COMPARATIVE STUDY OF A HIGH SCHOOL TEXTBOOK IN AMERICAN HISTORY WITH A WORK DESIGNED FOR ADULT READING IN THE SAME FIELD WITH RESPECT TO BURDEN OF DETAIL AND VOCABULARY DIFFICULTY.

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CHAPTER I

INTRODUCTION

A. Background of the Study. The Textbook Problem.

One of the greatest problems confronting the teachers of history and the publishers of history textbooks is that of having the textbook so constructed in the presentation and organization of its material that there will be the most successful assimilation of concepts by the reader and the fewest obstacles to interest. While an adequate textbook must possess other essentials besides appeal to interest, the ultimate aim of the textbook is largely defeated if obstructions to interest are present in appreciable or large quantities. Hence a chief concern has been to obtain textbooks in history which possess the additional feature of being calculated to arouse and sustain the interest of the student in the subject matter treated.

On the matter of interest and the textbook Schorling and Edmundson[1] make this statement:

"The new education, with its emphasis on the

1. Schorling, Raleigh and Edmundson, J. B. N.S.S. E. Yearbook, 1930, Chap. III.

child-centered school, has forced authors to give careful consideration to making the textbook interesting to children. In fact, the modern textbook hasn't a chance unless it can make reasonable claims that nothing has been overlooked in the way of motivation. ... A fundamental principle of interest is understanding, hence the ... attention given to vocabulary."

Educators have long realized the existence of the textbook problem and have attacked it through studies on general types of material included in the textbook, studies to discover the deficiencies in vocabulary, subject matters and organization, and studies or a more constructive nature designed to remedy the deficiencies discovered. In recent years the large per cent of material on military and political affairs in the history textbook has been attacked, and an attempt made to substitute material of a social and economic nature. Rugg[1] implies th t most history textbooks are too brief and recommends that they be "made up of a wealth of anecdote, description and narration about a few worth-while matters". In his opinion a "demand should be made of textbook makers that they include in their textbooks these rich human episodes."

The Importance of the Textbook.

To some these very numerous demands for change in textbooks may appear to be unnecessary agitation about a defunct device. Especially in history has a movement begun to throw off the dependence on one book and to become independent

1. Rugg, H. O., "Social Studies in the Elementary and Secondary School", 32nd Yearbook, N.S.S.E.

through the use of more than one or even many. Dr. S. L. Pressey's[1] statement concerning the importance of the textbook in the college system may well be applied to its general use in high schools. He states: "In spite of much agitation to the contrary it is still true that the textbook is a common medium of instruction in the college, and the most convenient and most adequate single statement of content and arrangement of material in the average college course. It would seem natural, therefore, in considering problems of teaching, to make some study of college textbooks as they function as aids - or sources of difficulty - in college instruction."

The textbook occupies a significant position in the program of American education; in fact its place in our educational practice in far more important than its position in the systems of many foreign countries. In thousands of our classrooms it determines the content of instruction as well as the teaching procedure.

Our teachers, either voluntarily or necessarily, lean to an enormous extent upon the textbook[2] as a teaching tool. For many reasons the textbook is extremely important in our system of education. In spite of legal requirements that teachers of high school subjects have a prescribed preparation in the subjects they are to teach, we still find

1. Pressey, S. E., "Concerning the Burden of Detail in Certain Textbooks", Research Adventures in University Teaching.

2. Since this study is interested in history textbooks only, let us consider that when textbooks and teachers are mentioned, history textbooks and teachers of history are meant.

many who are required to teach subjects for which they have had little or no academic training. Especially has this seemed true of teachers of history for the opinion still prevails in some places that while specially trained teachers in other required courses are necessary, a teacher of history needs only the ability to assign a certain number of pages in the text and hear it read in a round-robin fashion when the class meets. For the teacher who lacks ability or is deficient in preparation for his work, close adherence to a good textbook is highly desirable, and necessary.

Even in the cases of trained and experienced teachers who are familiar with the sources, the textbook must still be relied upon almost wholly in the numerous small systems where the sources do not exist. In these schools dependence on the textbook is, of a necessity, great because of the scarce, unsuitable and inadequate reference materials.

In the states where texts are adopted for uniform use throughout the state the textbook still occupies an important position, for such adoption requires the teacher to teach the text.

Lack of competent supervision may be responsible for the too exclusive dependence on textbooks. Where stimulation and guidance from the supervisor is lacking the weak teacher has yet one mainstay - the textbook.

Poor formulation of objectives may be another cause of

great dependence on the textbook; even when the courses of study indicate definite objectives they often fail to show in detail how to put them into practice and the classroom teacher adopts the obvious and forces a memorization of the facts in the text. The remedy for this situation, Prof. Bagley states, consists for the present in amplifying the method side of the course of study.[1]

These, then, are some of the reasons for the important position held by the textbook in American education. Whipple[2] aptly points out:

"In view then of the importance of the textbook in our scheme of education, it is apparent that one of the most effective ways for improving the content and method of instruction is to place better textbooks in the hands of teachers and pupils. One way to do this is to encourage the preparation of textbooks of superior quality."

An ultimate aim of this study is to indicate how the quality of a textbook in American history may be improved in one respect.

Textbook Deficiencies.

Among the most stubborn obstacles to clear assimilation, and to interest found in textbooks by research workers are advanced vocabulary, the presence of technical terms and vast amount of detail.

1. Bagley, W. C., N.S.S.E. Yearbook, 1930, Chap. 2.
2. Whipple, G. N.S.S.E. Yearbook, 1930, Introduction.

General Vocabulary Difficulty.

The vocabulary of the textbooks for high school use has been the subject of many studies but no one seems to have been able to make constructive suggestions concerning grade placement for high school textbooks. In fact there appears to be no definite knowledge as to what constitutes general vocabulary difficulty. For a while it was assumed that the presence of a high percentage of infrequently used words accounted for this general difficulty and studies were made of textbooks using the Thorndike Word Book to discover the amount of infrequently used words. Witty and La Brant attempted to determine something of the vocabulary demands presented by material written for adults. Using the Thorndike Word List they analyzed twelve well-known books which, in the opinion of experienced teachers of English, represented the superior and inferior in current fiction and older novels of the better class; they found "that the so-called classics apparently present no more difficulties from this vocabulary standpoint than do popular modern novels. Moreover, Harold Bell Wright and Zane Grey make similar demands on the reader (as far as the use of unusual words is concerned) as do James Barrie and Edith Wharton." They concluded that "elements other than vocabulary - social content, sentence structure, style - determine the choice of reading materials

1. Witty, Paul A. and La Brant, Lou, "Vocabulary and Reading", School and Society, 31:268-72.

for persons above fourteen years of age; "and that perhaps the problems of vocabulary development may have recieved too much emphasis; ... that it is the way in which words are used (not the number alone) that determines 'how we think'".

Technical Vocabularies in the Textbook.

Another phase of vocabulary difficulty study has been the determination of words peculiar to a certain subject, that is, the technical vocabulary of that subject. It has been found that certain subjects, notably the sciences and history, have a high per cent of technical words, a thorough knowledge of which is necessary if the student is to progress successfully in that subject. Pressey[1] points out the increased difficulty encountered by the student of any of the sciences or history; while the acquisition of a 800-1000 word vocabulary in a new language during one year is considered to be worthy by teachers of foreign languages, the history student "has as great or greater vocabulary to master wholly aside from the acquisition of a great amount of subject matter".

Burden of Detail in Textbooks.

Other studies have resulted in indictments of certain textbooks because of the vast amount of detail they contain. The writer of this study, as a teacher of history, has felt that the textbooks written for the use of history classes have been loaded by their authors with a far greater burden of

1. Pressey, L. C., "Determination of the Technical Vocabulary of School Subjects", Ohio State University Educational Research Bulletin, April 30, 1924.

detail than their consensed forms were able to support. It was felt that the inexperienced student using the condensed textbook weighted with the detail, has little chance of distinguishing sucessfully the relative value of material of great consequence and that of little. The writer knows of no definite training for the retention of detail given to the pupil in the elementary grades, but it has appeared, more often than not, that after he reaches high school, he selects the detail for emphasis, entirely disregarding the great movement. Details in textbooks do exist in great enough quantity toobscure almost entirely the matter of great moment. If one should grant that the details should be retained he would stand aghast before the array of details revealed by the studies of these textbooks.

Textbook Presentation of Subject Matter and General Educational Objectives.

