough books at the appropriate reading levels if students' reading ability varies widely in each class?

(2) Will the use of materials at the appropriate levels affect skills other than comprehension such as application, analysis, and making judgements?

(3) Will the students in grade levels above or below the

grade tested in the study be similarly affected by this method of selecting materials?

Footnote References - Chapter 1

[1]Harold L. Herber, Teaching Reading in the Content Areas (Englewood: Prentice Hall, 1970), p. 5.

[2]Ibid., p. 7.

[3]David H. Russell, "Reading," Encyclopedia of Educational Research (New York: The Macmillan Co., 1960), pp. 1100-1101.

[4]Ruth Strang, "Developing Reading Skills in the Content Areas," High School Journal, V1 (April, 1966), pp. 301-306.

[5]Margaret I. Janz and Edwin H. Smith, "Students Reading Ability and the Readability of Secondary School Subjects," Elementary English, XLIX (April, 1972), p. 623.

[6]Alberta S. Gilinsky, "How Valid is the Flesch Readability Formula," The American Psychologist, 111, (July, 1948), p. 261.

CHAPTER II

REVIEW OF THE LITERATURE

The literature was reviewed with the idea in mind of answering the following questions: (1) Do many students experience difficulty in reading textual material in the content areas? (2) Are the assigned texts which contain the subject material in the content areas written at a level at which most students are able to read with comparative ease? (3) Are readability formulas considered a reliable criterion for judging textual material?

The first aspect of the review is intended to show that studies involving the reading process indicate that difficulties in reading present a major problem in secondary schools. Penty[1] writes that three times as many "poor" readers as "good" readers dropped out of school before grade ten. Courtney[2] and Flickinger's[3] results not only supported Penty's general findings but add that due to new secondary curricula which will require the student to adapt quickly to many kinds of material, the gap between the gifted student and the slow student will be widened even though special materials will be available for the slow reader.

Much of the material reviewed suggests that it is the responsibility of the content area teachers to supply training in reading for their specific subjects, for they alone

know the objectives students should establish before and during the reading of particular selections. Perry,[4] however, found that only one per cent of Harvard freshmen were able to establish objectives for themselves in reading. Smith[5] found that "poor" readers were far less able to adjust their reading to their purpose than were "good" readers. Obviously, then, they had not received this training at the hands of their secondary school subject specialists.

Interest in reading is important if skills in reading are to be developed. Duffy[6] says that there is a close relationship between teaching reading skills and instilling the reading habit in the student, and success depends on the extent to which a student develops independence in reading. Smith and Dechant[7] report that one study showed that out of 100 "poor" readers examined, the low ability of 82 was mainly a result of lack of interest.

The second aspect of the review concerns the readability of materials. Janz[8] used the Flesch formula to rate texts of 590 students in grades 8, 9, and 10 from five schools. She found that the texts were too difficult for anywhere from 36 per cent to 93 per cent of the students using a standardized reading test as a criterion. Even if the texts were written at the average reading level of a certain grade, the books would still be too difficult for many students.

Further studies by Mallinson, Beldon, and Rammell[9] showed that many science books at the secondary level were written at readability levels too high for the students. Aukerman[10] found a similar situation existed with literature texts.

Chall states, "The idea underlying readability measurement is the appropriate matching of reader and printed material."[11] She goes on to say that the first procedures for matching students with materials were based on judgement alone. While in many cases this was a satisfactory method, there is overwhelming evidence to show that children were subjected to material that was too hard for them. Chall further says it was this inadequacy that drove researchers to strive for three major goals:

> . . . the discovery of these factors that will validly distinguish easy from hard materials, a reliable means for measuring such factors, and an expression of some combination of them in terms of reading ability essential to comprehension.[12]

The third aspect of the review concerns the development and reliability of the formulas. Comprehensive surveys of the development of readability formulas were undertaken by Chall[13] and Klare.[14] Klare[15] rates the Flesch formula as the most popular because it is easy to apply it quickly, and it is the one on which most research data are available.

From Lively and Pressey's first formula in 1923 to the year 1954, Klare has estimated the number of independently

developed formulas at 31, with 10 variations of these formulas, using the following criterion:

> . . . 'readability formula' refers to a method of measurement intended as a predictive device that will provide quantitative, objective estimates of the style difficulty of writing. The method must be general enough to provide estimates over a wide range of application and difficulty, and must be capable of providing these estimates without involving the use of readers in any way.[16]

A readability formula, of course, must measure what it claims to measure before it can be considered valid. Much research has been carried out regarding the validity of such formulas and Klare summarizes some findings:

> Evidence of formula validity comes from three sources. The first is the extent to which a formula can account for the variance (variability) in the original criterion passages on which it was developed. Recent formulas yield a maximum correlation coefficient of around .70 between formula scores and indices of difficulty in the criterion passages. In terms of prediction error, formulas are probably accurate to within about one grade level of a true rating. The second source of validity comes from comparisons of the readability scores of several formulas on the same reading material. Several clear-cut conclusions that can be drawn are: (1) the Dale-Chall and the Flesch Reading Ease formulas yield the most nearly comparable scores; the Dale-Chall formula is involved in more high intercorrelations with other formulas than any other single formula; (2) formulas may tend to disagree with each other in readability grade placements of materials even though there is a high correlation between formula scores. The third source of validity evidence lies in studies which relate formula scores to some outside criterion of readability. For example, formula scores on a series of reading test passages may be correlated with comprehension

> scores on the passages. Or in another type of study, a passage may be rewritten at several different levels of readability, with formula scores compared to some outside criterion.

Chall[18] reports that the Flesch formula is consistent with the Lorge and Dale-Chall formulas to within one grade level. Intercorrelations are .81 and .90 respectively in determining the readability of 27 standardized tests commonly used.

Gilinsky[19] had fifteen college students rate 75 samples of prose for reading ease and compared their ratings with Flesch scores on the same material. Correlations between the students' independent readability judgements and Flesch readability scores ranged from .61 to .84. Peterson[20] compared Flesch readability scores with a test of reading comprehension using Reader's Digest material. Fifty anecdotes from the "Life in These United States" section were condensed and rewritten to yield five 100 word passages at each of 10 points of difficulty according to the Flesch readability formula. The differences between mean comprehension scores for adjacent Reading Ease levels were significant at the 5 per cent level. With regard to accuracy in applying the Flesch formula, Hayes[21] found that analyst reliability was high even with inexperienced analysts rating the readability level of material.

McTaggart[22] rewrote passages from high school health texts for the grade seven level, the grade nine level, and the grade twelve level using the Flesch and Dale-Chall formulas as criteria. He found that these two readability formulas had essentially equal validity when used to determine various levels of reading difficulty as reflected in the respective comprehension tests. He also reported that essential health concepts did not have to be deleted in order to make passages more readable.

One must remember that the formulas have limited applicability. They do not measure organization, word order, format, or imagery in the writing. They do not take into consideration the varied purposes, maturity, or intelligence of readers. As Klare says, "Formulas are not measures of good style."[23] But while the formulas do not measure quality of style, they do measure difficulty of style. Klare explains:

> If formulas are thought of as efficient predictors of difficulty, more accurate in prediction than individual writers most of the time, that is all that should be expected. At present, at least, content and all other elements of writing, plus aspects of style other than difficulty, are not taken into account in formula scores. Formulas can be highly useful to a professional communicator if these limitations are kept in mind.[24]

[1]Ruth C. Penty, "Reading Ability and High School Drop-Outs," Readings in Reading, Delwyn G. Schubert (ed.), New York: Thomas Y. Crowell, 1968), pp. 11-15.

[2]Leonard Courtney, "Recent Developments in Reading Instruction in the Content Areas," Recent Developments in Reading, H. Alan Robinson (ed.), (Chicago: University of Chicago Press, 1965), pp. 142-145.

[3]Alice Flickinger, "Recent Developments in the Social Studies," Recent Developments in Reading, H. Alan Robinson (ed.), (Chicago: University of Chicago Press, 1965), pp. 152-155.

[4]William G. Perry, Jr., "Student Use and Misuse of Reading Skills: A Report to the Faculty," Harvard Educational Review, XXIX (Summer, 1959), pp. 193-200.

[5]Helen K. Smith, "The Responses of Good and Poor Readers When Asked to Read for Different Purposes," Recent Developments in Reading, pp. 195-200.

[6]Gerald G. Duffey, "Developing the Reading Habit," The Reading Teacher, XXI (December, 1967), p. 255.

[7]Henry P. Smith, and Emerald V. Dechant, Psychology in Teaching Reading (Englewood: Prentice-Hall, 1961), p. 273.

