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A content analysis of self-reliance or dependence in a sixth grade reading text-book

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A CONTENT ANALYSIS OF SELF-RELIANCE OR DEPENDENCE IN A SIXTH GRADE READING TEXTBOOK

by

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CHAPTER I

THE PROBLEM AND DEFINITION OF TERMS USED

Traditionally, our nation has been one in which individual effort and enterprise are rewarded. Our "log cabin" heroes, our "Horatio Alger" stories, are a reflection of a cultural tradition of independence and self-reliance which we cherish. Most of us fondly recall the story of the little train engine who said, "I think I can, I think I can," and managed to puff over the hill.[1] This little train showed self-reliance and independence in reaching his goal. By contrast, a recent children's book tells about a little locomotive who goes to school to learn to be a big locomotive and strives to learn perfectly all his lessons, especially the importance of staying on the track at all times.[2] When he gets off the track and goes daisy picking in the meadow, all the people in the village get out and wave red flags to get him back on the track. This little locomotive succeeded by being obedient and conforming to what was expected of him. The fundamental difference in the degree of self-reliance shown in these two stories is evident.

Would an examination of texts currently in use in the schools reveal similar evidences of self-reliant or dependent behavior?

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[1] Watty Piper, The Little Engine That Could (New York: The Platt & Munk Co., Inc., 1954).

[2] Gertrude Crampton, Tootle (New York: Simon and Schuster, 1946).

I. THE PROBLEM

Statement of the problem. This study is an investigation, using the method of content analysis, to determine whether self-reliant or dependent behavior is described in the narrative-descriptive portions of the required reading textbook of the sixth grade in the Omaha public schools.

What is the nature of the fictional material which the pupils are required to study in their daily learning activities? Is the character in the story actively participating in events, seeking to solve problems for himself, doing things on his own, is he characterized as an independent and self-reliant person? Or, on the other hand, does he passively expect to be helped, taught, and aided by someone more powerful than himself? Does he expect that chance will come to his rescue in the form of a "lucky break"?

Inherent in this investigation is another problem: Is it possible to devise a method of determining the degree of self-reliance or dependence shown by the characters in a story? Can this be so devised as to be reliable, by carefully standardizing and defining the terms used, so that any investigator applying the same method would get approximately the same results?

Importance of the study. When it is taken into consideration that some thirty million children between the ages of five and thirteen years are exposed to the content of school reading texts each year, the need for careful scrutiny of the actual idea content of these books is

apparent. Fortune magazine describes the textbook business as the fastest growing, most remunerative and most fiercely competitive branch of book publishing today.[3] Last year textbook sales alone amounted to two hundred eighty million dollars. In spite of increasingly attractive format, however, some critics have questioned whether there has been any improvement in the thought content of the books. They contend that in aiming for a mass market, publishers have produced a low common denominator of uniformity.

In the last decade, numerous critics of modern school textbooks have expressed their opinions vehemently, with no other basis than their own personal opinions for their statements. Some examples are:

> Millions of parents would be deeply shocked if they closely examined the history and government textbooks of their children. During the last thirty years a sweeping movement toward Socialism and even toward Communism has appeared in many widely used textbooks.[4]

> Revoltingly un-Christian counsel is given to adolescents . . . students are told that 'a mature person does not deny his emotions or try to suppress them'. . . . My conclusion: Modern-day textbooks strike sturdy, telling blows at the basis of American liberty.[5]

> A group called 'Texans for America' has launched a campaign to discover anti-American textbooks used in the schools. They found fifty out of a hundred history textbooks to be 'un-American'. . . .

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[3]"McGuffey Was Never Like This," Fortune 60 (December, 1959), p. 109.

[4]Kenneth W. Coleman, "The Textbook Problem: A Symposium. A Critic," Saturday Review of Literature, 35 (April 19, 1952), p. 16.

[5]Verne P. Kaub, Ibid., p. 20.

> Among authors this group regards as 'un-American' are Jack London, Upton Sinclair, Eugene O'Neill, Carl Sandburg, Stephen Vincent Binet, Sinclair Lewis, Ring Lardner and Theodore Dreiser.[6]

These statements do not tell anything about modern texts, since they are not based on available scientific evidence or experimental investigations, but merely on personal bias. There is danger that people who read these words uncritically because they are presented as authoritative, may assume that these statements actually describe modern textbooks. The present study is an attempt to establish a more reliable and objective basis for evaluating the content of texts, in one particular area: the self-reliant vs. dependent aspect of behavior.

Teachers, principals, school boards and others concerned with the duties of textbook selection need some criterion to guide them in determining whether the actual content of the text emphasizes the social attitudes and ideas of our culture, such as self-reliance, which we wish to transmit, via education, to the next generation. Spalding comments: "There is almost complete lack of guiding principles by which a committee can be assisted in determining which volume comes the nearest to being what the system thinks textbooks should be."[7] Too often, a score card is used, by which a particular text is described by so many points for each item. The text is then accepted or rejected on the basis of the

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[6]Howard A. Ozmon, Jr., "Better Dead than Well-Read?" Phi Delta Kappan, XLIII, No. 5, (February, 1962), p. 222.

[7]Willard B. Spalding, "The Selection and Distribution of Printed Materials," Text Materials in Modern Education: A Comprehensive Theory and Platform for Research (Urbana: University of Illinois Press, 1955), p. 173.

total score earned. Spalding says further:

> The vagueness of ideas about what constitutes a good text and the use of values which inhere in the democratic ideology, rather than those which might enable teachers to discriminate between texts, leads some to believe, upon occasion, that a book is good if it has been chosen by a process which seems to be good. They seem to have no verbalized standard by which to tell one book from another, or to justify their use of one book rather than another.[8]

The present study, by defining in precise terms one aspect of the book's content, may be of some use to those seeking to establish criteria for text evaluation, as well as to writers of future texts.

Society as a whole is concerned with the problem of what attitudes are transmitted via education to future generations, because the very existence of a society depends upon the coherence or agreement that exists among its members on basic orientations to life. One study of aims considered important by parents revealed some very interesting facts: of 386 parents responding to a questionnaire, only six considered the learning of textbook facts to be of primary importance as an educational aim. In fact, textbook facts were placed last on the list by 119 parents, considered to be less important than character building, citizenship, work habits, how to study, and getting along with others.[9] Whether the individual assumes a dependent or self-reliant attitude toward the numerous activities which we call living is certainly of great

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[8] Ibid., p. 177.

[9] Barbara Sargent Turpin, "The Textbook Problem: A Symposium. A Parent," Saturday Review of Literature, 35, (April 19, 1952), p. 19.

importance in influencing his behavior. It is of interest to consider, then, these fundamental attitudes shown by characters in the stories children read during their schooling, because this is a possible source for the attitudes and behavior which they show in everyday life. Regarding the possibility of the child's acquiring attitudes by reading, McMurray and Cronbach comment:

> The teaching power of narrative writing goes beyond the communication of purely cognitive interpretations; narratives are especially apt for developing emotionalized meanings. A person who responds to a vicarious experience as if he were living through it has emotional reactions. These emotional reactions can teach the reader a new emotional attitude which he will employ when a comparable event occurs in his own life.[10]

Thus a child might learn self-reliance or dependence through reading.