The subject matter presented in the textbook and the method of presentation should show the influence of the education theory in vogue; this theory lays a minimum of emphasis upon the systematic mastery of knowledge and a maximum of emphasis upon the all-round growth and development of the individual, especially through meeting and solving the problems that arise in the course of his daily life.
But when detail plays an important part in the subject matter presented the author obviously has mastery of subject matter as an aim rather than all-round growth of the individual.

Textbook Presentation of Subject Matter and Objectives in Teaching History.

There is striking incongruity also between the presentation of material in history textbooks and the most usually accepted objectives for teaching history. One value of history most widely accepted is the utilitarian value of history; that is, its use to understand and appreciate the institutions of past and present - our "social heritage" as Finney puts it-, which appreciation may aid in the solution of present-day problems. The contribution to such appreciation made by loading subject matter with the names of minor personages, out of-the-way places and dates stated to the very day, would be not only negligible but negative.

This excessive detail in the textbook is at variance with another objective of history; i.e., reflective thinking. The writer wishes to note here that reflective thinking is more valuable as a method in history than as an objective and as a method it is likewise opposed by the "detail" style of presentation. Certainly the student is not aided in attaining this objective of thinking reflectively by the style of presentation attacked in this study. As to the use of reflective thinking as a method of gaining correct attitudes in history, the detail in the subject matter presents a distinct hinderance. If the student is successful in perceiving causal relationships in history, if he can see that

history is often a series of problems, he succeeds in spite of numerous detail and not because of it.

Psychological Aspects of Textbook Presentation of Subject Matter.

The average writer of history textbooks appears to pay very little attention to the psychological aspects of textbook presentation of material. He hinders the pupil's chance of understanding the gross situation by his use of technical terms, difficult vocabulary and abundant detail. Some of the detail included cannot be said to be actually irrelevant but it may detract from the situation rather than enchance it. The author sacrifices the interest of the student when he presents material difficult of understanding. Frequently the arrangement of the material in the text defies the order which psychology has found to be the best.

This study is concerned primarily with only one aspect of the psychological presentation of subject matter by the textbook, namely, the burden of detail as it consists of names of people, places and dates. Since the textbook occupies the important position here-to-fore pointed out, the conscientious, misguided teacher relying on it greatly for content may be disposed to require the history student to remember a majority of the persons, places and dates. The student who is anxious to please may approach success in this requirement but is doomed to have nothing of real value from

his history course after he has finished it. Whatever details appear in the subject matter should contribute to the understanding of the large topic; after this understanding is reached the usefulness of the detail ends. Hence the student who is required to concentrate on the learning of detail probably does not have the large meaning developed. Psychological experiments have demonstrated that few details are retained in the memory; that which is retained is the large meaning. It is not difficult to see, then, what happens to the student who is the victim of detail learning; after having missed the real value of the course by failing to have large general ideas and attitudes formed, he finds that the thing he has learned eludes his memory after a short time.

Perhaps the textbook writers have assumed that teachers of history will be able to adapt the detail-laden textbook to the psychological principles of learning which are now accepted. For the inexperienced, untrained teacher, probably located in a small school system with few reference facilities, this is too great a transition to expect; if the textbook presents details, that is probably what the pupil will be required to learn. Thus we see the real situation is dependence upon the textbook for various reasons and that it is entirely antagonistic to the expectation of the textbook writers that the teachers will adapt the textbook to the accepted aims of education and history and the psychological principles of learning.

Reasons for Interest in Present Study.

For various reasons the writer became interested in comparing the textbook adopted by the state of Kansas for American history classes in high school with a book on the same subject but intended for adult reading. Would the adult book have as many details as the text book ? This appeared to be a valid comparison in the light of Bobbit's theory[1] of the determination of curriculum content. "The business of education today is to teach the growing individuals ..... to perform efficiently those activities which constitute the latest and highest level of civilization. ..... The curriculum is that performance of activities in their earlier stages out of which mature performance grows." In one of these investigations performed under Bobbit's supervision, to determine the major fields of human concern according to the evidence from periodical literature, it was discovered that vision was one of the most important whose sub-divisions were partially listed as: literature, drama, libraries, periodicals, newspapers. Most lists of objectives for teaching of history recognize the importance of vision as a field of human activity in that reading for leisure time is considered of more or less importance according to the maker of the list. Likewise more people will be reading material of a historical nature if they come under the influence of the American Library Association, for in a course of study designed for adults

1. Bobbit, Franklin L., "Curriculum Investigations", Supplementary Educational Monographs, No. 31 - 1926.

George H. Locke[1] urges that adults read more history, especially the history of other nations, because in his opinion, "what the world needs in its critical situation today is more knowledge of its neighbors, their orgin, their struggles and their ideals."

A second reason, for the writer's interest in comparing the text book with the adult book were statements from other investigators of a challenging nature which suggested such a study. Clucas[2] in a study of factual burden of text books asserts, "The average text book in American history with well over a thousand mentions of dates is quite different from the average historical writing." In another connection in the same study he delivers the opinion that the "date load" in school texts which the children have to contend with is much greater than that which the average adult reader has to contend with. "Even historical writings other than text books, contain fewer dates than the texts."

1. Locke, George H., "Reading With a Purpose".

2. Clucas, Charles C., "Analysis and Measurement of Certain Background Factors Conditioning the Study of History", Unpublished Doctor's Dissertation, Ohio State University.

B. Related Studies. Studies on Vocabulary Burden.

The Thorndike Word Book has been used in most of the researches to determine the general vocabulary difficulty of a text book. Pressey and Lively[1] developed a method for measuring the vocabulary burden of textbooks which included the making of a fairly reliable sampling of the words in the textbook and the evaluation of the difficulty of the sampling by means of the Word Book. H. H. Remmers and A. Grant[2] used the Pressey and Lively method in the study of the vocabulary load in certain mathematics textbooks; their results showed differences in difficulty for the mathematics text books but no general result of value for the present study. In a study of the scientific articles appearing in the daily newspapers[3] the Word Book was used for the selection of common words in order to make comparsions later between common English words and scientific terms. It was found that the percentage of common words appearing in the miscellaneous scientific articles was small and on the basis of other findings the writer concluded that pupils should be given special training in "scientific connotations" if newspaper science was to have meaning for them.

1. Lively, Bertha A. and Pressey, S. L., "Method for Measuring the Vocabulary Burden of Textbooks", Ed. Adm. And Supervision, 9:389.
2. Remmers, H. H. and Grant, A., "The Vocabulary Load of Certain Secondary School Mathematics Textbooks", Jour. Ed. Res., 18:203-210.
3. Curtis, Francis D., "A Study of the Vocabulary of Scientific Articles Appearing in the Daily Newspapers", Sch. and Soc., 23:821.

In two other studies of text book vocabulary, ancient history[1] and biology[2] the Thorndike Word Book figured; Shambaugh found that the uncommon words appeared only once or twice in a text and concluded that the student's vocabulary would not be enriched by his being exposed to a strange word once or twice in ancient history and adds that the vocabulary difficulty becomes all the more significant when we consider that many of the uncommon words refer to material in history with which the average student will have no further contact. As a result of his study San Diego concluded that the specific text in biology analyzed was not very difficult for a high school course in biology owing to the fact that many words were concentrated in the first 5,144 words of Thorndike's book; of the words not found in the Thorndike book a large majority appeared only once or twice.

Since this study attempts nothing concerning technical terms no treatment of that class of studies will be presented.

Studies Concerning Burden of Detail in Textbooks.

Because he believed that "all too often even the college student becomes lost in the mass of detail which certain textbooks insist upon putting before him or finding so much that is unimportant, he loses faith in the worth of all

1. Shambaugh, C. G., "Study of the Vocabulary of Ancient History Texts", Sch. and Soc., 28;494-6.
2. San Diego, Serapio M., "Analysis of the Vocabulary of New Elements of Biology, the Text Used in the Philippine Public Schools", Master's Thesis, university of Kansas, 1929.

material with which he is asked to become familiar". S. L. Pressey[1] investigated the factual load of a text in English literature, one in American history and a begining text in zoology. "The English literature text was found to mention the total of 2,461 different items such as authors, historical and literary characters, literary compositions, places and dates; of these items fifty-seven per cent appeared only once. The college text in American history mentioned 983 different persons (83 per cent of them appearing only once) but a majority of these were described or characterized not at all, and had less than a line devoted to a statement of what they did. The begining college text in zoology was found to involve a technical vocabulary at least twice as great as the vocabulary in a first year language course.