[8]Margaret L. Janz and Edwin H. Smith, "Students' Reading Ability and the Readability of Secondary School Subjects," Elementary English, XLIX (April, 1972), pp. 622-625.

[9]Ibid., p. 624.

[10]Robert C. Aukerman, "Readability of Secondary School Literature Textbooks: A First Report," English Journal, LIV (Summer, 1965), pp. 533-540.

[11]Jeanne S. Chall, Readability: An Appraisal of Research and Application (Columbus: Ohio State University, 1958), p. 9.

[12]Ibid., p. 12

[13]Ibid.

[14]George R. Klare, The Measurement of Readability (Ames: Iowa State University Press, 1963).

[15]Ibid., p. 23.

[16] Ibid., p. 3.

[17] Ibid., p. 6.

[18] Chall, p. 95.

[19] Alberta S. Gilinsky, "How Valid is the Flesch Readability Formula," The American Psychologist, 111 (July, 1948), p. 261

[20] Margaret Peterson, "Comparison of the Flesch Readability Scores with a Test of Reading Comprehension," Journal of Applied Psychology, Xl (May, 1956), pp. 35-36.

[21] P. L. Hayes, J. J. Jenkins, and B. J. Walker, "Reliability of the Flesch Readability Formulas," Journal of Applied Psychology, XXlV (February, 1956), pp. 22-26.

[22] Aubrey C. McTaggart, "Measuring the Readability of High School Health Texts," Teaching Reading in the Secondary School, Arthur V. Olson and Wilbur S. Ames (eds.), (Scranton: International Textbook Company, 1970), pp. 303-315.

[23] Klare, p. 25.

[24] Ibid.

CHAPTER III

METHODS AND PROCEDURES

The subjects used in this study were enrolled in three, grade eight, social studies classes at Reynolds Secondary School in School District #61, Victoria, B.C. The class sizes at the time of testing were 30, 32, and 34, for a total of 96 students. All students had been assigned to their respective classes without regard to ability in English and were all taught by the investigator. The text from which the selections were taken, The Shaping of Modern Europe, is currently authorized for use in B.C. schools as the basic grade eight history text.

The design involved the selection of a series of passages from the text for testing as to difficulty by the Flesch formula and for rewriting at three specific levels of difficulty. The procedures used were as follows:
(a) Six passages, each of approximately 560 words in length, were arbitrarily chosen at 25-page intervals from the text and were then rated for their difficulty level by the Flesch formula. All selections were then rewritten within the range of scores suggested by Flesch, each to approximate the grade 6, the grade 8, and the grade 10 level of reading difficulty. (See Appendix B.) Ten questions were then developed for each selection for use in checking student comprehension. These questions were written at the grade 6

level of reading difficulty to reduce the chance of misunderstanding their meaning.

The procedure used in rewriting the selections at the various levels of reading difficulty was based on the Flesch formula as shown in the appendix. First, the selections were chosen and rated for readability. Sentence lengths were then changed and various words were substituted until each selection fell into the three readability categories using the following scores as criteria.

TABLE 1. - Flesch reading ease scores and comparative reading grade levels

Reading Grade Level	Reading Ease Score
Grade 6	80 to 90
Grade 8	65 to 70
Grade 10	55 to 60

The changes made in the first sentence in selection number 1 are shown by way of illustration.

1. Sentence as written in text — In the centre of town was the market-place where two or three times a week people from outside came to sell their wares.

2. Sentence as written at level 6 — In the centre of town was the market-place. Here, two or three times a week, people from the farms came to sell their wares.

3. Sentence as written at level 8 — In the centre of town was the market-place and, here, two or three times a week, people from outside came to sell their wares.

4. Sentence as written at level 10 — In the centre of the medieval town was the market-place where several times a week people from the countryside came to sell their products.

At level 6, two sentences have been formed in place of the original one. The words "the farms" have been substituted for "outside". These two sentences consist of 24 words and 29 syllables. At level 8, the words "and, here," have been substituted for "where" in the original sentence, making a total of 24 words and 29 syllables. At level 10, the word "several" has been substituted for "two or three"; the word "countryside" for "outside"; and the word "products" for "wares". Also, the word "medieval" has been added. The sentence still consists of 24 words, but it now has 36 syllables.

Thus, as the level of difficulty was increased, the sentence length and the number of syllables were also increased in relation to the number of words used.

(b) A panel of five judges was chosen - three from the school's social studies department and two from the English department - to advise as to the suitability of the questions and the acceptability of the answers in the key. The judges also checked the suitability of the rewritten selections to ensure that any modifications made in the difficulty did not significantly affect the meaning and content of the passages. The selections and questions were then used on a trial basis

with two classes not otherwise involved in the experiment, in order to determine their suitability before they were given to the experimental groups.

(c) Each of the three classes participating in the study were required to read six of the rewritten selections, two at each level of difficulty, as follows:

TABLE 2. - Selections read by each class

Selection Number	Grade 6 Level	Grade 8 Level	Grade 10 Level
1	Class A	Class B	Class C
2	Class B	Class C	Class A
3	Class C	Class A	Class B
4	Class A	Class B	Class C
5	Class B	Class C	Class A
6	Class C	Class A	Class B

Thus, for example, the first class, Class A, read selection 1 and 4 at the grade six level; selection 3 and 6 at the grade eight level; and selection 2 and 5 at the grade ten level.

Each class read the selections and answered the questions at the rate of two selections (20 questions) in each of three consecutive social studies class periods according to the regular time table for that class. The selections were read in numerical order by each class. For example, at the first sitting, Class A read selection number 1 at the grade 6 level

and selection number 2 at the grade 10 level. At the second sitting, Class A read selection number 3 at the grade 8 level and selection number 4 at the grade 6 level. At the third sitting, Class A read selection number 5 at the grade 10 level and selection number 6 at the grade 8 level. In all, each of the 96 students answered 20 questions at each level of difficulty making a total of 60 questions answered by each student. Students were told that the test results would be included in their social studies term mark.

A time limit of 15 minutes was set for reading each selection and answering the questions associated with it. Of this time, 5 minutes were allowed for reading each selection. When the 5 minutes had elapsed, students were required to turn their papers over and begin answering the questions pertaining to the selection. They were not permitted again to refer to the reading selection when answering the questions. At the end of the 15 minute time period, students were told to stop work and the papers were collected. If students wished to begin answering the questions before the initial 5 minute time period for reading was up, they were permitted to do so. However, once they started answering the questions, they could not go back to the reading selection. All students, when questioned, stated that the time allotted was ample for both reading the selections and answering the questions.

The reliability of the comprehension tests was determined by use of the split-half correlation technique. The 60 questions were divided into two half-length tests of 30 questions each on an odd-even split. The scores were then correlated to determine their reliability, and the reliability coefficient,($r = .75$), was found to be satisfactory.[1] (See Appendix A.)

When the test results were tabulated they were subjected to a one-way analysis of variance. The use of this procedure was suggested by the following statement:

> Averages such as the mean are merely attempts to summarize the performance of the group in one score. They would be the best single guess anyone could make about the probable behaviour of any single member of the group...Any guessing about future performance of the individuals is improved if measures of central tendency and measures of the variation in the total of performance are known.
>
> Studies of teaching methods often use, necessarily, intact groups such as samples. If a research worker wished to arrive at a conclusion that goes beyond a simple historical statement that such and such a method was better at this time with their students, he must design his study so that he can at least take account of the possible systematic differences between clusters. Ordinarily, this will demand an analysis of variance.[2]

The 0.05 level of probability was selected as the level of significance as it seemed appropriate for this study and appears to be an accepted level in research generally. As the analysis of variance procedure does not provide a test of the differences between particular pairs of means, these differences were also tested for significance by the Neuman-Keuls formula. Again, the 0.05 level of probability was employed.

Footnote References - Chapter III

[1]Henry E. Garrett, Testing for Teachers (New York: American Book Co., 1959), p. 224.

[2]Association for Supervision and Curriculum Development, Research for Curriculum Improvement (Washington, D.C.: N.E.A., 1957 Yearbook), p. 90.

CHAPTER IV

RESULTS

The outcomes of procedures outlined in Chapter III appeared to give an affirmative answer to the questions posed in the introduction: "Does the level of reading difficulty of textual material affect students' achievement in social studies, and is it possible for a teacher to judge the difficulty level of such material effectively?" In short, findings support all three hypotheses as stated in Chapter I.