This study, and others seeking to define the "what is said" category, are of importance in future research on the effects of reading on the behavior of pupils. In the standard definition of the communication process,

> Who
> Says What
> In Which Channel
> To Whom
> With what Effect?[11]

this study attempts to answer only a part of the question "What"; but this

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[10] Foster McMurray and Lee J. Cronbach, "The Proper Function of Text Materials," Text Materials in Modern Education: A Comprehensive Theory and Platform for Research (Urbana, Illinois: University of Illinois Press, 1955), p. 34.

[11] Harold D. Lasswell, "The Structure and Function of Communication in Society," Mass Communications (Urbana: University of Illinois Press, 1960), p. 116.

is a necessary preliminary in answering the larger question of the effects on behavior.

II. DEFINITION OF TERMS USED

Content analysis. Various authors give slightly different definitions of this term. In this study, Berelson's definition is followed: "Content analysis is a research technique for the objective, systematic, and quantitative description of the manifest content of communication."[12] The requirement of objectivity means that the categories selected must be so precisely defined that other analysts can apply them to the same material with the same result. The requirement of system means that all the relevant content must be analyzed in terms of all relevant categories; this eliminates the choice of only certain instances which fit the analyst's purpose. It also means that the analysis must be designed to secure data about some scientific problem or hypothesis, and not be a mere tabulation of facts. The requirement of quantitative description means that the degree or extent to which the various categories appear in the material is of primary importance, and should be expressed as exactly as possible, preferably in numerical terms.

Certain assumptions are implied in the method of content analysis:

> 1) Content analysis assumes that inferences about the relationship between intent and content or between content and effect can validly be made, or the actual relationships established. . . .

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[12] Bernard Berelson, Content Analysis in Communication Research (Glencoe: The Free Press, 1952), p. 1.

> 2) Content analysis assumes that study of the manifest content is meaningful. This assumption requires that the content be accepted as a 'common meeting ground' for the communicator, the audience, and the analyst. . . .
>
> 3) Content analysis assumes that the quantitative description of communication content is meaningful. This assumption implies that the frequency of occurrence of various characteristics of the content is itself an important factor in the communication process, under specific conditions.[13]

Self-Reliance. In this study, self-reliant behavior is that in which the character acts on his own, reaches his goal mainly by his own efforts, shows enterprise, leadership, is defined in active terms as one who depends on his own judgment, seldom asks aid or assistance. Stott identified the following factors in his study of self-reliance:

> Independence of decision in personal matters . . . efficiency in the use of time . . . resourcefulness together with dependability and willingness to work in the group situation . . . one who is especially conscientious in keeping his agreements, meeting his obligations, 'keeping up his end' generally in his relationships with others.[14]

A similar definition is given by Guilford:

> Desire to depend upon one's self; to be a responsible agent . . . .
> From adult populations we find the following attributes:
> Is dependable (e.g., scrupulous in discharging his obligations)
> Is self-reliant (e.g., depends upon his own judgment)
> Does not crave attention or approval
> Is not dependent upon others (e.g., does not go to others for aid or advice)
> Is not subservient (e.g., not willingly submissive)
> Does not expect to be waited on[15]

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[13] Ibid., pp. 18-20.

[14] Leland H. Stott, "An Analytical Study of Self-Reliance," Journal of Psychology 5, 1938, pp. 115-117.

[15] Joy Paul Guilford, Personality (New York: McGraw-Hill Book Company, Inc., 1959), p. 440.

This factor is described by Cattell: "Self-reliant, Independent: takes care of himself; likes to do things without help; knows what to do and uses common sense in handling his affairs."[16] In order to validate his test of Self-Sufficiency, Bernreuter[17] devised a rating blank on which separate ratings were obtained of what he considered to be four aspects of self-sufficiency: the need for sympathy, appreciation and encouragement; the desire to be alone; the frequency of asking advice; and the ability to handle responsibility.

Dependence. As used in this study, dependence means that a character asks for help, expects others to come to his aid or assistance, seeks to be praised, admired, or loved; he is powerless, helpless, fearful of the acts and opinions of others; he is the recipient of a gift, charity, or a "lucky break;" he is defined in passive terms as one who is to be helped, protected, admired, done "for." He is obedient, submissive, timid, does not take the initiative socially; he cries, feels unappreciated, complains, feels shame or failure; he needs to be motivated, waits to be told what to do. By implication, Guilford defines it as the opposite of self-reliance: "Another time-honored virtue receives scientific support in the factor of self-reliance vs. dependence. The

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[16]Raymond B. Cattell, Personality and Motivation Structure and Measurement (Yonkers-On-Hudson, New York: World Book Company, 1957), p. 815.

[17]Robert G. Bernreuter, "The Measurement of Self-Sufficiency," Journal of Abnormal and Social Psychology, 28, 1933.

bipolarity of this dimension is indicated by empirical data."[18] Cattell defines the dependent person: "Appeals to others for help in a somewhat anxious, dependent way; impractical; does not show good common sense in handling his affairs."[19]

Narrative-descriptive material. For purposes of this study the classification of verbal communications as used in texts by McMurray and Cronbach seems suited. "Narrative-descriptive statements refer to particular events or objects. As closely as possible the narrative statement gives a running account of an experience . . ."[20] It is separate and distinct from the classifications of prescriptive-directive, in which the reader is given advice or instructions, generalization, which is a statement regarding recurring phenomena, and theoretic statements, which communicate precise meaning of concepts within organized disciplines of knowledge.

Character. A character is used to refer to a person, personified animal or supernatural being who is personified, who appears in the narrative-descriptive material examined.

III. ORGANIZATION OF THE STUDY

Method of Research. The research technique of content analysis seemed best suited to the problem under investigation. The unit of

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[18] Guilford, loc. cit.

[19] Cattell, loc. cit.

[20] McMurray and Cronbach, loc. cit.

analysis selected was the thought unit, or approximately one independent clause containing a subject and a predicate. All portions of the text classified as narrative-descriptive were analyzed in this manner, tabulated by character, and characters were further classified as to: human or animal, male or female, and child or adult.

Materials used. The required reading textbook for the sixth grade in the Omaha public schools, Wings to Adventure, by David H. Russell, Doris Gates, and Mabel Snedaker, one of the Ginn Basic Readers Series, was the text selected for analysis. Sections of the book which fell into the categories of directive, generalization, or theory, were excluded. Also excluded were poems that were primarily descriptive of scenery and without a central character, pages at the end of each section containing thought questions and suggestions for further reading, and the section "Tall Tales," pages 76 through 122, because this is a collection of nonsense tales in which humor is achieved through obvious absurdities.

Limitations of the study. This study was limited to the narrative-descriptive material only, since it was suggested by McMurray and Cronbach that this type of material requires closer scrutiny than directive, generalization, or theory:

> While they transmit values, they transmit them in a more disguised form than does the directive or ethical system. . . . Hence there is especial danger that narratives may communicate selected values without the communicator or the teacher realizing this fact.[21]

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[21] Ibid.

The manifest content only is to be included. That is, nothing is to be inferred as to the author's probable intent. Only instances of the indicators as listed in the instructions to the scorer are to be recorded.

No effort is made to evaluate the pupil's response to the material or his possible alterations in his behavior as a consequence.

This study does not attempt to evaluate the behavior categories in terms of their moral and ethical implications; that is, the question of whether one "should" act dependently or with self-reliance in any given situation is not within the scope of this study.

CHAPTER II

REVIEW OF RELATED LITERATURE

No reports appear in the literature concerning the specific problem under investigation. It was necessary therefore to review literature in the fields of education, journalism, communications research, and psychology in an effort to discover an appropriate method for objectively and quantitatively analyzing textual content.