Clucas[2] studied the appearance of dates in five different standard texts in American history and found a surprising lack of agreement in the dates common to the different texts. Muzzey's text had the largest number of different dates, ranked second in the number of dates occuring only once and was shown to be the least typical of the group in comparing the frequency of occurence of each date for each separate book and the median frequency for the group. Concerning the "date load" in textbooks Clucas concluded:

1. Pressey, S. L., "Concerning the Burden of Detail in Certain Textbooks", Research Adventures in University Teaching.
2. Clucas, Charles C., *ibid.*

"It is the writer's opinion that because of the enormous number of different dates mentioned in the average textbook in American history the children are confused as to which dates are important. The condition as the writer sees it at the present time indicates that the contribution of the schools in the matter of the number of dates known is not much greater than the contribution made by ordinary reading and conversation outside the schools. ..... The factual load in most textbooks appears so great that unless some selection of minimum essentials in made in the case of both dates and technical vocabulary the immediate objective in the matter of the mastery of certain essential facts will not be attained".

CHAPTER II

THE PROBLEM STATED AND ANALYZED

This investigation endeavored to make a comparative study of the high school textbook adopted by the state of Kansas for American history and a book in the same field designed for adult reading with respect to vocabulary difficulty and burden of detail.

The textbook was THE AMERICAN PEOPLE by David Saville Muzzey and is used primarily by the Junior and Senior classes in American history. It appears to be a fairly widely used textbook as its publishers state th t it is used in 11,620 schools, including many of the larger cities of the country.

The book designed for adult reading which was chosen for the comparison was THE RISE OF AMERICAN CIVILIZATION by Charles A. Beard and Mary R. Beard. It covers the period of American history but is about twice as long as the textbook. This book appears on general reference lists in high school courses in American history but according to the writer's knowledge it is nowhere used as a textbook. It has had average or more than average distribution among the class of people who are expected to read materials other than the extremely light fiction, harmless or otherwise, which crowds our market today. This fact is evidenced by the circulation of 156,000 which its publishers claim for it. That this book written by Beard and Beard is a type distinct from the text-

book is illustrated by the fact that it was distributed by a well-known book club to its readers as one of its monthly selections; this organization would doubtless fail to keep its patrons by sending them books of the usual textbook variety.

It will be noted that there are two general bases of comparasion: (1) general vocabulary difficulty and (2) burden of detail. Perhaps the term "general vocabulary" can be made more explicit by a negative statement; the study is not concerned with the terms peculiar to history alone -technical vocabulary- but it is concerned with the difficulty presented by the general running vocabulary exclusive of proper names.

In this study the burden of detail was considered to be made up of three definite parts: (1) names of places, (2) names of persons, and (3) dates.

An important assumption underlying the problem includes the acceptance of the fact that the textbook in history has a great burden of detail as indicated by previous studies. If the use of adult activity is a valid criterion for curriculum content what will the book designed for adult reading reveal about the amount of detail which the adult reader may expect to encounter when reading American history and therefore the amount of detail permissable in the textbook ? Will this study corroborate Clucas' opinion that historical writings other than textbooks contain fewer dates than the

texts and will it indicate that the statement may be extended to apply to other phases of detail -persons and places ?

In order to reach satisfactory answers to the above general questions, the following of a more specific nature must be considered:

1. What is the comparative difficulty of the vocabulary content of the two books, as indicated by the percent of polysyllabic words each contains ?

2. What is the total number of persons, places and dates mentioned in each book ?

3. What is the frequency with which each person, place and date in each book was mentioned ?

4. What is the frequency of accurence for the persons, places and dates in each chapter of each book ?

CHAPTER III

METHOD OF PROCEDURE

The explanation of the procedure falls into two major parts: (1) the description of the procedure employed in determining the vocabulary difficulty of each book; and (2) a statement of the procedure followed in determining what persons, places and dates were mentioned and the frequency of each.

For purposes of comparaison an effort was made to follow the same method for both books. The portions used from the books included the running text; chapter, section and paragraph titles; and footnotes. The portions excluded were the teaching aids found in the textbook, such as references, topics for special reports, and questions; legends beneath illustrations and maps and tables were also excluded. Beard's book contained no such teaching aids and no illustrations, except a small wood cut at the begining of each chapter.

Method Employed in Determining Vocabulary Difficulty.

This investigation used the method of determining vocabulary difficulty advocated by George R. Johnson.[1] Mr. Johnson describes it as "simple to administer and at the same time reliable". Briefly stated, it is: "The per cent of polysyllabic words is a measure of the difficulty which people have in reading a book."

1. Johnson, George R., "Objective Method of Determining Reading Difficulty", Journal of Educational Research, April 1930.

Concerning this method its advocate continues: "This is true, not because difficulty is related intrinsically to the length of the word but because the length of words varies on the average, in accordance with frequency of use and consequently with familiarity." The evidence presented to prove the value of the method was considered sufficient to justify its use in the present study.

Since a random sampling of 3,000 words was found, by experiment, to yield a fairly reliable measure of difficulty, thirty 100 word samplings at approximately equal distances through-out the book were made.

To obtain the thirty samplings at approximatelty equal distances in Muzzey, it was necessary to use every twenty-fourth page since the book contains 729 pages. The first hundred words on every twenty-fourth page were counted; the polysyllabic words in each sampling were underlined in pencil. Then a list of the polysyllabic words on each page was made, the frequency of occurence of each word being kept. The list does not include polysyllabic adjectives or names. It does include all polysyllabic hyphenated words if the entire double word contained more than three syllables. Polysyllabic words ending in -ed and -ing were also counted.

The total polysyllabic words in the sampling was divided by the total number of words in the sampling to find the per cent of polysyllabic words.

After the per cent of polysyllabic words in the thirty 100 word sampling from Muzzey was found it was doubted that the sampling was adequate. To test this a count of polysyllabic words in sixty 200 word samplings was made , thus quadrupling the size of the sampling. A difference in the per cents of the two sizes of samplings of .0005 seemed to indicate that the thirty 100 word sampling was entirely adequate.

In finding the per cent of polysyllabic words for Beard the thirty 100 word sampling for each of the two volumes was used, since it had been proved adequate.

Procedure Followed in Determining the Number and Frequency of Persons, Places and Dates.

In this stage of the work the names of persons were underscored with red pencil as the book was read through. As it was gone through a second time, names of places were underlined with blue pencil and on the third reading dates were underlined with green pencil. Each book was read separately as each type of detail was marked, making a total of six readings for the two books.

When names of persons were used as proper adjectives in referring to laws or treaties such as the Esch-Cummins law or the Hay-Pauncefote treaty, they were not underscored as it seemed that the main idea called to mind was not the person but the law or treaty. A notable exception was the under-

lining of Monroe in the expression "Monroe Doctrine" as it was felt that that president is so firmly associated with the foreign policy bearing his name that a mention of the policy recalls the person. However since the personal element seemed predominate when the name was used to designate a presidential administration, the name was underlined. Names of fictitious persons were not counted.

The names of places besides containing hemispheres, bodies of water, countries, sections of a country, states, counties and cities also include the names of buildings (the White House, the Hermitage, Monticello, etc,.) and names of streets (Pennsylvania Avenue, Wall St.). The names of places were marked in whatever connection they appeared; i.e., Church of England, Virginia Company, Albany Plan of Union.

Dates in all forms were underlined whether they were expressed in terms of year only, as year and month or year, month and day.

After the persons, places and dates in one book were underscored, the book was gone over again to find the number of different persons mentioned and the frequency. As the reader came to each name it was copied on a two inch by three inch card; on the card was also written the name of the book in which it appeared -either Beard or Muzzey- and underneath that was written the number of the chapter in which it occured. Each time the name occured a score was marked on the card.

When this section of the work was finished, each card bore a name of a person, the name of the book in which it was mentioned; the number of the chapter in which it was mentioned and the number of times it was mentioned in that chapter; and finally the total frequency of that name for the entire book.

The place and dates were copied on cards in a similar fashion so that there was one card for each person, place and date in each of the two books.

From the two inch by three inch cards frequency tables of the persons, places and dates from each book were made. These frequency tables were made for dates, etc. for the entire book and also for the frequency of each kind of detail occurring in each chapter of each book.

CHAPTER IV.

THE PRESENTATION OF DATA.

Comparative Vocabulary Difficulty.

The vocabulary difficulty of the two books - Beard and Muzzey - was measured by the percent of polysllabic words each book contained. This per cent was found by dividing the number of polysyllabic words found in the sampling by the number of words in the sampling.