The first hypothesis to be tested was that the Flesch formula would show an unevenness in levels of difficulty in passages selected from the grade eight social studies text. When the formula was applied to the six selections, as originally written, the reading ease scores ranged from 65 (grade 8-9) to 54 (grade 11-12) with the average score being 60.5 (grade 9). (See Flesch estimated grade levels in appendix.) A full tabulation for each selection is shown in Table 3.

TABLE 3. - Reading ease scores and grade level equivalents as the selections appear in the text

Selection Number	Page Number	Reading Ease Score	Flesch Grade Level Equivalent
1	1	59	10th grade
2	28	65	8th to 9th grade
3	51	61	9th grade
4	76	63	9th grade
5	98	61	9th grade
6	122	54	11th to 12th grade
		Mean 60.5	Mean 9th grade

As shown in Table 3, these scores represent a range in reading levels from grade 8 to grade 12 with the mean at the high grade 9 level. Thus the average difficulty is at a level which requires students to be prepared to begin reading material written at the high grade 9 level even though they may actually begin work at the grade eight level.

As a further check on the finding, 14 random selections of 100 words each were tested and found to have a range in readability scores of 68 (grade 8) to 50 (grade 12) with the mean being 59 (grade 10) as shown in Table 4. These ratings indicate further that there is no gradation from less difficult to more difficult levels from the beginning of the text to the end. In fact, the highest level of difficulty is found in the first selection appearing on page one of the text.

The second hypothesis to be tested was that the text is not written at the reading level for which it is assigned. Clearly, it is not. Again referring to Tables 3 and 4, one finds that only 1 selection of the 21 was rated at the grade 8 level. All others were rated as being more difficult with the mean level being at grade 10.

The third hypothesis to be tested was that there would be a significant difference in student achievement when selections were written at different levels of readability.

As shown in Table 5, students' achievement was highest on tests based on the selections written at the grade 6 readability level.

TABLE 4. - Reading ease scores and grade level equivalents of 15 one hundred word selections in the text

Selection Number	Page Number	Reading Ease Score	Grade Level Equivalent
1	1	50	12
2	10	52	12
3	21	52	12
4	30	68	8
5	40	62	9
6	50	59	10
7	60	54	11
8	70	59	10
9	80	62	9
10	90	62	9
11	100	58	10
12	110	65	between 8 and 9
13	120	63	9
14	130	63	9
15	140	56	11
		Total 885	
		Mean 59	Mean Grade 10

TABLE 5. - Test Results for the Three Levels of Readability

Grade 6 Level			Grade 8 Level			Grade 10 Level		
Possible Score	N	Product	Possible Score	N	Product	Possible Score	N	Product
16	5	80	16	2	32	16	2	32
15	4	60	15	1	15	15	0	0
14	2	28	14	9	126	14	5	70
13	7	91	13	6	78	13	3	39
12	8	96	12	11	131	12	4	48
11	7	77	11	12	131	11	7	77
10	7	70	10	4	40	10	9	90
9	14	126	9	7	63	9	6	54
8	12	96	8	15	120	8	8	64
7	5	35	7	11	77	7	8	56
6	9	54	6	5	36	6	12	72
5	2	10	5	7	35	5	8	40
4	3	12	4	1	4	4	13	52
3	2	6	3	1	3	3	3	9
2	1	2	2	2	4	2	4	8
1	1	1	1	0	0	1	0	0
0	0	0	0	0	0	0	0	0
	96	974		96	918		96	785
Mean 10.135			Mean 9.542			Mean 8.156		

The results obtained when these means were subjected to the Neuman-Keuls test of significance of differences are shown in table 6.

TABLE 6. - Tests of differences between all pairs of means

Test Means	Level 6	Level 8	Level 10
	10.135	9.542	8.156
Level 6 10.135		.593	1.079##
Level 8 9.542			1.386##
Level 10 8.156			
		## Significant at the 5 per cent level	

The table shows that student achievement on tests at the grade 6 level of readability was significantly higher than student achievement on tests based on the grade 10 level selections. It was also significantly higher at the grade 8 level than at the grade 10 level. However, while higher at the grade 6 level than at the grade 8 level, these particular differences were not significant at the 0.05 level of probability.

The test employed to discover the differences among the overall scores was a one-way analysis of variance.[1] This test indicated significant differences at the 0.05 level of probability with an "F" score of 15.74. Further, the two tests carried out showed that achievement tended to be significantly better when the students dealt with material written at the lower readability level. Thus the third hypothesis of the study was supported as well.

Footnote References - Chapter IV

[1]Ben James Winer, *Statistical Principles in Experimental Design* (New York: McGraw-Hill, 1962), pp. 105-132.

CHAPTER V

CONCLUSION

In summary, the findings indicate that the Flesch formula is a useful aid in judging the level of reading difficulty of social studies materials, at least as contained in the text examined. As rated by the Flesch formula, the levels of difficulty of the selections in this text ranged from the grade 8 to the grade 12 level, and indicate that the text is not written at the reading level of the grade at which it is assigned; rather, it is written, on the average, two grades above that level. Nor is the material of uniform difficulty. (See Tables 4 and 5)

Significant differences were found in students' achievement using teacher-made tests on selections rewritten at difficulty levels substantially above the grade 8 level. In other words, if the text materials were to be rewritten at the appropriate level for students, their achievement scores on tests based on these materials would be expected to improve.

In view of these findings, it seems appropriate to make the following recommendations.

First, texts should be chosen which are written at the appropriate grade level. Also, it would be useful to have such texts rewritten at varying levels of difficulty. In this way, many "poor" students would be able to handle the course work competently, while, at the same time, the "gifted"

students would be challenged by material written at a much higher level of difficulty.

Members of textbook selection committees need to be made aware of objective means of selecting such texts. The Flesch formula appears to be a useful tool for this purpose, and more use should be made of it to support subjective judgements. Also, teachers might make use of the formula when selecting a variety of supplementary texts for inclusion in the classroom and main libraries.

A further recommendation relevant to the study is that reading instruction in skills related to social studies should be provided through using materials required in the courses themselves. If, as is generally the case, reading instruction is taught as a separate subject and through the use of unrelated materials, the necessary skills are taught in isolation or not at all. Thus, social studies teachers are forced to rely on some transfer of skills while evidence indicates that there is little such transfer. This problem would be minimized if teachers of social studies themselves assumed the responsibility for teaching the necessary reading skills.

It would seem appropriate to use regular social studies texts for the learning and practising of requisite skills as well as for gaining information. Two techniques might be considered; the use of single sets of basal texts and the use of multiple sets of supplemental texts. Because the

ability and achievement of students in any one class may range across several levels, and because the text may be written at too high a level for most students, the use of a single basal text is probably unsatisfactory. However, if a single text must be used, students must be given assignments that vary in the range of sophistication. For instance, all students may be given a reading assignment that requires guidance in reading for basic information. Those students who need more help than others might be guided to the chapter, page, and paragraph where they will find the information; some are guided only to the chapter and page; others, merely to the chapter. As students improve in their competence, they can be guided to respond at higher levels.

An alternative to the single text is the possibility of using several sets of supplemental texts of varying levels of readability in order to deal with the range of ability in a given class. Students and assigned texts might be matched, as far as possible, according to reading ability levels. Then, during class discussion individuals would contribute points of view as represented by the assigned material.

If students are to learn skills in reading, they must be guided as they read, whether basal texts or supplemental texts are employed. But the teacher must know how to work with one text before he attempts to work with several. In

order to provide students with the opportunity of achieving success in reading, the teacher must know: (1) the reading ability of the students, and (2) the readability level of the material being used by the students. From the evidence shown in this study, the Flesch formula would ba a useful aid in gaining this information.

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APPENDIX A

SCORES USED IN TESTING RELIABILITY BY SPLIT-HALF METHOD

Scores used in testing reliability by split-half method.

Scores for Odd Items	Scores for Even Items
18	22
16	16
8	8
11	15
10	11
14	12
13	15
10	11
20	13
10	11
15	13
23	24
21	25
13	14
16	11
10	7
23	22
17	23
16	21
15	19
12	9
21	20
15	21
8	7
16	7
18	20
8	4
13	12
13	10
11	12
19	22
16	15
Total 469	Total 472
Mean 14.7	Mean 14.8

Pearson Product Moment Formula; r = .75
Spearman Brown Prophecy Formula; r = .85

APPENDIX B

FLESCH READING EASE SCORES

and

ESTIMATED READING GRADE LEVEL

Flesch Reading Ease Scores and

Estimated Reading Grade Level

Description of Style	Average Sentence Length	Average No. of Syll. per 100 Wds.	Reading Ease Score	Estimated Reading Grade
Very Easy	8 or less	123 or less	90 to 100	5th grade
Easy	11	131	80 to 90	6th grade
Fairly Easy	14	139	70 to 80	7th grade
Standard	17	147	60 to 70	8th and 9th grade
Fairly Difficult	21	155	50 to 60	10th to 12th grade (high school)
Difficult	25	167	30 to 50	13th to 16th grade (college)
Very Difficult	29 or more	192 or more	0 to 30	college graduate

Note: According to the Flesch formula, the Estimated Reading Grade Level is the level at which the student is beginning to read. For instance, a student at the fifth grade reading level would have mastered fourth grade reading.