I. EARLY STUDIES

The earliest studies of literary content were mostly literary critiques in which the main emphasis was on matters of style in writing. Treatment of data was mainly qualitative and subjective and therefore of little interest to this study.

The development of mass communication during the early part of this century led to a demand for scientific, accurate information about the reading public--their attitudes, opinions, and motivation for choosing a particular book, newspaper, or magazine. Much of the research in the field of journalism has been of this nature. Subject or topical classifications of news articles by broad classes, such as crime, financial, and international, are frequently used as methods of analysis.

Educators for a lengthy period of time were not particularly concerned with the content of texts. A glance at the titles summarized in the annual Summary of Reading Investigations by Gray, quickly reveals

that a majority of education researchers were concerned with problems in the teaching of reading, such as eye movements, rates of speed and comprehension, difficulty of vocabulary, and readability, rather than with what the reader says.[1] As a climax to numerous studies made just prior to that time, the National Society for the Study of Education published a yearbook in 1931 devoted entirely to the textbook.[2] Primary emphasis of researchers at that time is shown by the fact that eighteen chapters were devoted to typography, printing costs, scorecards for selection provisions for drill, and organization of material. One page is devoted to choice of content.

More helpful in defining text content is the recent comprehensive study at the University of Illinois.[3] Thoughtful consideration is given to the proper function of text materials in the educative process and the actual content of the textbooks in terms of present-day learning theory and communication theory.

Beginning with the 1930's a gradually increasing number of studies dealing with the actual content of texts began to appear.

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[1] William S. Gray, "Summary of Reading Investigations, July 1, 1950, to June 30, 1951," Journal of Educational Research, XLV, (February, 1952), pp. 401-437.

[2] J. B. Edmondson et. al., The Textbook in American Education, Thirtieth Yearbook of the National Society for the Study of Education, part II (Bloomington, Illinois: Public School Publishing Company, 1931).

[3] Lee J. Cronbach (ed.), Text Materials in Modern Education, A Comprehensive Theory and Platform for Research, (Urbana, Illinois: University of Illinois Press, 1955).

Nationalism in children's literature was investigated by Martin, under Lasswell's direction, in 1934.[4] This was an attempt to describe the nationalist influence in each of twenty-four children's books representing seventeen different countries. Her criterion for nationalistic symbols was the use of concrete nouns only, with the exception of abstractions dealing with war such as captivity and surrender. She checked the reliability of her classification by the method of split-half correlation.

Her assumption was that the justification for each classification appeared in so far as the relative popularity of each title among children of any country could be explained by the frequency or infrequency of symbols in each category. The validity of her nationalist emphasis was checked by relative amounts of arms expenditures of the various countries as given by the World Almanac. She also determined the relative popularity of each book as shown by library circulation and bookstore sales in various countries. She concluded that a proportion of less than ten per cent of nationalist symbols in a book increased its chances of being an international favorite, and that war books were most popular in the foreign countries making the largest expenditure for armaments.

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[4]Helen Martin, "Nationalism in Children's Literature," (unpublished Doctoral dissertation, Graduate Library School, University of Chicago, 1934). Abstracted in Library Quarterly, VI, 1936, pp. 405-418.

II. STUDIES OF THE EFFECTS OF READING

Lind, in 1936, investigating the effects of children's reading, obtained autobiographical statements of forty-four adults as to their childhood reading experiences.[5] She divided the reading into four classifications according to the reader's motivation (as she judged it): (1) escape reading, (2) temporary diversion, (3) defining the reader's conception of his role, and (4) relating to objective interests and attitudes. Reading that is objective, she states, also affects attitudes by defining objects and situations. She concludes that reading influences attitudes if the reader is able to make personal identification with the material read, and only if he can sustain his attitudes in some kind of group activity.

Her use of material which the subjects could recall raises the question of the accuracy of their memories. Also questionable is whether the subjects or the writer were able to determine accurately just what their motivation was in reading when they were children.

An extensive summary of evidence on the social effects of reading is presented by Waples, Berelson, and Bradshaw.[6] A topical outline defining the field of research implied in the phrase "the effects of

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[5] Katherine Lind, "The Social Psychology of Children's Reading," American Journal of Sociology, XLI, (January, 1936), pp. 454-469.

[6] Douglas Waples, Bernard Berelson, and Franklyn R. Bradshaw, What Reading Does to People: A Summary of Evidence on the Social Effects of Reading and a Statement of Problems for Research (Chicago: The University of Chicago Press, 1940).

reading" is given. Various factors which might be presumed to produce the effects are listed and classified and an ambitious program of research on a broad scale is mapped.

An attempt to answer the question of the probable effect on children's behavior of the reading they are required to do as part of their education was undertaken by Child, Potter, and Levine at Yale in 1946.[7] They examined third grade readers published since 1930 and selected 3409 "thema" from 914 stories for analysis. Their categories of behavior were adapted from Murray's elaborate classification of basic needs. Each thema was then analyzed by (1) character, (2) behavior displayed, (3) circumstances surrounding behavior, (4) consequences of behavior, and (5) type of story. Their assumption was that the child's behavior would be affected by reading these stories only if he generalized from the stories to his own behavior, and that the principles of reinforcement and avoidance learning would tend to cause the child to imitate those types of behavior which were rewarded and avoid those which were punished.

Their overall findings were that the readers generally reflect the cultural norms; effort as goal-directed activity is consistently rewarded; little encouragement is given to intellectual activity or construction; the acquisition of skills and knowledge is through dependence

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[7] Irwin L. Child, Elmer H. Potter, and Estelle M. Levine, "Children's Textbooks and Personality Development: an Exploration of the Social Psychology of Education," Psychological Monographs, 60, Number 3, (1946).

on a superior; problems arising from aggression are overlooked; steps toward maturity are often punished; boys predominate in the achievement category; girls are portrayed as sociable, kind, timid, unambitious, and uncreative.

The authors did not consider it necessary to seek quantitative indices of the reliability of various judgments in applying the various categories. The first ten books were analyzed by Potter and Child separately, the results compared, and the conclusion was reached that the reliability of their judgments was adequate for the purposes for which it was to be used. For the instances in which the categories overlapped or were difficult to classify, a judgment was made as to which was most prominent. This admittedly was not a method of securing highly reliable results. The selection of theme, a rather difficult term to define and apply precisely, as the unit of analysis is another instance in which subjective judgment had to be used. The validity of their assumption that the child would identify with the main character and subsequently alter his own behavior because a story character was rewarded or punished, might be questioned. This investigation was reported as an exploratory study, but no further work by these authors on this topic has been found.

III. STUDIES USING CONTENT ANALYSIS METHODS

In a study of family life in children's literature, Fisher studied forty-three books (excluding fairy tales and non-fiction) from a list of

elementary children's books compiled by Witty.[8] Each book was examined, every reference to family life of the main child character was recorded and categorized. Specific definitions of such terms as "child," "family," "broken home," "critical situation," and "independence" were set up as a basis for selecting and classifying material. Parent-child warmth, as shown by physical and verbal demonstrations, was analyzed. It was found that seventy-six per cent of the books showed instances of praise and approval, sixty-five per cent conversational companionship, fifty-three per cent reassurance and defense, fifty-one per cent physical contact, forty-eight per cent play companionship, twenty-eight per cent work companionship, and twenty-three per cent expressions of love.