The data obtained on this part of the investigation are simple. The per cent of polysyllabic words found in Muzzey was four percent. The percent of polysyllabic words in Beard was found to be five per cent. These data show a difference of .0151 in the percentage of polysyllabic words found in the two books. In other words Beard has .0151 more polysyllabic words than Muzzey.

The seven tables which follow, display the data which indicate the part which detail plays in the book designed as a textbook for high school students and the part it plays in the book intended for adult reading.

In order to get the true significance of the data it must be remembered that Beard's book is more than twice as long as the one by Muzzey. There are approximately the same number of words on a full sized page of each book. Muzzey contains 730 pages which include teaching helps of various kinds at the end of each chapter and illustrations. The

TABLE I

Total Frequency of Names of Persons Listed in Terms of Occurrence in Muzzey and Beard

No. of Occurrences	Persons Beard	Persons Muzzey	No. of Occurrences	Persons Beard	Persons Muzzey
1	867	432	40	1	
2	290	149	42	2	2
3	129	80	43	1	
4	86	31	44		1
5	48	34	45		1
6	25	27	47	1	4
7	33	16	48	1	1
8	17	13	49		1
9	12	5	51	1	
10	17	12	52	1	
11	11	7	53	1	
12	13	7	58	1	
13	5	3	59	1	
14	9	5	60		1
15	7	2	65		2
16	4	2	66	1	
17	2	4	67	1	
18	6	1	80	1	
19	1	4	89		1
20	2	2	91	1	
21	2	1	99		1
22	2		106		1
23	2		110		2
24	1		119	1	
25	2	3	124	1	
26	1	2	138		1
27	2	2	145	1	
29	2	2	148	1	
30		1	153	1	
32		1	158		1
33		1	162	1	
34	1		176	1	
35		1	189	1	
36		1	233	1	
38	2	1			
39	2				
			Totals ----	1,627	872

book by Beard is made up of two volumes, one of 824 pages, the other of 800 pages, most of which are full sized pages containing a few illustrations.

The Appearance of Names of Persons in Muzzey and Beard.

Table I.

The information on the appearance of names of persons in the two books compared is presented by this table. Column I shows the number of occurence of the names of different persons in the books. In the next column appears the number of names in Beard and Muzzy occuring the particular number of times indicated in the first column. 867 names in Beard and 432 names in Muzzey appeared one time; two names in Beard and none in Muzzey occured twenty-two times; one name in Muzzy and none in Beard occured 158 times.

This table shows that the total number of different persons whose names appeared in Beard was 1,627 and that Muzzey's textbook contained the names of 872 different persons. The total mentions of persons in the two book appear in Tables VI and VII. The number of different persons mentioned by Beard is about twice as many as the number of different persons mentioned by Muzzey.

The author of the book intended for adult reading seems to have failed to use the opportunity to limit the number of different characters intoduced and to give a wealth of explanatory material on the limited number. Instead, the

apparent necessity for the introduction of new names with greater number of pages is a tendency toward extensity of treatment rather than intensity. Both the textbook and the book for adults fail to follow Rugg's recommendation to treat intensively a few worth-while subjects.

If the textbook in American history which was examined by Dr. Pressey,[1] is typical, the same condition of extensive treatment appears to carry over to college textbooks also; he found 983 different characters appearing in the textbook for American history.

The table show that in each book approximately half of the different names mentioned appear only once. If one minor objective in history is a bringing of the students into acquiantance with the characters figuring in historical events, no acquaintance could be made with a character mentioned once. Assuming that five mentions of the name of a person is necessary for the student to remember the name, practically three-fourths of the names in both the books would be mentioned too few times to be retained by the student.

Psychologically the more times the student meets these names and the more different situations with which they are associated for him, the better he becomes acquainted with the characters and the more firm his hold on them in his memory. Following this reasoning on to its logical conclusion it

1. Pressey, S.L., Ibid.

would seem wise for authors of textbooks to hesitate to introduce a character into the textbook unless he considers the character of sufficient importance to mention more than once.

These two books seem to be on an equal footing also with respect to the number of names mentioned over one hundred times. Beard containes about twice as many names in this catagory as does Muzzey but that condition is equalized by the comparative size of the two books. If frequency of mention is one indication of the importance of the name, both books would seem to attach about the same degree of importance to about the same number of persons.

It might be interesting to note some of the names appearing the greater number of times in the two books. The following were the names mentioned most frequently in Muzzey: Woodrow Wilson, 158 mentions; Theodore Roosevelt, 138; Washington and Lincoln, 110 each; Jefferson, 99. In Beard's two volumes practically the same list ranks high in the number of mentions: Jefferson, 233 mentions; Woodrow Wilson, 189; Abraham Lincoln, 176; George Washington, 162; Theodore Roosevelt 153; Andrew Jackson, 145; Alexander Hamilton, 148; Daniel Webster, 124.

Another phase of the difficulty presented by names of persons in the history textbooks which this study made apparent, but did not investigate is the variety of persons with the same family name which the student meets. Among

the Wilsons appearing in Muzzey were Woodrow, Wm. B., Wm.L., James and Henry Lane. Among the Lees were Jason, Daniel, Charles, Richard Henry, and Robert E. Among the Adams were Samuel, Mohn, John Quincy, Henry and Charles Francis; this particular situation is complicated still further by the fact that ther have been two Charles Francis Adams. It would be safe to challenge the history teacher of long experience to identify accurately each of the above personages. Who can deny the consternation which would confront the immature high school student upon meeting the array in his history textbook?

From a study of Table I it does not appear that fewer different names appear in the book intended for adult reading than in the book used as a high school textbook. A later table will show that the situation is slightly different when the basis for comparison is the total mention of names in each book instead of the total number of different names mentioned. If our high school American history textbooks are preparing for adult reading it might seem that the textbook does not introduce too many different names.

TABLE II

Total Frequency of Names of Places Listed in Terms of Occurrence in Muzzey and Beard

No. of Occurrences	Places	
	Beard	Muzzey
1	355	320
2	110	107
3	53	52
4	28	37
5	25	20
6	17	19
7	14	14
8	15	14
9	11	7
10	9	13
11	10	13
12	7	5
13	9	6
14	3	12
15	2	2
16	5	6
17	1	1
18	3	3
19	5	
20	3	5
21	2	2
22	2	2
23	3	2
24	4	1
25	2	1
26	4	1
27	1	2
28		4
29	1	4
30	1	1
31	1	2
32	1	2
33	2	1
34		3
35	1	
36		1
38		2
39	1	
41		2
42	1	1
43		1
44	3	

TABLE II (con't)

No. of Occurrences	Places	
	Beard	Muzzey
45	1	
47	3	3
48	1	1
49		1
50	1	1
51	1	1
52	1	2
53		1
55	1	1
56	3	
57	1	
60	1	2
61	1	1
62		1
65		1
66	1	1
67		1
69	1	
71	1	1
72		1
73	1	
75	1	
77	1	1
81		1
82	2	
83		2
87		1
97	2	
99	2	
100		1
104	1	
105	1	2
108	1	
119		1
122		1
125		1
127		1
129		1
132	2	1
137	1	
138	1	
148	1	

TABLE II (con't)

No. of Occurrences	Places	
	Beard	Muzzey
154		1
156		1
172	1	
179	1	
185	1	
186	1	
196		1
217	1	
233		1
234	1	
236	1	
250		1
394	1	
473	1	
479		1
634	1	
Totals	760	731

The Appearance of the Names of Places in the Books Compared.

TABLE II.

The total number of different names of places which appeared in both Muzzey and Beard and the number of times each place was mentioned are shown in Table II. Column I shows the number of times the names of places occured. The next column contains the number of places appearing in Beard and Muzzey which were mentioned the number of times specified in column I. Thus 355 names of different places appearing in Beard were mentioned once. Muzzey had 320 names of places appearing only once. Three names of different places in Beard and 5 in Muzzey were mentioned twenty times each. The greatest number of times any one place was mentioned in Beard was 634 times and in Muzzey 479 times. These relatively high frequencies do not indicate extensive tendency.

The total number of different places appearing in Beard is 760 and in Muzzey 731. In this respect Beard show a greater tendency toward intensity than does Muzzey as he introduces about the same number of different places in twice the number of pages. No evidence has yet been produced to indicate that more places should be mentioned in the textbook to aid the pupil in understanding the historical material presented.