Flesch Reading Ease
Formula

1. Systematically select 100-word samples from the material to be rated;
2. Determine the number of syllables per 100 words (wl).
3. Determine the average number of words per sentence (sl).
4. Apply in the following reading ease quotation:

R.E. = 206.835 - .846wl 0 1.015sl.

APPENDIX C

TEST QUESTIONS

ON

READING SELECTIONS

Questions

Selection Number One

1. Where in town was the market place found?
2. How often did the farmers come to sell their goods?
3. What were skilled craftsmen paid by the day called?
4. What was a masterpiece?
5. Why were inspectors hired by the guilds?
6. What was a burgesse?
7. Where were the living quarters of the houses found?
8. Name one of the schools founded by the guilds.
9. Name two ways by which a town might win its charter.

Selection Number Two

1. Why did sailors not dare sail out of sight of land?
2. What was the first navigational aid to come into use?
3. Who introduced this aid to Europe?
4. Who first invented this aid?
5. What were portolani?
6. What kind of men were probably the first to make charts?
7. What did men use to measure the height of the sun and stars?
8. How was a quadrant used?
9. A sailor can tell where he is without the help of the stars, what is this method called?
10. Why is the term "rate of knots" used in measuring speed?

Questions

Selection Number Three

1. Whose place did Calvin take?
2. What town became the centre of Protestantism?
3. What country was Calvin born in?
4. Name one of two things that Calvin gave the Reformed faith.
5. What profession had Calvin been trained for?
6. What is a theocracy?
7. What is meant by predestination?
8. Who were the elect?
9. Why was Calvinism not a depressing faith to its members?
10. The selection tells of some ways in which Calvinists were like early Christians. Name one way in which they were alike.

Selection Number Four

1. Name one man who was put to death by Henry.
2. What happened to Wolsey?
3. What name did Henry give to Ann of Cleves?
4. What political group helped Henry carry out his reforms?
5. After Henry closed the monasteries, what happened to the property?
6. How were the gold and silver cups disposed of?
7. What happened to the manuscripts?
8. Name two things that Henry used the money for.
9. How did Henry's reformation differ from Calvin's?

Questions

Selection Number Five

1. Why did the army leaders bring Charles to trial?
2. What was Charles charged with?
3. How was Charles executed?
4. What was Cromwell's title?
5. What did Cromwell want to do most for the country?
6. What was Cromwell's main mistake in ruling the country?
7. Why were holy days banned?
8. What country had controlled trade in the East?
9. How did Cromwell give England respect abroad?
10. Why was the monarchy restored after Cromwell's death?

Selection Number Six

1. What problem was there in regard to voting?
2. Which group had the most members?
3. What was the Tennis Court Oath?
4. Who were the first people to fight for reform?
5. What group later joined the fight?
6. Why did the people of Paris become nervous?
7. What had caused a shortage of bread?
8. What was the name of the state prison?
9. What happened to the governor of the prison?
10. Why was the prison attacked when it held only seven prisoners at the time?

APPENDIX D

READING SELECTIONS

Selection Number 1 Level 6

In the centre of town was the market-place. Here, two or three times a week, people from the farms came to sell their wares. Leading off from this were rows of houses packed close together. They were two or three storeys high. The top floor, where the people lived, hung over the street and formed an arcade below. Beneath the overhang, the house owner showed his wares on a trestle made of wood. Here the wares were safe from the rubbish that was thrown from the third floor windows to the street. Behind the shop fronts were the work rooms. Here, apprentices-boys (and some girls) of fourteen to nineteen - learned their craft under the eye of the master. Journeymen were skilled craftsmen paid by the day. They were hired as assistants to make the goods. They might one day apply to join the guild of master craftsmen. First, though, they would have to pay an entrance fee and show an example of their skills. This piece of work was called a masterpiece. The medieval guild could be two things. It could be an association of merchants to further the general trading interests of the town. Or it could be a group of craftsmen for the purpose of guarding the interests of their craft. Bakers, fishmongers, grocers, silver and gold smiths, coopers, cloth workers, cutlers, all formed guilds. There were as many as thirty guilds in large towns such as London, Ghent, and Venice.

Each guild hired inspectors. They made sure that a high

standard of work was done by the members. If one tried to sell inferior or cut-price goods, he was fined. He could also be expelled from the guild. A 'just price' was fixed on all goods. This price was not based on if they were scarce; it was based on how much work and materials had gone into the making. The guild was also a "benevolent society." It helped out the family of a member who fell ill or died. Some of the richer guilds founded schools like Merchant Taylors, Haberdashers, and City of London Schools (Fishmongers). Some places still bear witness to the wealth and importance of the strong guilds of merchants. Some of these are the great churches of the wool towns of the Cotswolds, the Guildhalls of London, Bruges, and Kent.

The rich men of the boroughs were known by varied names. In different parts of Europe they were called burgesses, burgenses, and bourgeoisis. We are not surprised to find they objected to limits placed on them by feudal lords. It was not rare for the Lord's bailiff to be a victim of this. He might be thrown from the walls to an evil smelling ditch. Sometimes a town won its freedom by helping the king suppress a noble. More often a town won its charter of self-government by cash payment.

Selection Number 1 Level 8

In the centre of town was the market-place and here, two or three times a week people from outside came to sell their wares. Leading off from this were rows of closely packed houses two or three storeys high, with the top storey, the living quarters, overhanging the street and forming an arcade below. Beneath the overhang, the house-owner displayed his wares on a wooden trestle where they were safe from the rubbish that was thrown from the third storey windows into the street below. Behind the shop front were the work-rooms. Here apprentices - boys (and sometimes girls) of fourteen to nineteen - learned their craft under the eye of the master. Journeymen were skilled craftsmen who were paid by the day. They were employed as assistants to make the goods. They might one day have saved the necessary entrance fee and presented an example of their skill called a masterpiece. They could then apply to join the guild of master craftsmen. The medieval guild could be two things. It could be an association of merchants to further the general trading interests of the town, or it could be one of craftsmen for the purpose of protecting the interests of their craft. Bakers, fishmongers, grocers, silver and gold smiths, coopers,cloth workers, cutlers, all formed themselves into guilds; there were as many as thirty guilds in important towns, such as London, Ghent and Venice.

Selection Number 1 Level 8

Each guild employed inspectors to ensure that a high standard of workmanship was maintained among its members and anyone trying to sell inferior or cut-price goods was fined or expelled from the Guild. A 'just price' was fixed on all goods. This was based on not whether they were scarce but on how much work and materials had gone into the making. The guild was also a 'benevolent society' helping out the family of a member who fell ill or died. Some of the richer guilds founded schools, like Merchant Taylors, Haberdashers, and City of London Schools (Fishmongers). The great churches of the wool towns of the Cotswolds, and the Guildhalls of London, Bruges, and Ghent still bear witness to the powerful guilds of the merchants.

The wealthy citizens of the boroughs were known in different parts of Europe as burgesses, burgenses and bourgosie. It is not surprising to find them objecting to the restrictions placed on them by the feudal lords. It was not rare for the lord's bailiff visiting a growing town to be thrown from the walls into an evil-smelling ditch. Sometimes a town won its freedom by helping the king suppress a noble. More often, however, a town won its charter of self-government by paying for it in cash.

Selection Number 1 Level 10

In the centre of the medieval town was the market-place, where several times a week people from the countryside came to sell their products. Leading off from this were rows of closely-packed houses two or three storeys high, with the uppermost storey, the living quarters, overhanging the street and forming an arcade below. Underneath the overhang, the house-owner displayed his wares on a wooden trestle, safe from the rubbish that was thrown from the third storey windows into the streets below. Behind the shop fronts were the work-rooms where apprentices - boys (and sometimes girls) of fourteen to nineteen learned their craft under the supervision of the master. Journeymen, skilled craftsmen who were paid by the day, were employed as assistants to make the goods. They might, in the future, if they had saved the necessary entrance fee and presented an example of their skill, called a master-piece, make application to join the guild of master craftsmen. The medieval guild was either an association of merchants to further the general trading interests of the town or an association of craftsmen for the purpose of protecting their particular craft. Bakers, Fishmongers, grocers, silver and gold smiths, coopers, cloth workers, cutlers, all formed themselves into guilds and there were as many as thirty guilds in important towns such as London, Ghent, and Venice.