The fostering of independence, specifically as related to bodily and personal property care, and to types of parental responses to children's independent actions, including both their approved and disapproved behavior, was also studied. The fostering of independence was evident to some extent in every story, although the degree varied. Few of the children showed signs of unusual independence. Approximately one-fourth of the children showed some independence in personal care.

Almost every family in the stories showed parental acceptance of the child's behavior at some time, usually behavior of an approved nature. The child's own decision or suggestion led to acceptance in over one-third of the story families. The conclusions as shown by her study were

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[8] Helen H. Fisher, "Family Life in Children's Literature," Elementary School Journal, 50, (May, 1950), pp. 516-520.

that the children's books analyzed show realism in the parent-child relationship and that a strong trend toward democratic, not autocratic, family life is evident.

An interesting example of trend analysis is a report on current studies of old school textbooks now in progress at the University of Pittsburgh.[9] A study of the 1837 McGuffey's reader showed 32.6 per cent devoted to religion and 11.2 per cent to morals, while the popular 1879 edition devoted 8.7 per cent to religion and 25.2 per cent to morals. This account is only a brief reporting and does not cite evidence of reliability or validity for any of these investigations.

Another example of trend and topical analysis is the study of McGuffey's readers by Estenson.[10] He lists five types of "motivation" categories and gives percentages of space devoted to each type, using his previous study of modern elementary readers of the year 1930 as a basis for comparison. The "Economic" category is virtually the same for both groups, approximately 25 per cent. The categories of "Nationalism," "Military," and "International" show differences barely sufficient to be judged significant, but the "Religious" category declines from 38.7 per cent in McGuffey's to 12.0 per cent in the modern readers. He suggests as implications that the American people today, as before, lay great

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[9]John A. Nietz, "A Gift of Old School Textbooks," School and Society, LXXXVII, (September 12, 1959), pp. 340-41.

[10]E. V. Estenson, "McGuffey: A Statistical Analysis," Journal of Educational Research, 39, (1946), p. 446.

stress on economic matters, and that the separation of church and state accounts for the lesser emphasis today on religious matters.

Such studies are useful in determining trends, but they do not offer much to the educator who is trying to evaluate a text which is presently in use. Topical categories do not tell much about "what is said." The "what is said" category, which describes meaning or concept, is the most difficult to define and validate.

Some critics have called modern readers frivolous, lacking in educative value, and attuned to mediocrity. In an investigation into this charge, Hollins used content analysis in a comparative study of six most used modern readers and six McGuffey's readers, representing grades one through six.[11] He found evidence to support his hypothesis that the McGuffey and the modern readers would contain similar kinds of content and that similar ideas and attitudes might be derived from each. He used such class categories as: Adventure, Entertainment, and Education, and group values categories of Perseverance, Honorableness, and Honesty. A panel of five judges, four teachers and a secretary, was organized to test the validity of his categories by means of a random sub-sample. A low correlation coefficient of .58 and a high of .91 resulted from analyses by the judges and all correlations were judged statistically significant. The unit of analysis was the entire lesson.

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[11]Walter Havre Hollins, "A Comparative Content Analysis of a Sample of McGuffey's and Modern Elementary School Readers," Dissertation Abstracts 20, 3, (January-March, 1960), p. 3124.

Each lesson was assigned to a class category and a group value category, with the aid of indicators.

He found that both series of readers, with few exceptions, had identical kinds of content, though the quantities varied. The major exceptions were that Religion, under the class category, and Reverence and Inevitableness, under the group values category, were absent from the modern readers.

Stories in children's magazines of yesterday and today were compared in a study by Sward and Harris.[12] The authors compared St. Nicholas, an early children's magazine, with a modern children's magazine, Child Life, in three different respects: (1) readability, using the Flesch formula, (2) human interest, and (3) theme and motivation of content. For the latter, the content analysis, they used the elaborate system of theme and motivation categories developed by Child.[13] Overall findings were that a great degree of similarity existed between the samples used of the two magazines, with regard to readability and human interest. Content analysis revealed similar theme and motivation, with these differences: a significant increase in altruistic social behavior and a corresponding decrease in nurturance, succorance, and deference; a proportionate increase in the number of adult characters, which almost doubled. Relatively little shift was noted over three-quarters

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[12]Barbara Sward and Dale B. Harris, "The Reading Ease, Human Interest Value, and Thematic Content of St. Nicholas Magazine: A Study of Children's Literature," Journal of Educational Psychology, 42, (March, 1951), pp. 153-165.

[13]Child, Potter, and Levine, loc. cit.

of a century in reward and punishment. The authors felt it necessary to add an impressionistic observation, not shown in the quantitative analysis of the data, that the earlier stories tended to treat children as immature, while later stories showed children solving problems often baffling to adults and using materials and methods ordinarily accessible only to adults. This latter observation indicates that all the data of interest is not always revealed in a quantitative analysis, and that some qualitative treatment is often advisable.

IV. STUDIES IN THE FIELD OF PSYCHOLOGY

Judging by the scarcity of studies in the field of textbook content analysis by psychologists, it seems that this area has been comparatively neglected. Only two textbook studies were found in the field of psychology. One was an investigation into Freud's dream theory as presented in American textbooks.[14] About 350 texts were analyzed with particular attention to such expressions as "the unconscious," "manifest-latent," "censor," and other particularly Freudian concepts. No report is given as to reliability or validity. All coding was done by one author in continuous discussion with the other two, in an apparent effort to avoid the problem of inter-judge agreement on some rather complicated categories. General findings were that while Freud's views are not

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[14] Hans Herma, Ernst Kris and Joseph Shor, "Freud's Theory of the Dream in American Textbooks," Journal of Abnormal and Social Psychology, 48, (1943), pp. 319-334.

generally accepted, no alternative theory is offered; in general, psychology texts show a decreasing interest in the study of the dream in the last five years; parts of Freud's theory are being integrated into the general body of knowledge, but acceptance tends to be anonymous and rejection is personalized. This study was done in 1943.

Thirteen high school psychology texts were analyzed by Engle, with special emphasis on seven of them, to determine whether different authors devoted the same amount of space to certain subjects.[15] He concluded that in spite of a similarity of stated aims in the prefaces of the texts, psychology has no commonly accepted content material, as there was a wide variation among texts studied. In general, he found that high school texts devote more space to personal and social problems, study habits, vocational guidance and adjustment, and tend to minimize the biological foundations of psychology, statistics, and learning, in comparison with college texts. He also analyzed the books by number of pages devoted to the development of knowledge, skills, and attitudes, though he admits the category of attitudes would also include much of the material classified under knowledge. His selection of categories and definition of terms might therefore be questioned.

A study of mental hygiene literature was made by Tyson to determine whether the material was devoted more to explanatory or to

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[15] T. L. Engle, "An Analysis of High School Textbooks in Psychology," School Review, 58, (1950), pp. 343-47.

directive writing, such as the giving of advice.[16] He analyzed books of abnormal psychology, mental hygiene textbooks, popular books such as Peace of Mind, and popular journals such as Your Life. He found the average number of directives per page increased, in the following order: least directive and most informative were books of abnormal psychology; next were mental hygiene texts; next the popular books, and last, the most directive, were popular journals.

With respect to the factor of self-reliance vs. dependence, much excellent work has been done in psychology. A few studies which seem most appropriate to this paper will be summarized here.