If the textbook followed the example of the Beard book

it would eliminate some of the names of places it contains at present. It would mention Theodore Roosevelt's "New Nationalism" speech, for instance, without specifying that it was made at Osawatomie, Kansas. (The sentence in Muzzey's textbook also mentions a definite day on which the speech was made- August 11, 1910-as well as the place at which it was delivered.)

In order to understand some historical information, definite knowledge is necessary; maps have a definite use in textbooks. But the data here presented, indicate the possible abuse of the use of places by authors of textbooks. To use the same fore-mentioned illustration from Muzzey, it would seem that an understanding of the development of the Progressive part in 1910 would not require a knowledge of the exact Kansas town where the leade of the Progressives made a speech. This detail can be criticized as unnecessary since it does not contribute to the general topic developed. An excess of such detail can be said to constitute a hindrance to the understanding of history and a decided obstacle to interest.

Considering a mention of one hundred times or more a relatively high number of mentions, Beard's two volumes and Muzzey's one contain practically the same number of places with a high number of mentions. The names of places mentioned the most frequently in Beard were: United States, 634 times; England 473 times, America, 394; the South, 236; In Muzzey those

places with the highest mentions included : United States, 479 mentions; the South, 233 mentions; England, 250; and America. 196.

TABLE III

Total Frequency of Dates Listed in Terms of Occurrence in Muzzey and Beard

No. of Occurrences	Dates Beard	Dates Muzzey	No. of Occurrences	Dates Beard	Dates Muzzey
1	65	100	26	2	1
2	23	29	27	1	1
3	22	21	28		
4	20	18	29	1	2
5	16	15	30	1	2
6	15	18	31	1	1
7	7	6	33		2
8	11	18	35	1	
9	10	12	36	1	
10	7	8	38		1
11	9	11	40		1
12	10	9	45	1	
13	5	5	46		1
14	8	3	51		1
15	3	6	56		2
16	5	5	59		1
17	5	6	65		1
18	1	1	78	1	
19	5	5			
20	2	2			
21	2	1			
22	1	1			
23	4	2			
24	2				
25	2	2			
			Totals	270	322

TABLE III.

The Appearance of Dates in Muzzey and Beard.

The appearance of the "date load" of the two books is presented in Table III. The number of times the dates occured is shown in the column headed, "No. of Occurences". The second broad column contains the number of different dates appearing in Beard and Muzzey at the frequency indicated in the first column. That is, in Beard's two volumes sixty-five dates occured once but in Muzzey's one volume 100 dates occured one time; in Beard and Muzzey also, five dates occured sixteen times. The greatest number of times any one date appeared in Beard was 73 times while the greatest number of times a date appeared in Muzzey was sixty-five.

The total number of different dates appearing in Beard is Muzzey is 270 and in Muzzey 322. The difference in the total number of different dates appearing in the two books is quite noticeable especially when one remembers that the book by Beard is twice as long as that by Muzzey. In the 1624 pages of Beard's book there is a total of 270 different dates while in the 730 pages of Muzzey there is a total of 322 different dates. This seems to support substantially the statement made by Clucas[1] that

"the average textbooks in American history with well over a thousand mentions of dates is quite different from the average historical writing."

1. Clucas, Charles C., Ibid.

This statement concerns total mentions of dates which Table III does not show, but it appears that the textbook is quite different from the historical writing in the matter of total number of different dates mentioned.

The specific dates which occur the greatest number of times in each book will be shown on Table IV.

In his investigation Clucas found that authorities appear to agree that the number of dates to be required for memorization by elementary and high school pupils be between twenty and thirty. This number is not over one-tenth of the number of different dates appearing in the textbook by Muzzey.

One method of circumventing the confusion created in the mind of the student or teacher as to which dates are important and deserving of memorization is the adoption of a list of dates to be used as minimum essentials. But it is conceivable that there may be many teachers who are uninformed about the factual load of the textbook and will, as pointed out before, use it as a guide. Even though the teacher of history is aware of the great gap between the presentation of the textbook material and the best practice of teaching, she may not know that such lists of important dates exist or where to obtain them. Thus the furnishing of a list of important dates by experts does not guarantee the limiting of the dates to be learned to a comparatively short list. The effect will be far more widespread if the textbook writers can be prevailed

upon to reduce the number of dates introduced into the textbook.

If the book intended for adult reading is to point the way in the matter of the number of different dates to be included in the textbook, the tendency for the writer of textbooks should be decidedly in the direction of reducing the number of different dates to be included in the textbook.

In Table four, the first column on the left contains the dates which appeared in both Muzzey and Beard. The first Column under Muzzey includes the frequency of the date as it was mentioned in terms of years only; the second column under Muzzey shows the number of times the date was mentioned in terms of year and month; or year, month, and day. The record of the occurence of the dates in these two specific forms were not kept separate. The first total column shows the total number of times certain dates appeared in Muzzey's textbook. This explanation of the use of the columns for Muzzey applies to the columns under Beard also.

TABLE IV.

The Exact Dates Appearing in Beard and Muzzey.

To illustrate concretely how to read this table, the familiar date 1492 will be selected for illustration. 1492 appeared five times in Muzzey's book, once mentioned by year only, as 1492; four out of the five times it appeared in a more definite form than year only; it was mentioned as year

TABLE IV

The Dates in the Two Books With the Frequency of Mention by Year Only or by Year and Month or by Year, Month and Day.

Dates	Muzzey Yr.	Muzzey Y.M.D.	Muzzey Total	Beard Yr.	Beard Y.M.D.	Beard Total
242 BC				1		1
1066 AD				1		1
1095	1		1			
1227	1		1			
1224	1		1			
1295	1		1			
1339	1		1			
1394	1		1			
1447	1		1			
1453	1		1			
1456	1		1			
1460	1		1			
1471	1		1			
1485				1		1
1486	1		1			
1492	1	4	5	2		2
1493	1	2	3			
1494	1		1			
1497	1		1	1		1
1498	4		4			
1501	1		1			
1504	1		1			
1506	1		1			
1507	1		1			
1509	1		1			
1513	2	1	3			
1515	1		1			
1519	1	2	3			
1521	2		2			
1522	1	1	2			
1524	1		1			
1528	1		1			
1534	1		1			
1535	2		2			
1536	1		1			

Abbreviations

Yr., FRequency of mentions by year only.
Y.M.D., Frequency of mentions by year and month or by year, month and day.

TABLE IV (con't)

Dates	Muzzey Yr.	Muzzey Y.M.D.	Muzzey Total	Beard Yr.	Beard Y.M.D.	Beard Total
1539	1		1			
1540	1		1			
1541	1		1			
1542	2		2			
1547	3		3			
1553	2		2			
1555	1		1			
1558	2		2			
1565	2		2			
1577		1	1			
1579	1		1			
1580	1		1			
1581	1		1			
1583	1		1			
1584	1		1			
1585	1		1			
1587	1		1	1		1
1588		1	1	1		1
1593	1		1			
1594				1		1
1600	1		1	1		1
1601				1		1
1603	2		2			
1604	1		1			
1605				1		1
1606	1		1	4		4
1607	2	1	3	3		3
1608	4		4	2		2
1609	5		5	2		2
1610	1		1			
1611	1		1	1		1
1612				1		1
1614	1		1			
1616	1		1			
1617				1		1
1619	4	1	5	4		4
1620	2	2	4	2	3	5
1621	2		2	2		2
1622	1		1	3		3
1623	1		1			

TABLE IV (con't)

Dates	Mussey Yr.	Y.M.D.	Total	Beard Yr.	Y.M.D.	Total
1624	4		4	3		3
1626	1		1			
1628	1		1	1		1
1629	2		2	4		4
1630	2		2	1		1
1631				1		1
1632	2		2		1	1
1634	3		3	1		1
1635	1		1	1		1
1636	2		2	4		4
1637	1		1	1		1
1638	2		2			
1639	1		1	1		1
1640	2		2	1		1
1641				1		1
1642	1		1	3		3
1643	1		1	1		1
1647	1		1	3		3
1648				2		2
1649	3		3	3		3
1650	1		1	1		1
1651				1		1
1652	1		1			
1653	3		3	1		1
1654				2		2
1655	2		2			
1656				1		1
1657				1		1
1660	6		6	3		3
1662	3		3	1		1
1663	4		4	2		2
1664	4		4	2		2
1665	1		1			
1670	1		1	3		3
1671	1		1	1		1
1672	1		1			
1673	1		1	1		1
1674	1		1			
1675	3		3			
1676	1		1			