Every guild employed inspectors to ensure that a very high standard of workmanship was maintained among its members

and anyone trying to sell inferior or cut-price goods was fined or expelled from the guild. A 'just price' was fixed on all goods, based on not whether there was a scarcity but on how much effort and material had gone into the making. The guild was also a 'benevolent society' helping out the family of a member who became ill or died. Some of the wealthier guilds founded schools, like Merchant Taylors, Haberdashers, and City of London Schools (Fishmongers). The maghificent churches of the wool towns of the Cotswolds, and the Guildhalls of London, Bruges, and Ghent still bear witness to the wealth and importance of the powerful guilds of merchants.

The wealthy citizens of the boroughs were known in different parts of Europe as burgesses, burgenses, and bourgeosie, and it is not surprising to find them objecting to the restrictions placed on them by the feudal lords. It was not uncommon for the lord's bailiff visiting a growing town to be thrown from the walls into the evil smelling ditch. Occasionally a town won its freedom by helping the king to suppress a noble. More often, however, a town won its charter of self-government by paying for it in cash.

Up to the year 1400, few sailors from Europe dared sail out of sight of land, for if they could see nothing but the sea on all sides they were lost. Not much was known of how to use the stars and the winds.

But from 1200 to 1400 some aids to navigation came to Europe. These aids were brought by the Arabs. The compass first found its way into use in about 1400. It had been known to the Chinese for about 3,000 years. It was from these people that the Arabs had obtained the idea. The first type of compass used by European sailors was a magnetized steel pointer which floated on water on a small piece of wood. The "needle" which was pulled by the earth's magnetism pointed to the north so that the difference between that and the direction or course of the ship could be worked out. This primitive form of the instrument was changed to a needle which swung freely on a central pivot above a compass card showing the 32 points. Once the sailor knew what course he was on, the compass could help him keep on that course. The big job was to work out the direction to steer. Then the sailor had to find out if the ship was on the right course. As far back as the 13th century "schools" of chart-makers began to make drawings. These men were likely retired sailors. They used skin from sheep to make these charts of ports, harbours, bays, and coastlines they had seen. Gradually, they joined the ports by rhumblines which were lines along which a ship was to sail. These portolani were in great demand by medieval sailors.

The fear which came to all men when out of sight of land was, in time, lost, and this was accomplished by the use of the astrolabe. The Arabs had invented it to measure the height of the sun and the stars. The Portugese were the first to make use of it when they invented a quadrant fitted with sights. A quadrant was a quarter of the round astrolabe. The navigator lined these sights up with a star, often the Pole star. He then read off the angle (latitude) made on it by a vertical plumbline. The cross-staff, and later, the sextant were improvements on the same idea.

Another method of finding one's position was by "dead reckoning" which is done with no help from the sun or stars. One's point on a chart was worked out by two things - the compass bearing and the speed one had gone. Speed was calculated by watching a piece of wood or sea-weed float past the ship. Then the speed of the ship was worked out. A length of rope weighted with wood was thrown overboard. Tied at regular intervals in the rope were knots. One would then count the number of knots which went over the side. This was checked with the time it took for a half minute glass to empty. In this way the speed was worked out as a "rate of knots."

Up to 1400 few European sailors dared sail out of sight of land, for if they could see nothing but water on all sides they were lost. Little was known of how to use the stars and the winds.

Between about 1200 and 1400, a number of navigational aids and instruments were brought to Europe by the Arabs. The compass first found its way into use in about 1000. It had been known to the Chinese for about 3,000 years, and it was from them that the Arabs obtained the idea. The first type of compass used by European sailors was a magnetized steel pointer floating in water on a small piece of wood. The "needle", attracted by the earth's magnetism, pointed to the north. Thus the difference between that and the direction or course of the ship could be worked out. This crude form of the instrument gave place to a needle swinging on a central pivot above a compass card showing the 32 points. Once the mariner knew what course he ought to be steering, the compass helped him to keep on that course. The greater difficulty lay in working out the direction to steer and then finding out whether the ship was on course. As early as the 13th century, "schools" of chart-makers in Italy and Spain - probably retired sailors - began to make drawings on sheepskin. They drew the ports, harbours, bays, and coastlines they had visited. Gradually they began to join the ports by rhumblines along which the ship was to sail. These portolani were in great demand by medieval sailors.

Selection Number 2 Level 8

The horror which came to all mariners when out of sight of land was eventually overcome. This was done by making use of the astrolabe which was an Arab invention used for measuring the height of the sun and the stars. The Portugese were the first to make use of it which they did by inventing a quadrant (a quarter of a circular astrolabe) which was fitted with sights. The navigator lined these sights up with a star, usually the Pole star, and he then read off the angle (latitude) made on it by the vertical plumbline. The cross-staff and later, the sextant were additional improvements on the same idea.

Another way of finding one's position was by "dead reckoning" which was navigating without reference to any celestial object. One's position on a chart was determined from the compass-bearing and the speed one had travelled in that direction. Speed was estimated by watching a piece of wood or even sea-weed float past the ship. Later the speed of the ship was calculated by throwing overboard a length of rope weighted with a piece of wood. Tied at regular intervals in the rope were knots and by counting the number of knots which disappeared over the side against the time it took for a half-minute sand glass to empty itself, the speed of the ship was calculated as a "rate of knots."

Until 1400 not many European mariners dared to attempt sailing out of sight of land because if they could see nothing except water all around them, they considered themselves lost, for little was known of how to use the stars and the winds.

Between about 1200 and 1400, however, a number of navigational aids and instruments were introduced into Europe by the Arabs. The compass first became used around about 1000. This device had been known to the Chinese for approximately 3,000 years, and it was from these people that the Arabs obtained the idea. The earliest example of a compass used by European mariners was a magnetized steel pointer floating in water upon a small piece of wood. The "needle" attracted by the earth's magnetism pointed towards the north so that the difference between that and the direction or course of the ship could be worked out. This unrefined form of the instrument was replaced by a needle swinging on a central pivot above a compass card showing the 32 points. Once the mariner knew what course he was supposed to be steering, the compass assisted him in keeping on that course. As early as the 13th century, "schools" of chart-makers in Italy and Spain - probably retired sailors - began to produce drawings on sheepskins of the ports, harbours, bays, and coastlines they had visited. Gradually they began to join the ports by rhumblines along which the ship was to sail, and these portolani were in great demand by medieval sailors.

Selection Number 2 Level 10

The horror which afflicted all mariners when out of sight of land was eventually overcome by making use of the astrolabe - an Arab invention used for measuring the height of the sun and the stars. The Portugese were the first people to make use of this invention when they invented the quadrant, (a quarter of the circular astrolabe) which was fitted with sights. The navigator aligned these sights with the star - usually the Pole star - and then noted the angle (that is the latitude) made on it by the vertical plumbline. The cross-staff, and later, the sextant were additional improvements on the same idea.

Another method of finding one's position was by "dead reckoning", that is, without reference to any celestial object. One's position on a chart was determined from the compass-bearing and the speed one had travelled in that particular direction. Speed was estimated by watching a piece of wood or even sea-weed float past the ship. Later the speed of the ship was calculated by throwing overboard a length of rope weighted with a piece of wood. Tied at regular intervals in the rope were knots and by counting the number of knots which disappeared over the side against the time it took for a half-minute sand glass to empty itself, the speed of the ship was calculated as a "rate of knots."

Selection Number 3 Level 6

Zwingli's place was taken by Jean Calvin. He got to be not just head of the Swiss Reformation; he made Geneva the hub of Protestantism in Europe. He gave the Reformed Faith that which Luther and Zwingli did not give it. He gave it organization and discipline. Calvin (1509-1564) was a French lawyer. He was quiet and thoughtful. He brought his law training and knife-like mind to bear on the question of how the church was to rule itself. Thus he drew up a list of rules. These gave the church members the right to elect their own minister or elder. The Catholic hierachy of bishops, priests, and deacons was repulsive to Calvin.

But Calvin's rules of conduct were harsh and strict in the extreme. One could be accused of many things. Some were: card playing, gambling, dancing, or wearing bright clothes. One could be accused of even mild statements of anger or pleasure. Such a person could be tried by a ruling council. If he was found to be guilty, he could get harsh punishment. This could happen in Geneva; here, Calvin had set up a Church Republic (theocracy). This meant that the state was run on God's laws. These laws were explained and carried out by church officials. They were based on the belief that God was above man. Hence his laws should govern all men. The study of the Bible was strongly urged. It was, said Calvin, like glasses to a near-blind man, was the only means a Christian had of seeing God.