In 1933 Bernreuter developed a test of self-sufficiency.[17] In order to check the validity of his scale, he devised a rating blank which contained separate ratings of what he considered to be four aspects of self-sufficiency: the need for empathy, appreciation, and encouragement; the desire to be alone; the frequency of asking for advice; and the ability to handle responsibility. He found that these corresponded sufficiently with the items on his scale to assure its validity.

The interview technique was used by Stagner to investigate the validity and reliability of the Bernreuter Personality Inventory.[18]

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[16] Robert Tyson, "The Content of Mental Hygiene Literature," Journal of Clinical Psychology, 5, (1949), pp. 109-114.

[17] Bernreuter, loc. cit.

[18] Ross Stagner, "Validity and Reliability of the Bernreuter Personality Inventory," Journal of Abnormal and Social Psychology, 28, (1934), pp. 413-418.

He found that the scale measured, among other things, one aspect of what he called introversion. He noted that high scores were found to be associated with a certain independence, mainly intellectual, and low scores with a tendency to dislike solitude and lean on others. He found the validity to be high throughout the distribution.

In a study designed to develop a scale for objectively and quantitatively measuring self-reliance in young people, Stott administered a scale of thirty items which he had constructed for the purpose, to six hundred fifty high school sophomores in Lincoln, Nebraska.[19] By factor analysis he identified at least four aspects of self-reliance: independence of decision in personal matters; efficiency in the use of time; resourcefulness, dependability, and the willingness to work in groups; and responsibility in meeting obligations.

In 1953 Lorr and Rubenstein studied a group of psychiatric outpatients, hypothesizing the concepts of passive dependence vs. assertive independence.[20] Their findings included several factors pertinent to this study: a continuum of dependent immaturity vs. independent maturity in which the individual assumes responsibility for his conduct; a factor of a sense of personal adequacy; and a factor of conscientiousness.

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[19] Leland H. Stott, "An Analytical Study of Self-Reliance," Journal of Psychology, 5, (1938), pp. 107-116.

[20] Maurice Lorr and Mil A. Rubenstein, "Factors Descriptive of Psychiatric Outpatients," Journal of Abnormal and Social Psychology, 51, (1953), p. 517.

In a factor analysis study of human interests, Guilford, Christensen, Bond, and Sutton found the factor of "self-reliance vs. dependence, which arose mainly from tests under the hypothesis of RESPONSIBILITY on the positive side and SUPPORT on the negative side."[21]

Interesting from the viewpoint of method is the study by Dollard and Mowrer on the measurement of tension in written documents.[22] The study was undertaken to determine whether welfare cases were approaching a satisfactory solution in order that they might be removed from the relief rolls. The writers hypothesized that the amount of tension or relief which showed up in the case study reports might be a reliable indicator, and conducted a detailed investigation to determine if this were true. They worked out the following procedure: an actual case study was reproduced and given, with pages in random order, to a number of scorers to be scored in accordance with a set of detailed instructions. The scorer was instructed to read the sentence, mark in the margin "plus" if he felt the sentence indicated relief from tension, "minus" if he felt that discomfort or tension was shown, and "zero" if he was doubtful or felt that neither was shown. All material was scored whether the remark was made by the social worker or client.

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[21]Joy Paul Guilford, Paul R. Christensen, Nicholas A. Bond, Jr., and Marcella A. Sutton, "A Factor Analysis Study of Human Interests," Psychological Monographs, 68, Number 375, (1954), pp. 1-38.

[22]John Dollard and O. Hobart Mowrer, "A Method of Measuring Tension in Written Documents," Journal of Abnormal and Social Psychology 42, (1947), pp. 3-32.

Three different methods of scoring were tried; by word, by sentence, and by thought unit. They preferred the thought-unit method, as it eliminated sources of confusion inherent in the other two methods. The average intercorrelation for the ten scorers was .88 by thought unit, .80 by word method, and .81 by sentence. They also checked the accuracy of clause identification by various scorers and found that the consistency with which scorers identified clauses was lower, .64, but though the absolute number of clauses identified varied, the relative number of "plus" or "minus" units remained fairly constant.

The total number of discomfort items was recorded, the total relief items, and the degree of discomfort-relief present determined by the formula:

$$\frac{\text{Discomfort Words}}{\text{Discomfort + Relief Words}} = \text{DRQ, or Discomfort-Relief Quotient}$$

The results were expressed on a graph. It was found that the curves coincided to a remarkable degree with the actual crises or improvements in the case, plotted on a graph in terms of highs and lows.

In an effort to rule out the possibility that these results were due to chance, thirty-nine other cases were scored by two scorers each, using the same directions. It was found that these also coincided to a great extent with the actual curves for each case. The authors concluded that they had found a reliable method for quantifying the presence of tensions in the case record.

CHAPTER III

PROCEDURE

The final design of the investigation evolved gradually through the process of reviewing the literature and consideration of various possible methods of attack on the problem, and in evaluating techniques found useful by other experimenters.

I. RESEARCH PROCEDURE

Preliminary survey. A number of different approaches were investigated in a preliminary survey of a random sub-sample of pages from the text. Tentative categories of self-reliance and dependence were roughly defined. The analysis of each story as a whole, by listing the major goals of the major characters and means used to achieve these goals, was attempted. However, this proved ineffective because of the difficulty of singling out and separating goals and behavior patterns which overlapped and were quite complexly related.

The method of reading a sentence and responding by an immediate decision of self-reliant or dependent, or not relevant, was investigated next. This is essentially the same method used by Dollard and Mowrer in their Discomfort-Relief study.[1] In order to obtain a rough estimate of the usefulness of this method in analyzing children's books, the

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[1] Dollard and Mowrer, loc. cit.

stories of The Little Engine That Could and Tootle were analyzed by sentence units in this manner, as to self-reliance, dependence, or not relevant.

Results seemed to correspond reasonably well with the subjective impression of the stories. The little engine who said "I think I can" and puffed over the hill by his own efforts scored forty-one self-reliant and no dependent units. On the other hand, Tootle, the engine who finally learned to stay on the track when the engineer, the mayor and all the villagers hid in the meadow and waved red flags at him, scored fifty-five self-reliant and forty-one dependent units.

Since this method seemed reasonably successful, several pages from the text were given to another judge to score by the same method. A comparison of scores with the writer's scores for the same pages showed that a more exact definition of the unit of analysis was needed, and also that the categories were not clearly enough defined.

The unit of analysis. Many investigators have used a large unit of analysis such as a whole story, or a behavior sequence such as Child, Potter and Levine's "thema."[2] Such a large unit was considered inadequate for this analysis, since in one story there might be several characters who might each show several instances of self-reliant or dependent behavior and it seemed that to judge the story as a whole, as self-reliant or dependent, would not give a true picture. The Dollard and Mowrer

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[2]Child, Potter, and Levine, loc. cit.

study[3] had investigated three smaller units of analysis, the word, the sentence, and the thought-unit, and had found that the thought-unit obtained the highest intercorrelation among scorers. Accordingly the thought-unit was selected as the unit of analysis for the present investigation.

Methodology in content analysis. One of the most frequent problems encountered in psychological research is the question of judges' estimation of some sort of qualitative material. In an article concerning the validation of categories, Schutz states that the usual comparison-with-chance statistics are not adequate for evaluating the per cent of agreement between judges on rating an item with respect to certain categories.[4] He introduces a statistic which gives the probability that the judges are all using the criteria given them and not chance. Several probability levels are given. Tables are presented which essentially take into account both the empirical per cent agreement due to chance, and the total number of judgments made, as a factor in reliability considerations. Choice of a probability level suitable for each particular study, he states, must be determined by the investigator, depending upon the ambiguity within the judging situation and taking into consideration other studies that have been done.