TABLE IV (con't)

Dates	Muzzey Yr.	Y.M.D.	Total	Beard Yr.	Y.M.D.	Total
1677	1		1			
1679	1		1	1		1
1680				1		1
1681	1		1	1		1
1682	2	3	5	1		1
1683	2		2			
1684	1		1			
1685	3		3	3		3
1686	1		1			
1687	1		1			
1688	2		2	5		5
1689	3	1	4	1		1
1690	2		2	1		1
1691	3		3	4		4
1692	2		2	3		3
1693	1		1	3		3
1696	2		2			
1697	1		1			
1698	1		1	1		1
1699	1		1	1		1
1700	2		2	1		1
1701	1		1			
1702	3		3	2		2
1703				1		1
1704	1		1	1		1
1705	1		1			
1709				1		1
1710	1		1	1		1
1711	1		1			
1712				1		1
1713	2		2	1		1
1715	2		2	1		1
1718	1		1	2		2
1719	1		1			
1721				1		1
1722	1		1	2		2
1726				2		2
1727	1		1	2		2
1728				2		2
1729				1		1

TABLE IV (con't)

Dates	Muzzey			Beard		
	Yr.	Y.M.D.	Total	Yr.	Y.M.D.	Total
1731	1		1	2		2
1732	1		1	2		2
1733	5		5	1		1
1734				1		1
1735				1		1
1737				1		1
1738	1		1	1		1
1739				1		1
1741				2		2
1743	2		2	2		2
1744	1		1	1		1
1745	1		1			
1746	1		1	1		1
1747				1		1
1748	4		4	2		2
1749	3		3			
1750	2		2	3		3
1751	1		1	3		3
1752				3		3
1753	1		1	3		3
1754	5	1	6	5		5
1755		1	1	4		4
1756	1		1			
1757	1		1			
1758	2		2	1		1
1759		1	1	1		1
1760	5		5	5		5
1763	16	1	17	7		7
1764	6		6	3		3
1765	1	3	4	11	1	12
1766	1		1			
1767	5		5	1		1
1768				2	1	3
1769	3		3	5	1	6
1770	1	1	2	2	2	4
1771	1		1	2		2
1772		2	2	1	1	2
1773	3	1	4	3		3
1774	3	3	6	7	2	9
1775	6	19	25	12	9	21

TABLE IV

Dates	Muzzey Yr.	Y.M.D.	Total	Beard Yr.	Y.M.D.	Total
1776	12	9	21	21	15	36
1777	10	6	16	4	2	6
1778	10	6	16	6	2	8
1779	1	4	5	6	6	12
1780	2	2	4	6	6	12
1781	7	4	11	2	1	3
1782	8	2	10	5		5
1783	14	5	19	6	1	7
1784	4	1	5	3		3
1785	3		3	8		8
1786	1	1	,2	3	1	4
1787	3	5	8	18	5	23
1788	1	3	4	3	2	5
1789	6	4	10	14	5	19
1790	6	1	7	6	5	11
1791	2	3	5	9	3	12
1792	5		5	8	2	10
1793	8	1	9	11		11
1794	7	1	8	5		5
1795	8	1	9	4	1	5
1796	7	3	10	8	1	9
1797	2		2	5		5
1798	9	3	12	4		4
1799	4	2	6	4	1	5
1800	11	1	12	16	1	17
1801	3	1	4	2	2	4
1802	6	1	7	2		2
1803	11	1	12	9	2	11
1804	7		7	3		3
1805	4	4	8	4		4
1806	4	2	6	3	1	4
1807	7	5	12	4	1	5
1808	3		3	6		6
1809	2	1	3	2	2	4
1810	7	1	8	6		6
1811	8	3	11	9		9
1812	28	1	29	21	2	23
1813	3	2	5	2		2
1814	8	7	15	3	3	6
1815	7	2	9	13		13

TABLE IV (con't)

Dates	Huzzey Yr.	Y.M.D.	Total	Beard Yr.	Y.M.D.	Total
1816	11	2	13	16		16
1817	9	2	11	4		/4
1818	9	3	12	6		6
1819	14	3	17	5		5
1820	13	1	14	18		18
1821	7	1	8	6		6
1822	4		4	4		4
1823	4	1	5	3	1	4
1824	11		11	8		8
1825	5		5	8		8
1826	2		2	2	2	4
1827	6		6	3		3
1828	10	1	11	8	1	3
1829	4	2	6	7	1	8
1830	13	4	17	12		12
1831	3		3	3		3
1832	12	1	13	12		12
1833	4	5	9	18	2	20
1834	8	2	10	5		5
1835	7	1	8	9	1	10
1836	10	3	13	13	2	15
1837	11		11	7		7
1838				4		4
1839	3	1	4	9		9
1840	16	1	17	17		17
1841	4	1	5	5	1	6
1842	6	1	7	6		6
1843	4		4	6		6
1844	3	3	6	12	1	13
1845	8	2	10	9	2	11
1846	10	8	18	8	1	9
1847	3	1	4	9	1	10
1848	13	2	15	15	4	19
1849	4	4	8	9	1	10
1850	52	4	56	27	2	29
1851	4		4	4		4
1852	9		9	7		7
1853	4		4	8		8
1854	8	4	12	11	2	13
1855	2		2	4		4

TABLE IV (con't)

Dates	Muzzey Yr.	Y.M.D.	Total	Beard Yr.	Y.M.D.	Total
1856	9	6	15	17		17
1857	3	3	6	12	4	16
1858	5	2	7	10		10
1859	2	1	3	13		13
1860	26	7	33	72	6	78
1861	13	14	27	33	12	45
1862	9	20	29	17	7	24
1863	15	18	33	15	4	19
1864	8	12	20	23	2	25
1865	18	20	38	31	4	35
1866	5	4	9	12		12
1867	4	2	6	11	1	12
1868	4	3	7	12	1	13
1869	7	2	9	13	1	14
1870	12		12	21		21
1871	4	2	6	17		17
1872	14	2	16	25		25
1873	18	1	19	11		11
1874	7		7	6		6
1875	9		9	8		8
1876	9	1	10	20		20
1877	7	4	11	12	3	15
1878	9	1	10	9		9
1879	8	3	11	4		4
1880	26		26	26		26
1881	5	1	6	8		8
1882	5	1	6	8		8
1883	8	1	9	14		14
1884	9		9	15		15
1885	5	3	8	7		7
1886	7	3	10	9		9
1887	7	2	9	14		14
1888	7	1	8	12		12
1889	14	5	19	12		12
1890	35	11	46	26		26
1891	7	1	8	5		5
1892	7	4	11	14		14
1893	19	10	29	11	1	12
1894	14	1	15	11	1	12
1895	10	5	15	10		10

TABLE IV (con't)

Dates	Muzzey Yr.	Muzzey Y.M.D.	Muzzey Total	Beard Yr.	Beard Y.M.D.	Beard Total
1896	15	2	17	16		16
1897	8	3	11	14	3	17
1898	12	18	30	14	9	23
1899	4	5	9	15	1	16
1900	15	5	20	22		22
1901	6	6	12	8	1	9
1902	12	7	19	14		14
1903	9	10	19	6	2	8
1904	12	3	15	12		12
1905	9	3	12	6	1	7
1906	5	3	8	13		13
1907	12	5	17	9		9
1908	8	3	11	6		6
1909	6	7	13	5		5
1910	20	3	23	19		19
1911	6	10	16	14		14
1912	21	5	26	18	1	19
1913	14	9	23	14		14
1914	27	24	51	16	14	30
1915	6	13	19	7	3	10
1916	15	15	30	18	6	24
1917	23	42	65	14	17	31
1918	20	36	56	11	12	23
1919	11	48	59	9	5	14
1920	24	16	40	24	3	27
1921	15	7	22	9	2	11
1922	9	5	14	7	3	10
1923	4	8	12	6	1	7
1924	17	8	25	16		16
1925	8	5	13	9	2	11
1926	8	9	17	9	2	11
1927	3	13	16	5	1	6
1928	9	22	31			
1929	8	6	14			
1930	1		1			
1931	1		1			
1948	1		1			
1964				1		1
2240				1		1
Totals	1,692	778	2,470	1,869	241	2,110

month or year, month and day; for example, October 12, 1492 - or October, 1492. In Beard's two volumes the date 1492 appeared two times and both times it was expressed in terms of year only and not in a more definite form.