In 1536 Calvin set down the beliefs and practices of his faith in a book. It was called the Institutes of the Christian

Selection Number 3 Level 6

Religion. The belief that is central to Calvinism is that of predestination. This means that some men (the elect) are predetermined or chosen by God for eternal salvation. The rest are denied this hope forever. And there is not a thing they can do about it. At first, this may seem to be a depressing sort of faith. More so, if you think you are not one of the chosen. It may stop you from trying to be good since you are eternally dammed anyway. But it seemed to have the opposite effect. Those who believed the Calvinist faith thought that they were the elect. This gave them an inner strength and confidence. Also it gave them some intolerance of those who were not of the chosen.

Calvinists were strong and stubborn in the face of persecution. These traits were the same as the first Christians showed. Geneva was now the centre of the growing Protestant faith. Bibles books and pamphlets poured from the presses for people to read all over Europe. Scholars used to go to Italy to learn Greek or Roman thought. Now they came to Geneva to learn of Calvinist theology.

Selection Number 3 Level 8

Zwingli's place was taken by Jean Calvin who not only got to be the head of the Swiss Reformation but made Geneva the mainspring of European Protestantism. He gave the Reformed Faith something which neither Luther nor Zwingli gave it, which was organization and iron discipline. Calvin (1509-1564) was a Frenchman, quiet and thoughtful. He had been trained as a lawyer and he brought his legal training and knife-like mind to bear on the question of how the new church was to govern itself. He drew up a list of rules which gave the church members the power to elect their own minister or elder for the Catholic hierachy of bishops, priests, and deacons was repulsive to the Calvinist.

But Calvin's rules of behaviour were severe and rigid in the extreme. One could be charged with card-playing, gambling, dancing, wearing bright clothes, swearing, or giving way to mild expressions of anger or pleasure. Such a person was likely to be brought in front of a Ruling Council, tried and, if found guilty, severely punished. This was possible in Geneva where Calvin had set up a Church Republic (sometimes called a theocracy) in which the state was run on God's laws interpreted and carried out by church officials. It was based on the belief that since God was above man, His laws should govern all men. The study of the Bible should be strongly urged, for it was, said Calvin, like glasses to a near-blind man; it was the only means the Christian had of seeing God.

Selection Number 3 Level 8

In 1536 Calvin set down the beliefs and practices of the Calvinist faith in a book with the title The Institutes of the Christian Religion. The belief that is central to the Calvinist faith is that of Predestination which means that some men (the elect) are predetermined or chosen by God for eternal salvation. The rest have no hope of salvation, forever, through no fault of their own. Also, they can do nothing about it. At first this must seem a depressing sort of a faith. More so, if you think that you are not among the chosen. It might stop you from being good for you are eternally dammed anyway. In fact, it seemed to have the opposite effect; those who accepted the Calvinist faith believed that they were the elect. This belief gave them an inner strength and confidence. It also gave them a certain intolerance of others who were not of the chosen.

Calvinists were strong and stubborn in the face of persecution just like the early Christians. Geneva became the centre of the growing Protestant faith. Bibles, books and pamphlets poured from its presses to be read all over Europe. Scholars who had once gone to Italy to learn of Roman and Greek thought, came now to Geneva to learn Calvinist theology.

Selection Number 3 Level 10

Zwingli's place was taken by Jean Calvin who not only assumed the leadership of the Swiss Reformation but also made Geneva the mainspring of European Protestantism. He gave the Reformed Faith something which neither Luther nor Zwingli gave it which was an organization and an iron discipline. Calvin (1509-1564) was a Frenchman, quiet and thoughtful. He had been trained as a lawyer and he brought his legal training and knife-like mind to bear on the question of how the new Church was to govern itself. He drew up a list of rules which gave the congregation the power of electing its own minister or elder, for the Catholic hierarchy of bishops, priests, and deacons was repulsive to the Calvinist.

Nevertheless, Calvin's rules of behaviour were severe and rigid in the extreme. Any person accused of card-playing, gambling, dancing, wearing colourful clothes, swearing or giving way to expressions of anger or pleasure, however mild, was likely to be brought before a Ruling Council, tried, and if found guilty, severely punished. This was possible in Geneva, where Calvin had organized a Church Republic (sometimes called a theocracy) in which the state was run on God's laws interpreted and carried out by church officials. It was based on the belief that since God was superior to man, His laws should govern all men. The study of the Bible was strongly urged, because it was, said Calvin, like spectacles to a near-blind man, for it was the only means the Christian had of seeing God.

Selection Number 3 Level 10

In 1536 Calvin set down the beliefs and practices of the Calvinist religion in a book titled The Institutes of the Christian Religion. The belief that is central to Calvinism is that of Predestination. This means that some men (the Elect) are predetermined or selected by God for eternal salvation. The rest of the people are denied the hope of salvation for ever, through no fault of their own, and furthermore, they can do nothing about it. At first sight this may seem a depressing sort of faith - particularly if you suspect that you are not among the chosen, for it might discourage you from being good since you are eternially dammed anyway. However, it seemed to have the opposite effect; those who accepted the Calvinist faith believed that they were the elect - a belief that gave them an inner strength and confidence, and a certain intolerance of others who were not among the chosen.

Calvinists showed the same obstinacy and fortitude in the face of persecution as the early Christians. Geneva became the centre of the expanding Protestant faith. Bibles, books and pamphlets poured from its presses for distribution throughout Europe; scholars who had once gone to Italy to learn about Greek and Roman thought, came now to Geneva to learn Calvinist theology.

Selection Number 4 Level 6

Henry was now in complete control of church and state. He had carried through the Reformation with the consent of Parliament. But he was, in fact, a tyrant who would suffer no opponents. While he reigned, he put to death Epsom and Dudley. These men were two of his father's faithful servants. He would have executed Wolsey too, but this man died on his way to London; he was on his way there to be tried. And Henry had More's head cut off. Later he beheaded Thomas Cromwell, the third of his chancellors. Henry divorced two of his six wives. The first one was Catherine, and then Ann of Cleves. He called Ann "that fat Flanders mare" and divorced her within three months of meeting. He beheaded two of his wives. First was Ann Boleyn in 1536 for adultery. Then he had Catherine Howard's head cut off in 1542 for the same reason. But she was charged with treason. In spite of all this, Henry was well liked. He would not have dared set himself up in the Pope's place had he not sensed that the nation would stand by him.

Henry used Parliament to carry through his reforms. In this way, he and Parliament were partners. He did not think this would make it conscious of its own importance. But from then on Parliament wished to be conferred with on all important matters of state.

Henry won the support of the merchant and landowning classes in 1536. At this time he began to suppress small monasteries. Their wealth was too tempting for the king. They owned a third of all the land. There were also good reasons for such action.

Selection Number 4 Level 6

Most monasteries had too much wealth for their own good. They had become objects of scorn for men of faith and honor. Two such men were Erasmus and Thomas More.

From 1536 to 1539 close to 400 minor houses were closed. Their land was sold to local gentry. Then larger houses like St. Alban's and Fountain Abbey were sold. The gold and silver cups and bowls were melted down and sent to London. The illuminated manuscripts were burnt or used to wrap things. The refectory tables, chairs, beds, settees, pewter, and window glass were sold locally. The proceeds went to fill the King's coffers. While most of it went to pay Henry's debts, some went to start new bishoprics. Some went to found new schools; some went to build a navy. The one protest against these acts of the king was in the north. There the lawyer Robert Aske led the Pilgrimage of Grace. When he sold the church land to the greedy gentry, Henry won their full support.

But from first to last the king made one thing clear. He said the church in England was to break from the Pope, but it would not break with the Catholic faith. In this sense, Henry's reform of the church was not the same as Luther's or Calvin's. He drew up a list of Catholic doctrines. All had to believe these or be burnt as a heretic. But it did not matter now what the king might say. He could not hold up the tide of change in the church. He himself had, as it were, knocked down the sea wall.

Selection Number 4 Level 8

Henry was now in complete control of the Church and the nation, and although he carried through the Reformation with the consent of Parliament, he was, in fact, a tyrant. He would suffer no opposition. During the course of his reign Henry executed two of his father's faithful servants, Empson and Dudley, would have executed Wolsey had he not died on his way to London to be tried, beheaded More, and then (1540) Thomas Cromwell, the third of Henry's chancellors. He divorced two of his six wives. The first was Catherine, and then Ann of Cleves whom he called "that fat Flanders mare" and divorced within three months of meeting. He beheaded two of his other wives. These were Ann Boleyn in 1536 for infidelity and Catherine Howard in 1542 for the same reason (but on a charge of treason). But in spite of all this Henry was popular, and he would not have set himself up in the Pope's place had he not sensed that the nation would support him.