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[3] Dollard and Mowrer, loc. cit.

[4] William C. Schutz, "Reliability, Ambiguity, and Content Analysis," Psychological Review, 59, (1952), pp. 119-129.

Another problem frequently encountered is that the categories originally selected are often uneven and equivocal, or not on the same level. Regarding this problem, Schutz states:

> Actually, one category takes priority over another in the sense that the experimenter wants the judge to first make the judgment with respect to one category, and then *if*, and only if, the item cannot be put into that category to judge it with respect to the other category.[5]

For each unitary characteristic, he continues, criteria should be constructed to serve as a basis for a dichotomous decision: this item either does, or does not, meet those criteria. It is essential, therefore, to separate criteria into logical levels so that the judges are asked to consider only one dichotomous decision at a time.

An attempt to codify existing empirical research in the broad field of content analysis was made by Barcus in 1959.[6] He examined 1719 studies, including studies of newspapers, magazines, books, radio, television, and movies, and attempted to explore some of the basic theoretical problems and to provide some generalizations based on the findings of other investigators. He proposed a set of criteria for content analysis as follows: (1) General scientific adequacy. Problems should be theoretically derived, variables should be thoroughly defined,

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[5] William C. Schutz, "On Categorizing Qualitative Data in Content Analysis," Public Opinion Quarterly, 22, (1958-1959), p. 505.

[6] Francis Earle Barcus, "Communications Content: Analysis of the Research, 1900-1958 (A Content Analysis of Content Analysis)" (unpublished Doctoral dissertation, The University of Illinois, Urbana, 1959).

the analysis should be methodologically adequate in sampling, coding, and selection of units for analysis, and should lead to hypotheses for further research. (2) The primary focus must be on the content of the message. (3) The role of the analyst is important in that he draws on his theoretical background to seek out normally unperceived meanings. (4) The problem must be systematically and consistently treated through explicit categories.

Formulation of instructions to the scorer. A detailed set of instructions to the scorer was prepared. As a guide to the preparation of the table of indicators for judging categories, the literature was reviewed carefully, and it was determined that indicators should follow as closely as possible the terminology used by Guilford,[7] Cattell,[8] Bernreuter,[9] and Stott[10] in their discussions of self-reliance. Instructions to the scorer consisted of the following three parts: (1) General orientation for scorers, (2) Specific instructions for scorers, and (3) a table of indicators for scoring units as to self-reliant or dependent.

General orientation for scorers. For this study we are interested only in one particular aspect of behavior, the self-reliant vs. dependent aspect. In general, we accept the descriptions of self-reliance vs. dependence given by Guilford, Cattell, Stott, and Bernreuter: the self-reliant person likes to do things without help, takes care of

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[7] Guilford, loc. cit.

[8] Cattell, loc. cit.

[9] Bernreuter, loc. cit.

[10] Stott, loc. cit.

himself, knows what to do, and uses common sense in handling his affairs; the dependent person appeals to others for help in a somewhat anxious, dependent way, is impractical, does not show good common sense in handling his affairs. The self-reliant person prefers to make his own decisions, is willing to act on his own judgment and assume responsibility for the consequences. He rarely asks or accepts assistance from others except when convinced by previous failures that he needs it. He promptly, and of his own accord, chooses the activity in which he is to engage. He shows resourcefulness, dependability, and willingness to work in groups, efficiency in the use of time, independence of decision in personal matters, and is conscientious.

A separate table listing the indicators you are to use for scoring the categories is included in the instructions. You may refer to this at any time.

In content analysis, it is desirable to achieve maximum agreement among judges and at the same time to allow maximum independence among judgments in order to utilize the background and past experience of the judge for the scoring task. You are asked to use your background in psychology in scoring the following pages, at the same time following as closely as possible the instructions provided, and being as consistent as possible in your judgments.

In assessing behavior we customarily make many value judgments almost simultaneously, such as whether we like something or not, whether it is good or bad, advantageous to us or not, and so on. You may find it

difficult at first to concentrate exclusively on this one facet of behavior. In a certain sense, we cannot separate either aptitudes or temperament completely from motivation in the operating organism. However, for the purposes of this study it is necessary to separate the self-reliant vs. dependent aspect. Do your best to concentrate on this, and score all other aspects "N." (Neither, or Not Relevant.)

Obviously, most of human behavior is inter-dependent when judged in terms of society as a whole. Yet this is made up of countless discrete acts by each individual which may be judged as either self-reliant or dependent. Life is a series of continuous immediate adjustments to environmental conditions.

The meaning of behavior, both in terms of its causes and possible consequences, usually is quite ambiguous and its interpretation often quite difficult. Therefore, it would seem advisable not to attempt to interpret, evaluate, or assign meanings to statements unless you are reasonably certain that it will be consistently scored thus by others. If in doubt, score N.

Ordinarily we also note many non-verbal factors in behavior--a person's posture, for example, may eloquently show his approach to life. Drooping shoulders, a sad expression, may indicate defeat and dejection. A brisk step, a head carried proudly, may indicate self-confidence and self-reliance.

A practice session will be given first, because it is desirable that you develop the orientation required by this study and that you work

as consistently as possible. Please work independently and do not discuss your work with anyone. This will help to determine if instructions are sufficiently detailed and will assist in determining the validity of the categories.

Please note any difficulties on the extra sheet of paper provided.

Specific instructions for scorers.

A. Identification of units for analysis. Each page must be divided into a number of smaller thought-units, which are, basically, one independent clause. Sometimes a sentence will contain only one such clause: "The contest was open to all 4-H boys who were exhibitors at the fair." Sometimes a sentence has a compound predicate and thus contains two or more such independent clauses, and it is necessary to divide it and insert a pronoun as subject for the second half of the sentence: "Sammy sat beside his father and watched admiringly as Phil Roberts went by, leading his champion steer," actually means, "Sammy sat beside his father. (He) watched admiringly as Phil Roberts went by. (Phil) was leading his champion steer."

"Good for you, Phil," said Sammy sincerely, hoping the fellows wouldn't notice his recent tears," should be divided thus: "Good for you, Phil," said Sammy sincerely. (He was) hoping the fellows wouldn't notice his recent tears."

Indirect or direct quotations: "'Where are you going?' he asked." Score as 1 unit. "He said that he was tired." Score as 1 unit.

If a parenthetical clause is non-restrictive, if it can stand alone and does not distort the meaning of the rest of the sentence when taken away, it can be treated as independent. "Mr. Mason, who is a lawyer, began to speak," should be divided thus: "Mr. Mason is a lawyer. (He) began to speak." However, "The man who is a lawyer stood up to speak," cannot be divided, because "who is a lawyer" is necessary to identify the man who spoke, and cannot be removed without distorting the remainder of the sentence.

Adverbial clauses of time introduced by "when" or "after" may be treated as independent when they describe two separate actions: "When she saw the flag, she stopped quickly," should be divided: "She saw the flag. She stopped quickly." Likewise, a participial phrase used in this manner may be treated as an independent unit: "Seeing the flag, she stopped quickly," is equivalent to saying "She saw the flag. She stopped quickly."