This table does not show the total number of different dates appearing in the two books; that information is given in Table III. But Table IV does show the total frequencies for each book. In Muzzey, there were 2,470 mentions of dates while in Beard's volume there were 2,110 mentions of dates. This means that Beard's volumes contained half the total mentions of dates which the textbook contained. This makes over three dates per average page for Muzzey and over one date per average page for Beard. The text would do well to follow the example set by the adult book in reducing the number of mentions of dates. If there could be some sort of guarantee the student would not be required to memorize a multiplicity of dates, the situation would be somewhat improved. Even if such were possible, the very presence of a generous peppering of dates throughout the text warns the student of a probable lack of interest for him in the pages. The futility of requiring the memorization of many dates was shown by the investigation made by Clucas; in three tests given to college students to determine what dates in American history are remembered and particularly what dates are remembered best, he learned that the average college student

can recall only seven different dates in United States history. Other psychological experiments have demonstrated that details are not retained, that only the large general meanings are remembered. The writer unconditionally recommends a reduction in the mentions of dates in the history textbooks for high school use.

In Muzzey 1,692 dates were mentioned in terms of year only while in Beard 1,869 dates were mentioned in terms of years only.

Beard's two volumes had considerably fewer dates mentioned in a more concrete form, as the table shows 241 dates mentioned in a very definite form for Beard and 778 for Muzzey. This means that the date may be expressed as year and month; year, month and day ; or even month and day only. There would seem to be little doubt that more than one date to the page (there are 730 pages in the textbook) expressed in such a manner is excessive detail and contributes nothing or little to the understanding of generalities.

A hasty perusal of the first few pages of this table will show that very few of the dates up to 1600 appear in Beard. Also it will be noticed that beginning with the 1600's almost every year appears in the list; one year only between 1600 and 1610 is omitted, three years between 1610 and 1620. From this point on through the list very few of the years fail to appear. One wonders that the authors of

the books found one or more events of importance for almost every year. The frequency of occurence of the dates in both books begins to increase noticeably with the 1760's. The increased frequency seems to remain fairly constant in both books when it increases still more with the 1860's. As one nears the end of the list of dates the frequency decreases somewhat for both Muzzey and Beard. If number of mentions is one indication of the importance of a date the authors of both books would appear to emphasize the importance of dates beginning with the Revolutionary period to the present time.

Clucas[1] formulated a list of 21 important dates in American history which is a composite of two lists of his own gained from two different sources and five other lists. The following table show the 21 dates in the list he formulated and the 21 dates appearing the greatest number of time in the textbook and the book intended for adult reading.

Table V is found on the following page.

In all there seems to be no significant agreement between the three lists.

It will be noticed that the Muzzey and Beard lists include no date prior to 1775. Clucas includes no date after 1917. The fact that the Muzzey list especially includes dates after 1917 of high number of mentions may be partly accounted for. When the dates in the books were underlined, a date expressed in terms of months, or month and day, such as November oY

1. Clucas, Charles C., Ibid.

TABLE V

The Twenty One Most Important Dates as Found by Clucas and the Twenty One Dates Occurring the Most Frequently in Muzzey and Beard.

Clucas List	Muzzey	Beard
1492		
1607		
1619		
1620		
1775	1775	1775
1776		1776
1787		1787
1789		
1803		
1812	1812	1812
1820		
1823		
1850	1850	1850
1860	1860	1860
1861	1861	1861
	1862	1862
	1863	
		1864
1865	1865	1865
		1870
		1872
	1880	1880
1890	1890	1890
	1893	
1898	1898	1898
1900		1900
	1912	
1914	1914	1914
	1916	1916
1917	1917	1917
	1918	1918
	1919	
	1920	1920
	1924	
	1928	

November 11, was underlined and listed on the card of the year which was implied. Thus, if November 11 really meant November 11, 1918 a score was marked on the card for 1918. It seemed that Muzzey mentioned a good many dates of recent history in that fashion which may explain the number of dates after 1917 in the Muzzey list of high number of mentions.

The experienced and able teacher of American history would be unwilling to accept the list of twenty-one dates appearing the greatest number of times in Beard and Muzzey as the twenty-one dates of greatest importance for the student of history to know. Failure of these two lists to agree substantially with the Clucas list which is a composite of experts' lists, would indicate the unwillingness of the teacher of histoty to accept them. Clucas[1] points out that

"the frequency of any one date is not an absolutely sure means of determining the importance of a date for there is a noticeable tendency among authors to use a date in connection with many events rather than many times in connection with one event."

Thus the date mentioned a few times in connection with an admittedly important historical event will rank as important when importance is measured in terms of high frequency.

TABLE VI

Showing the Accumulated Detail in Muzzey by Chapters

Chap.	Dates	Places	Persons	Total
1	70	472	139	681
2	121	428	171	720
3	90	404	94	588
4	121	495	353	969
5	56	235	89	380
6	176	580	394	1150
7	168	443	238	849
8	94	188	176	458
9	117	441	222	780
10	128	432	214	774
11	128	551	372	1051
12	151	366	153	670
13	151	232	242	625
14	112	204	129	445
15	82	279	139	500
16	102	306	157	565
17	110	185	241	536
18	149	322	211	682
19	121	295	175	591
20	223	442	292	957
Total	2,470	7,300	4,201	13,971

The Total Amount of Detail in Muzzey.

TABLE VI.

The appearance of detail in Muzzey is summarized by chapters in this table. The table shows the total of the three types of detail appearing in each chapter, the total of each type of detail appearing in each chapter, the total of each type of detail for the entire book and total of the three types of detail for the entire textbook. Chapter I of Muzzey contained seventy mentions of dates, 472 mentions of places and 139 mentions of persons, with a total of 681 dates, places and persons in the entire chapter. The text of this particular chapter in Muzzey ends near the top of the thirty-fourth page in the book; it included four full page illustrations and three smaller illustrations occupying from one-fifth to one-third of a page.

The total detail in two chapters stand out in the table; chapters 6 and 11. Chapter 6 has forty-five pages including all illustrations; it concerns the period of American history from the beginning of the new government under the constitution to the end of the War of 1812. In chapter II the period of the Civil War is covered.

Mentions of places in Muzzey occupy high position in comparison with the total mentions of the other two types of detail. The total mentions of dates ranks third.

The burden which detail of these three types constitute is indicated to some extent by comparing the total items of detail in the book with the total number of pages. There are 13,971 persons, places and dates mentioned in the space of 730 pages which makes over twenty of such detail to each page when allowance is made for the supply of maps and illustrations included in the 730 pages.

This indicate little opportunity for the use of explanatory words to support and introduce the persons, places and dates. In formulating a "Vocabulary of American History"[1] it was found that Muzzey used fewer words than the authors of six other texts in American history, to support the more common concepts of history. This points strongly to the suspicion that the textbook is too concise and brief and recalls Rugg's recommendation that textbooks be expanded to include more narration, description and anecdote.

The Total Amount of Detail in Beard.

TABLE VII.

This table presents the same information for Beard which Table VI did for Muzzey. The number of dates, places and persons appearing in each chapter is shown, and likewise the total of these three types of detail for each chapter and for the entire book is shown. For example; Chapter 30 includes eighty-seven mentions of dates, 205 mentions of places, and 241 mentions of persons, with a total of the three types

1. Barr, A.S. and Gifford, C.W., "Vocabulary of American History". Journal of Educational Research, Sept. 1929.

TABLE VII
Showing the Accumulated Detail in Beard by Chapters

Chap.	Dates	Places	Persons	Total
1	17	237	101	355
2	58	324	207	589
3	41	373	110	524
4	72	403	265	740
5	30	184	132	346
6	79	377	356	812
7	20	97	90	206
8	52	193	268	513
9	62	465	187	714
10	68	317	411	796
11	45	390	88	523
12	65	148	264	477
13	78	523	199	800
14	61	306	109	476
15	74	312	218	604
16	113	416	636	1165
17	68	235	322	625
18	89	344	133	566
19	61	479	78	618
20	83	318	200	601
21	63	106	87	256
22	33	163	41	237
23	117	125	229	471
24	61	364	164	589
25	149	379	556	1084
26	102	494	281	877
27	88	164	266	518
28	73	400	215	688
29	71	280	305	656
30	87	205	241	553
Total	2,080	9,120	6,759	17,959

of detail of 533. This particular chapter contained ninety-eight pages. Chapter 16, showing the greatest total detail, covers 100 pages and treats the social and esthetic progress in the nineteenth century.