In using Parliament to carry through his reforms, Henry took Parliament into partnership with himself. However, he did not know that this would make it conscious of its own importance. From this time on, Parliament wanted to be consulted on all important matters of state.

Henry won the support of the merchant and landowning classes in 1536. This is when he began the suppression of the smaller monasteries. Their wealth - they owned a third of the land of the whole country - was too much of a temptation for Henry. Besides there were worthier reasons for such a plan. Most, though

not all, monasteries had become too wealthy for their own good, and they were now the objects of scorn for men of faith and integrity like Erasmus and Thomas More.

Between 1536 and 1539 close to 400 minor houses were closed and the property sold to the local gentry after which followed the bigger houses like St. Alban's and Fountains Abbey. The gold and silver cups and vessels were melted down and sent to London. The illuminated manuscripts were burnt or used as wrapping. The refectory tables, chairs, beds, settles, pewter, and window glass were sold locally. The proceeds went to fill the King's coffers. While most of it went to pay the King's debts, some of it went to found new schools, and some went to build a navy. The one protest against Henry's acts was in the north where the lawyer Robert Aske led the Pilgrimage of Grace. By selling church land to the avaricious gentry, Henry had won their support.

But from first to last, the King made it clear that the church in England was breaking from the Pope, but it was not breaking with the Catholic faith. In this sense, Henry's Reformation was not the same as Luther's or Calvin's. Henry himself drew up a list of Catholic doctrines which everyone must believe or be burnt as a heretic. But no matter what he might decree, the King could not hold up the tide of Protestantism, especially now that he himself had, as it were, knocked down the sea wall.

Selection Number 4 Level 10

Henry was now in absolute control of Church and nation. And although he had carried through the Reformation with the consent of Parliament he was in reality a tyrant who would tolerate no opposition. During the course of his reign, Henry executed two of his father's faithful servants. Empson and Dudley, would have executed Wolsey had he not died on his way to London for trial, beheaded More and than (1540) Thomas Cromwell, the third of Henry's Chancellors. He divorced two of his six wives; first Catherine, and later Ann of Cleves whom he called that "fat Flanders mare" and divorced within three months of meeting. Henry beheaded two of his other wives: Ann Boleyn in 1536 for infidelity and Catherine Howard in 1542 for the same reason (but on a charge of treason). Despite these actions, however, Henry was popular and he would not have dared set himself up in the Pope's place had he not sensed that the people of the nation would support him.

In using Parliament to implement his reforms, Henry took Parliament into partnership with himself. However, he did not realize that this would make Parliament conscious of its own importance. From that moment on, Parliament desired to be consulted on all important matters of state.

Henry acquired the support of the merchant and landowning classes when in 1536 he began the suppression of the smaller monasteries. Their wealth - they owned a third of the area of the entire country - was too much of a temptation for Henry. In addition, there were other worthier reasons for such a

policy for most, though not all, monasteries had become too wealthy for their own good. Consequently, they had become objects of scorn for men of faith and integrity like Erasmus and Thomas More.

Between 1536 and 1539 nearly 400 minor monasteries were closed and their land sold to the local gentry after which followed the bigger houses like St. Alban's and Fountain Abbey. The gold and silver cups and vessels were melted down and sent to London, the illuminated manuscripts were burnt or used as wrapping, and the refectory chairs, tables, beds, settles, pewter, window glass were sold locally and the proceeds forwarded to fill the royal treasury. While most of the money went to pay Henry's debts, some of it went to establish six new bishoprics, some to found new schools and some to building a navy. The only protest against Henry's policy was in the north, where the lawyer Robert Aske led the Pilgrimage of Grace. By selling monastic land to the avaricious gentry Henry won their support.

From first to last, however, Henry made it understood that although the Church in England was breaking from the Pope, it was not breaking with the Catholic faith, and in this sense, Henry's Reformation was very different from Luther's or Calvin's protests. Henry personally drew up a list of Catholic doctrines which everyone must believe or be burnt as a heretic, but whatever he might decree, Henry could not restrain the tide of Protestantism, particularly now that he himself had, as it were, knocked down the sea wall.

Selection Number 5 Level 6

The offer was accepted. A Scots force crossed the border and reached Lancashire. This second civil war (1648) was soon brought to a close. The army leaders thought that Charles would not give in to their demands. Thus they planned to bring him to trial.

You may wonder on what charge a king may be tried. The charge was treason. This meant that the king took more power than the people gave him. Also he was charged with making war on his subjects. While on trial, Charles would not defent himself for he claimed the court was not legal. He was found guilty. On January 30, 1649 Charles was led from the Banqueting Hall in Whitehall to a scaffold built outside. There Charles had his head cut off. It was done by two masked headsmen brought from France. It was done amidst the shocked silence of the people below. The first part of the English Revolution was over.

For the next five years Cromwell ruled with the name of Lord Protector. During this time, he united England, Wales, Scotland, and Ireland. They all then came under one Parliament. He called three Parliaments and restored a House of Lords. He wanted badly to unite the country. He wanted to lead it from the misery caused by the wars of the past fifteen years. So he broke the country into eleven districts; each had a major-general in charge. Cromwell thought that peace and goodwill could be brought back to the land. But he thought that everyone must live and worship as the Puritans did. Even so, Jews were allowed back in. They had been banned for three hundred years. And religious toleration was decreed for all but unitarians, atheists, the most stubborn Anglicans, and Roman Catholics. Cromwell zealously set out to

stamp out wickedness. He thought God was his guide. Games and recreations which gave pleasure were frowned upon. This was because pleasure meant self-indulgence which was a sin. The feast days of Easter and Christmas and other holy days were banned. This was done because it was thought that these days were inventions of the Pope.

Cromwell gave England respect abroad; he rebuilt her navy. He sent English ships all over the world to win trade. He sent ships to the East Indies where the Dutch had a monopoly. But he tried to force the English into one mold; he tried to make them all good Puritans. We now know that man can't be forced to be good. Each must find God in his own way. The people of Puritan England got tired of Cromwell's ways. When he died in 1658 the heavy hand he had laid on the hearts of the English was gone. There was no man able enough to take his place. Two years from his death, the son of Charles 1 was asked to come back. He had been exiled to Holland. He was then put on the throne, the third of the Stuart line.

The offer was accepted and a Scots force crossed the border and reached Lancashire. This second civil war (1648) was quickly brought to a close. The army leaders, convinced that Charles would never be persuaded to give in to their demands, decided to bring him to trial.

You may wonder on what charge a King could be brought to trial. The charge was treason, that is, of taking more than the limited power which was given to him by the people. He was also charged with making war on his subjects. Throughout the trial, Charles would not defend himself, for he claimed that the court had no legal standing. The King was found guilty, and on January 30th, 1649, he was led from the Banqueting Hall in Whitehall on to a scaffold built outside. There Charles was beheaded by two masked executioners, brought over from France, amidst the shocked silence of the people below. The first part of the English Revolution was over.

For the next five years, Cromwell ruled with the title of Lord Protector. During this time, he united England, Wales, Scotland, and Ireland under one Parliament. He called three Parliaments and brought back a House of Lords. He wanted badly to unite the country and lead it out of the misery caused by fighting of the past fifteen years. Thus, he divided the country into eleven districts, each with a major-general in charge. Cromwell thought that the restoration of peace and goodwill could only be achieved by making everyone live and worship as the Puritans lived and worshipped. Even so, Jews

were allowed back in after 300 years. Religious toleration was decreed for all except unitarians, atheists, the most stubborn Anglicans, and Roman Catholics.

Cromwell zealously set out to stamp out wickedness for he believed God was guiding his actions. Games and recreations which gave pleasure were discouraged, for pleasure meant self-indulgence, which was sinful. The feast days of Christmas and Easter, and other Holy days, were considered inventions of the Pope, and therefore forbidden.

He made England respected abroad, and rebuilt her navy. He sent English ships all over the world to win trade, especially to the East Indies where, before, the Dutch had a monopoly. He tried, however, to force the English into one mould; he tried to make them all good-living Puritans. We know now that men cannot be bullied into goodness, for each must be allowed to find God for himself. The people of Puritan England got tired of Cromwell's methods. When he died in 1658, the heavy hand he had laid on the hearts of Englishmen was removed. There was no man able enough to succeed him, and within two years of Cromwell's death, the son of Charles 1 was invited to return from exile in Holland. He was restored to the throne as Charles 11, the third of the Stuart line.