Adverbial clauses introduced by "since," "because," "as," "if," or "although," usually may not be removed without distorting the meaning of the remainder of the sentence: "Although anyone could see Tom felt proud of his new importance, he didn't act that way," should be scored as 1 unit.

B. Numbering units. After you have identified the units for analysis by drawing a vertical line at the end of each unit, number them consecutively starting with 1 at the top of each page.

C. Judging units. Read each unit, and immediately record in the margin opposite your judgment as to the following:

Decision 1. Does this pertain to the Self-reliant vs. Dependent aspect of behavior or not? If not relevent, or if you are doubtful, score "N." If it does apply, go on to decision 2.

Decision 2. Is this action or idea described indicative mainly of Self-reliant, or Dependent behavior? Score "S," or "D," and the name of the character to whom it applies. If it seems to you that the thought-unit describes self-reliant behavior by one person and dependent behavior by another, score thus: "S--Jim; D--Joe."

Score for any major or minor character or personified animal, or supernatural being who appears in the text. Do not attempt to score for groups of people mentioned in a general way. "The businessmen of Fairview donated money to purchase calves for the 4-H boys." Score "N."

Units which are descriptions of scenery score "N."

Ignore tense; treat past and future as present.

Imperatives: If someone gives orders to someone else, it does not necessarily mean that the one who commands is self-reliant, nor that the one spoken to is dependent. (He may not obey, or he may have already decided, on his own, to do it.) Use your own judgment in each case.

Questions: In general, score "S" unless they are a request for aid or expression of helplessness.

In general, score one unit at a time, as you read. Do not attempt to interpret the action in the light of a later result. Do you think the character was acting at the time self-reliantly, or dependently?

Conformity does not necessarily mean dependence. It can mean adoption of group precepts as principles of self-direction, according to Guilford.

Do not confuse ability with self-reliance. "He is intelligent" and "She dances well" are generalized statements indicating skill or ability, not necessarily self-reliance.

Many routine acts of living would score "S." "He dressed, ate his breakfast, and walked to school." Each unit scores "S." Even the simple act of speaking indicates social participation, and thus should be scored "S," unless of course the content of the speech is a request for aid or assistance. "Help! he cried." Score "D."

Use the indicators listed in the following table as your criteria for your judgment of "S" or "D."

TABLE I

INDICATORS FOR SCORING

Self-reliant (Code: S)	Dependent (Code: D)
Depends on own judgment	Depends on luck or others
Dependable (scrupulous in discharging his obligations)	Undependable (careless in discharging his obligations)
Does not crave attention or approval	Craves attention or approval
Does not ask aid or advice	Asks aid and advice
Does not expect to be waited on	Expects to be waited on
Shows sense of responsibility	Shows no responsibility
Not subservient or submissive	Subservient or submissive
Conscientious	Not conscientious
Shows concern for others	Shows no concern for others
Sees a task through	Does not finish task
Makes no use of complaints	Often complains
Has consideration for tomorrow	Has no consideration for tomorrow
Ambitious, resourceful	Unambitious, not resourceful
Takes social initiative, participates	Stays in background, does not participate voluntarily
Does things willingly, spontaneously	Has to be told what to do
Self-assurance (feels confident, efficient)	Self-distrust (feels inadequate, inefficient)

Testing the validity of the categories. Most authorities on content analysis state that an empirical demonstration of the validity of the categories selected is essential. To determine the validity of the categories, ten pages chosen at random throughout the text were reproduced on separate sheets of paper, and were scored independently by the writer and two other persons who have a background in the study of psychology, Geraldine Neevan, who received the Master's degree in Psychology at Omaha University in 1960, and Mildred Terry, a graduate intern in the Psychology Department in 1962.

A practice session was given first to acquaint the scorers with the purpose of the investigation and the procedure to be followed. This was considered necessary because Barcus in his discussion of methodology stresses the importance of instruction and training in content analysis technique for the scorers or judges.

> When the judges or coders classify content with little or no instruction or training in the approach or concepts of the analyst, they are essentially part of the audience--and in effect transform the operation into one of reaction or response analysis rather than of content analysis.[11]

The decisions of the scorers were then tabulated on a separate sheet and the percentage agreement for the category was computed, in accordance with the method suggested by Schutz.[12] First, the "correct" decision was determined by consensus of scorers, then the number of

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[11] Barcus, op. cit., p. 27.

[12] William C. Schutz, "Reliability, Ambiguity and Content Analysis," Psychological Review, 59, (1952), p. 120.

scorers who agreed with that decision, as well as the total number of judgments made, was recorded. These proportions from all items were added and a percentage agreement for the category was computed separately for Decision 1, (Relevant or Not) and Decision 2, (Self-reliant or Dependent). The following table shows the method of scoring used, as reproduced from Schutz.[13]

Item	Number of judges agreeing with "correct" decision	Total judgments made
1	S_1	t_1
2	S_2	t_2
3	S_3	t_3
.	.	.
.	.	.
n	S_n	t_n
	$\sum_{i=1}^{n} S_i$	$\sum_{k=1}^{n} t_k$

The percentage agreement for the category $\frac{\sum_{i=1}^{n} S_i}{\sum_{1}^{n} t} \times 100$

[13] Ibid.

The empirical agreement of .90 was obtained by this procedure for Decision 1, (Relevant or Not Relevant), for a total of 663 judgments. Schutz' Table II for 85 per cent level of acceptance shows that the empirical agreement necessary for 700 items is .90 at both .01 and .05 level of confidence. Therefore, Decision 1, with a .90 empirical agreement, was considered to be acceptable at the .85 agreement level.

The empirical agreement obtained for Decision 2, (Self-reliant or Dependent), with a total of 384 judgments, was .95. Schutz' Table I (for .90 agreement level) shows that the empirical agreement necessary for 400 items is .94 (for both .01 and .05 confidence levels). Therefore Decision 2, (Self-reliant or dependent), was considered to be acceptable at the .90 agreement level.

Scoring the text. After establishing the validity of the categories, each relevant page of the text, a total of 355 pages, was scored by the writer, using the same method. Characters were also scored as to the following designative categories: Human or Animal, Child or Adult, and Male or Female. These designative categories were not tested for reliability since they were merely a symbol count and in general subject only to clerical error, not differences in judgment.

Tabulation of results. Results were tabulated on separate sheets, showing total Self-reliant units and total Dependent units for each character in each story.

CHAPTER IV

RESULTS

I. ANALYSIS BY STORY AND CHARACTER

Stories analyzed. The results of the analysis by stories, and for each character in the story, showing the frequencies of Self-reliant and Dependent units found in each category, are revealed in Table III. This table shows that by far the greatest number of items falls into the Self-reliant category, and comparatively few in the Dependent category. In addition, it will be noted that the sub-categories of Boys and Men have a considerably higher number of Self-reliant units than Girls, Women, or Animals. The exceptions to this are the four stories in the unit of Animal Adventures, which contain a larger number of entries under the sub-classification Animal. The sub-category, Animals, also shows many more Self-reliant than Dependent units.