A concrete picture of the part which detail plays in this book by Beard is given by comparing the total items of detail in the entire book with the total number of pages. In the 1624 pages of the two volumes there are 17,959 items of detail or about eleven items of detail to the page. Beard's book is practically devoid of illustrative material. Of these 17,959 items of detail the greatest number of mentions is mentions of dates.

CHAPTER V.

INTERPRETAION OF DATA AND SUMMARY.

Comparative Vocabulary Difficulty of the Books Compared.

According to the method used, there appears to be little difference in the vocabulary difficulty of the book intended for adult reading and the textbook; Beard's book was found to have .0151 more polysyllabic words than Muzzey's. This might mean that the vocabulary of the textbook is as difficult as that used by Beard or that Beard's vocabulary is as easy as Muzzey's. However, that may be, the point established is that there is no essential difference in the difficulty of the vocabulary of the two books as determined by the percentage of polysyllabic words.

The Data on Muzzey.

Before comparing the general data of the two books, the data on each book will be considered separately. In Muzzey, the total different persons mentioned slightly exceeds the total different places; there are 872 different persons and 731 different places mentioned. (Tables I and II.) But the 7338 total mentions of places far exceed the 4254 total mentions of persons. (Table VI) This might indicate that the student of the textbook has a greater opportunity to become acquainted with the various places mentioned than with the various people mentioned. The more frequently the

name of a person or place is met in the textbook by the student and the greater number of associations it has for him, the greater is the opportunity for him to become acquainted with it and hence the less likely the term is to become a hindrance to the student's understanding. Other facts presented by the data seem to support the conclusion that the student has a greater opportunity to become acquainted with names of places than with names of persons. There are not as many places as persons mentioned with a frequency of one. Four hundred thiry-two names of persons were mentioned once while 320 names of places were mentioned one time. More places than persons were mentioned a relatively high number of times. Five persons were mentioned over one hundred times, and fifteen places appeared with a frequency over one hundred.

Fewer different dates than different places and people were introduced in Muzzey. (Tables I, II, and III.) But even these relatively fewer dates have been shown to be far greater in number than those which are recommended by experts for memorization; and even those appearing the greatest number of times in Muzzey are not the dates which are considered the most important by experts. Dates likewise appeared with a lower total frequency thn those frequencies of persons and places. (Table VI) Of the total mentions of dates, one-third were mentioned in a more specific form thn year only.

In the list of important dates recommended for memorization no date appears in a more definite form than year only. Table V) The necessity for the appearance of over one-third of the dates in such a specific form remains to be justified.

The Data on Beard.

The same situation with respect to the total different persons, places, and dates is found in Beard. There are more different persons than different places named, but the total frequency of places is greater than the total frequency of persons. Of the three types of detail in Beard, dates occupy the lowest position both in number of different dates appearing and total frequency. One thousand six hundred and twenty-seven different persons appeared in Beard, (Table I), with a total number of mentions of 6759; 760 different places were mentioned (Table II) with a total frequency of 9120 (Table VII); 270 different dates were mentioned (Table III) with a total number of mentions of 2080 (Table VII).

Beard's tendency toward intensive treatment seems demonstrated to the greatest extent with respect to dates and in a lesser degree with respect to places. Considering the relatively high number of different persons he introduces and that over three-fourths are mentioned less than five times each, it must be stated that he uses extensive, rather than intensive treatment with respect to persons.

Comparison and Interpretation of General Data In Beard and Muzzey.

The following comparisons of data on the two books have not yet been made.

1. In the 1624 pages of Beard's two volumes there appears a total of 17, 959 of the three types of detail. (Table VII) Muzzey's 730 pages contain 13,971 total items of the three types of detail. (Table VI) Using these figures to obtain an estimate of the total items of detail mentioned on the average page of each book it will be found that Beard has a total of eleven items on the average page and that Muzzey has a total of nineteen items on the average page. To the writer this seems an appreciable difference between the two books in the matter of general detail. When reading the two books to underline the items of detail, the impression was gained that Beard contained less general detail for the size of the book than Muzzey.

2. The total mentions of persons in Beard amounted to 6759, in Muzzey to 4201. Beard, as well as Muzzey, appears to violate the demand for larger treatment of few subjects.

3. 9120 mention of places were made in Beard; while Muzzey mentioned places 7300 times. But Beard's greater total is largely made up of a high number of mentions of many places. This gives the reader a greater opportunity to become acquainted with the places, but it could constitute

a burden if carried far enough.

4. Dates appeared 2080 times in Beard, and 2470 in Muzzey. The date load in Beard is appreciably smaller than in Muzzey.

Thus it is apparent that Beard exceeds Muzzey in the total mentions of detail, total mentions of persons, total mention of places, but not in total mentions of dates.

Summary of Data.

The data obtained in this comparison of the American history textbook and the book in the same field intended for adult reading may be summarized as follows:

1. Beard's book contains a greater total detail than Muzzey's.

2. Beard exceeds Muzzey in total mention of persons, and the total mention of places, but not in total mentions of dates.

3. Beard mentions fewer different dates, but more different persons and places than Muzzey.

4. There is no difference in the vocabulary difficulty of the two books as measured by the percentage of polysyllabic words.

Interpretation of the Data.

Without doubt, the data presented show the huge obstruction to interest, full understanding of subject matter and the formation of desirable attitudes which the detail-

laden textbook constitutes. The burden of detail carried by the history textbook complicates the whole problem of education through very probable loss of interest on the part of the pupil, poor grades, failure and non-promotion.

The textbook having the same type of presentation of subject matter as the one used in this study will deaden or kill the interest brought by the student to the course and effectively prevent the formation of an interest in the subject by the person who already has none. In this connection the writer is reminded of one student in Senior high school who has failed two consecutive years in a course in World History. The student is not naturally interested in history but the textbook with what seems to be even more extensive and detailed treatment than the one used in this study would prevent the satisfactory arousing of any little interest which could be developed. The writer has no doubt that there are some characters and movements in the World History course in which this student feels a spark of interest; but no sooner could this spark be formed than it is fanned out by the swift passage of the textbook treatment to another topic. In this particular instance the textbook is held to be a major factor in student failure.

When the textbook is the main tool of instruction, as it now is, it stands as one of the major difficulties in the way of attaining the goal of education set up by the N.E.A.

commission on the re-organization of Secondary Education.[1] This general goal is explained in the following quotation: "Consequently, education in a democracy, both within and without the school, should develop in each individual the knowledge, interests, ideals, habits and powers whereby he will find his place and use that place to shape both himself and society toward even nobler ends". The textbook, burdened with detail, can do nothing but prevent the individual from obtaining the knowledge and forming the interests, ideals, habits and powers which the N.E.A. commission considered necessary in a democracy.

According to the immense amount of detail which the data shows is carried by the textbook, the presentation of subject matter cannot contribute its share toward the realization of the ultimate objectives of education.

Likewise neither can this type of presentation aid in the attainment of the objectives for history. The knowledge necessary to the understanding of our institutions cannot be successfully realized by using a text with nineteen items of detail on the average page. The difficulty of using reflective thinking in the history class, using the textbook with excessive detail, will be so great as to be almost prohibitive.

The need for history textbooks shorn of a vast amount of their present detail and expanded to meet Rugg's requirement

1. U.S.Bureau of Education Bulletin. 1918, Number 35.

for textbooks "made up of a wealth of anecdote, description and narration about a few worth while matters" is pressing.

The purpose of this investigation was to determine if there is a significant difference in the vocabulary difficulty and burden of detail carried by the history textbook to be used in high school and the book on history intended for adult reading.

The following conclusions seem justified by the data presented:

1. If Beard's book is used as a criterion for the presentation of material in the textbook, the textbook would not seem to offend unduly in the matter of detail or the difficulty of the vocabulary.

2. In the light of the present general objectives for education and the teaching of history, the presentation of the subject matter in the textbook for American history by Muzzey is inadequate.

3. The book by Beard does not satisfy the demand for intensive treatment as completely as would be desired of a book used as an example for a textbook, but it cannot be denied that it points toward the desired method of presentation. The following reasons support the fore-going asserttion:

a. Beard's book does not confuse the reader with the introduction of as many different dates as does the textbook. Clucas' observation concerning the comparative date

load of the average historical writing and the average textbook seems justified.

b. The book intended for adults is noticeably freer from detail with respect to mentions of places, but not with respect to mention of persons.

4. The need for amplification in our history textbooks has been enphasized in this study.

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