Selection Number 5 Level 10

The offer was accepted, and a Scots force crossed the border and reached Lancashire. This Second Civil War (1648) was quickly brought to a close and the army commanders, convinced that Charles would never be persuaded to give in to their demands, decided to bring him to trial.

You may wonder on what charge a king could be brought to trial. The charge was treason; that is, of usurping more than the limited power which was entrusted to him by the people; also of making war on his subjects. Throughout the proceedings Charles refused to defend himself, for he claimed that the court had no legal standing, but nevertheless, the King was found guilty. On January 30th, 1649, Charles was taken from the Banqueting Hall in Whitehall on to a scaffold erected outside, and here he was beheaded by two masked executioners, brought over from France, amidst the shocked silence of the people below. The first part of the English Revolution was over.

Throughout the next five years Cromwell ruled England with the title of Lord Protector. During this period, he united England, Wales, Scotland, and Ireland under one Parliament, and he called three Parliaments and restored a House of Lords. He wanted desperately to unite the country and lead it out of the misery caused by the fighting of the past fifteen years. Accordingly, he divided the country into eleven districts, each with a major-general in charge. Cromwell believed that the restoration of peace and goodwill could only be achieved by making everyone live and worship as the Puritans lived and worshipped.

Selection Number 5 Level 10

Nevertheless, Jews were readmitted to the country after 300 years, and religious toleration was decreed for all except unitarians, atheists, the most obstinate Anglicans, and Roman Catholics. Cromwell zealously set out to stamp out wickedness, for he believed God was guiding his actions. Games meant self-indulgence, which was sinful. The feast days of Christmas and Easter, and other holy days were considered inventions of the Pope and consequently forbidden.

Cromwell made England respected abroad, rebuilt her navy, and sent English ships all over the world to win trade, especially to the East Indies where previously the Dutch had had a monopoly. He attempted, however, to force Englishmen into one mold, for he tried to make them all good-living Puritans. We realize nowadays that men cannot be bullied into goodness; each must be permitted to find God for himself. The people of Puritan England became weary of Cromwell's methods. When he died in 1658, the heavy hand he had laid on the hearts of Englishmen was taken away, and there was no man with sufficient ability to succeed him. Within two years of Cromwell's death, the son of Charles I was invited to return from exile in Holland, and was restored as Charles II the third of the Stuart line.

Selection Number 6 Level 6

The first question which faced the deputies was how the votes for the new laws should be counted. The Third Estate did want a change. These were mainly well-schooled, wealthy men. They knew that if each estate cast its vote separately, they would lose. This was the way it was done in the old days. It would be two votes to one for the nobles and clergy would vote the same way each time. But if the three groups had a vote as one large group this would not happen. The Third Estate with twice as many members would need only a few more votes. They could get these from the Nobles or Clergy and they could then outvote the other two groups.

The debate on this main point lasted a few weeks. Then the Third Estate made plans to break away and call themselves the National Assembly. The King did not like this. He said the three groups should remain separate. But, not for the last time, the King's wish was ignored. Some of the Nobles and Clergy joined the Assembly and they all met in the royal tennis court and took an oath. This was called the "Tennis Court Oath." They swore not to disperse until they had given France a constitution. The King sent an order for them to leave but their leader, Count Mirabeau, (a Noble of the Third Estate) said, "No." He said, "We are here by the will of the people. Nothing but bayonets will drive us away." They did not leave, and went to talk of reforms that were needed to deliver France from bankruptcy.

So far, the struggle for a reform of the "ancien regime" was conducted by the wealthy middle class. They were the

elected deputies to the Estates-General. However, from now on another French element joined in. These people were the Paris mob. They were the artisans and small shopkeepers. They had a great interest in what was going on in Versailles, which was only twelve miles from Paris. After the members of the National Assembly refused to leave,a rumor reached Paris that the King would use force to try to make them go. Troops were seen near Paris and people became nervous.

A great many were unemployed, the crops had failed, and there was not much bread to eat. Riots broke out, and in no time a large disorderly crowd marched through the streets looting shops and large homes. The crowd then made for the Bastille which was the state prison. It had only seven prisoners but it was a symbol of the tyranny of the "ancien regime." An attack was made on it, and the Governor was killed. The men held there were released. "This is a revolution."

Selection Number 6 Level 8

The first question which faced the deputies was how the votes for the new laws should be counted. The difficulty was that the Third Estate, which was composed largely of the best educated men as well as the most wealthy men in France, knew that if each estate cast its vote separately as in the old days, it would be defeated every time. If, on the other hand, the three orders voted as a single body, then the Third Estate which had double representation, need only acquire a few more votes from either nobles or clergy to outvote the other two.

The debate on this vital issue lasted some weeks and then the Third Estate decided to break away and call itself the National Assembly. The King objected, insisting that the three orders should remain apart. But, not for the last time, the King's wishes were ignored. The members of the National Assembly were joined by a number of sympathetic nobles and clergy. They all gathered in the royal tennis court and took an oath (the Tennis Court Oath). They swore not to disperse until they had given France a constitution. When the King sent an order for them to disperse, their leader, Count Mirabeau (a noble elected to the Third Estate), said, "We are here by the will of the people. Nothing but bayonets will drive us away." They did not disperse, but went on to discuss what reforms were necessary to deliver France from bankruptcy.

Selection Number 6 Level 8

So far the struggle for a reform of the "ancien regime" had been led by the wealthy members of the middle-class acting as elected deputies to the Estates-General. But from now on, a new group forced its way on to the French scene. This was the Paris mob made up of artisans and small shopkeepers who were intensely interested in what was going on twelve miles away in Versailles. After the refusal of the National Assembly to disperse, a rumor reached Paris that the King was going to use bayonets to try and make it obey his order. Troops were seen to be gathering on the outskirts of Paris and the people of Paris became nervous.

Paris had many unemployed at that time. The failure of the harvests was causing a shortage of bread. Rioting broke out. Within no time a large disorderly crowd was marching through the city. They looted shops and large houses. The crowd then made for the Bastille, the state prison. Although it contained only seven prisoners, it stood for the tyranny of the "ancien regime." The fortress was attacked, the governor killed, and the inmates set free. "This is a revolt." exclaimed the King. "No, sire," replied a courtier, "this is a revolution."

Selection Number 6 Level 10

The first question which faced the deputies was how the votes for the new laws should be counted. The difficulty was that the Third Estate, which was composed largely of the best educated as well as the most prosperous men in France, knew that if each estate cast its vote separately as in the old days, it would be defeated every time by two votes to one, for the nobles and the clergy would vote together every time. If, on the other hand, the three orders voted as a single body, then the Third Estate, which had double representation, need only acquire a few additional votes from either nobles or clergy to outvote the other two.

The debate on this vital issue lasted several weeks until the Third Estate decided to break away and call itself the National Assembly. The King objected, insisting that the three orders should remain apart. But, not for the last time, the King's wishes were ignored; the members of the National Assembly were joined by a number of sympathetic nobles and clergy and all gathered in the royal tennis court and took an oath (the Tennis Court Oath), swearing not to disperse until they had given France a constitution. When the King sent an order for them to disperse, their leader, Count Mirabeau (a noble elected to the Third Estate), declared, "We are here by the will of the people. Nothing but bayonets will drive us away." They did not disperse and went on to discuss what reforms were necessary to deliver France from bankruptcy.

Selection Number 6 Level 10

So far, the struggle for a reform of the "ancien regime" had been conducted by wealthy members of the middle-class acting as deputies to the Estates-General. From now on, however, a new element forced its way on to the French scene. This was the Paris mob: the artisans and small shopkeepers who were intensely interested in what was going on twelve miles away in Versailles. After the refusal of the National Assembly to disperse, a rumor reached Paris that the King was going to use bayonets, to try to make it obey his order. Troops were seen to be gathering on the outskirts of Paris and the people of Paris became nervous.

Paris had many unemployed at that time, and the failure of the harvests was causing a shortage of bread. Rioting broke out and within no time a large disorderly crowd was marching through the city, looting shops and large houses. The crowd then made for the Bastille, the state prison, which, although it contained only seven prisoners, symbolized the tyranny of the "ancien regime." The fortress was attacked, the governor murdered, and the prisoners released. "This is a revolt!" exclaimed the King. "No, sire," replied a courier, "this is a revolution."

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Title of Thesis

USE OF THE FLESCH READING EASE FORMULA IN SELECTING SOCIAL STUDIES MATERIAL

Author [redacted]

William John Bendall

October 29, 1973