A comparison of the total number of units for all stories under both Self-reliant and Dependent shows:

	Boys	Girls	Men	Women	Animals
Self-reliant	1,378	385	1,007	238	303
Dependent	145	95	127	44	44

A study of these totals reveals that boys, 1,378 units, and men, 1,007 units, are used much more often as story characters, and that they are presented as more self-reliant than girls, 385 units, women, 238 units, or animals, 303 units. The fact that more stories were about boys than

TABLE II

FREQUENCIES OF SELF-RELIANT AND DEPENDENT UNITS
FOR EACH STORY AND CHARACTER

Title	Character	Self-Reliant					Dependent					Not R*	Total units
		Boys	Girls	Men	Women	Animals	Boys	Girls	Men	Women	Animals		
"A Look at the Grand Champion"	Sammy	67					10						
	Phil	18											
	Calf					10						80	185
"A Gift from Confucius"	Rachel		59										
	Bozzy		23										
	Father			18									
	Mr. H.			13									
	Man			7									
	Boy	8										63	181
"The Lime Kiln"	Jay	9											
	Garnet		43					8					
	Eric	56					13						
	Father			21									
	Mr. F.			13									
	Hausers			5									
	Mother				6								
	Eric's father			3					4				
	Major					3						90	274
"Blue Willow"	Janey		71					3					
	Dad			29					9				
	Mom				16					13			
	Bounce			22									
	Mr. A.			24									
	Doctor			11									
	Mrs. A.				1								
	Lupe		6									301	506

*Not relevant

TABLE II. (continued)

Title	Character	Self-Reliant					Dependent					Not R*	Total units
		Boys	Girls	Men	Women	Animals	Boys	Girls	Men	Women	Animals		
"Carca, the Wolverine"	Carca					72					5		
	Whisper-foot					28					3		
	Annie				15					5			
	Scotty			7									
	Sandy	2											
	Ole			1								34	172
"Tembo in the Moss-draped Forest"	Tembo					3					3		
	Mother					43							
	Lion					16					6		
	Bird					6					1	16	94
"Beavers to the Rescue"	Johnny	51											
	Sam			36									
	Man			6									
	Mom				5								
	Dad			6								73	177
"Behind the Fire Lines"	Tom	118					14						
	Chief			70									
	Bert			19					4				
	Sandy			3					2				
	Peters			4									
	Man			7					1			110	352

*Not relevant

TABLE II: (continued)

Title	Character	Self-Reliant					Dependent					Not R*	Total units
		Boys	Girls	Men	Women	Animals	Boys	Girls	Men	Women	Animals		
"Wild-Horse Roundup"	Don	41					2						
	Stallion					34					10		
	Mare					19					5		
	Father			21								61	193
"Nanook"	Nanook					53					7		
	Nerktoshar			35					2				
	Angekok			15									
	Dogs					6						57	175
"Water and the Land"	Mr. Shepherd			28					17				
	Mrs. S.				16					6			
	Edward			9									
	Katherine				5								
	Mrs. C.				2								
	Mr. C.			1									
	Tommy	1										46	131
"The House that Stayed"	Jimmy	32					3						
	Ginger		4										
	Father			11									
	Mother				2								
	Hubert	18					3						
	Mr. Smith			8									
	Don	3					1						
	David	2											
	Kate		1										
	Taffy		1										
	Skinny	2											
	Sonny	1										108	200

*Not relevant

TABLE II (continued)

Title	Character	Self-Reliant					Dependent					Not R*	Total units
		Boys	Girls	Men	Women	Animals	Boys	Girls	Men	Women	Animals		
"The Picture in the Window"	Alan	37					2						
	Father			5									
	Dame C.				6								
	Basil			2									
	Angelo			52					6				
	Abbott			1								74	185
"Rivers for Washington"	David	44					4						
	Rolfe	37					5						
	Tim	7											
	Washington			9					3				
	Jacques			28					7				
	Indian			3					1			65	203
"Lonnie's Landing"	Lonnie	53											
	Bruce	60					1						
	Grandpa			30					1				
	Mam			22								92	259
"Spilled Berries"	Libby		30					4					
	Aunt Betsy				47					3			
	Ram					8					1		
	Mother				9								
	Father			4									
	Eli			18					6				
	Reuben			3								62	195

*Not relevant

TABLE II: (continued)

Title	Character	Self-Reliant					Dependent					Not R*	Total units
		Boys	Girls	Men	Women	Animals	Boys	Girls	Men	Women	Animals		
"Two Logs Crossing"	John	84					15						
	Father								2				
	Seth			16									
	Judge			10									
	Mother									1		63	191
"Whitey and the Rustlers"	Whitey	80					4						
	Uncle Torwal			27									
	Spot					1							
	Sheriff			13									
	Deputy			1									
	Mr. Beasly			1								79	206
"The Wolf Pit"	Betsy		89					47					
	Cousin Ann				39								
	Uncle Henry			1									
	Molly		9					33					
	Sheep					10					3	68	299
"Three without Fear"	Dave	74					22						
	Pedro	54											
	Maria		12										
	Mother				2					1			
	Father			2									
	Dog					1						102	270

*Not relevant

TABLE II (continued)

Title	Character	Self-Reliant					Dependent					Not R*	Total units
		Boys	Girls	Men	Women	Animals	Boys	Girls	Men	Women	Animals		
"Test Dive"	Louis	24					26						
	Captain Marvin			14									
	Hanson			27					1			95	187
"The Trojan Horse"	Odysseus			8									
	Sinon			5									
	Helen									1			
	Menelaus								3				
	Paris			3								70	90
"Demeter and Persephone"	Demeter				14					3			
	Persephone				5					8			
	Pluto			11					2				
	Arethusa				4								
	Nymph				2					1			
	Zeus			2									
	Fates				1							29	82
"David and Goliath"	David	32					1						
	Saul			6									
	Goliath			12									
	Jesse			3									
	Eliab			1								26	81
"The Sorcerer's Apprentice"	Boy	54											
	Sorcerer			16								25	95

*Not relevant

TABLE II (continued)

Title	Character	Self-Reliant					Dependent					Not R*	Total units
		Boys	Girls	Men	Women	Animals	Boys	Girls	Men	Women	Animals		
"The Emperor's New Clothes"	Emperor			13					24				
	Rogues			36									
	Minister			3					16				
	Official			3					8				
	Attendants			4					1				
	Child	1											
	Father			1								49	169
"Boiling the Billy"	Jimmy	34											
	Janet		11										
	Father			6									
	Mother				1								
	Mr. Greene		13										
	Dennis	10											
	Ann		2										
	Mrs. Greene				3								
	Sylvia		1										
	Roger	4					2					108	195
"The Bomberos of Guayaquil"	Luis	90											
	Inspector			1									
	Pilot			3									
	Policemen			1									
	Foreman			1									
	Waiter			2									
	Librarian				4								
	Chief			11									
	Bomberos			4									
	Captain			1								128	246

*Not relevant

TABLE II (continued)

Title	Character		Self-Reliant					Dependent					Not R*	Total units
		Boys	Girls	Men	Women	Animals	Boys	Girls	Men	Women	Animals		
"Yu Lan, Flying Boy of China"	Yu Lan	74					14						
	Mr. Kung			21					1				
	Mrs. Kung				15					2			
	Jimmy			52					4			110	293
"Pancakes—Paris"	Charles	76					3						
	Zezette		2										
	Father								2				
	Mother				6								
	Louise		8										
	Paul	4											
	Remi	9											
	Jules	7											
	Jerry			22									
	John			21									
	Porter			2									
	Lady				10								
	Girl				2							116	290
Totals for all stories		1,378	385	1,007	238	303	145	95	127	44	44		

*Not relevant

girls was also noted by Child, Potter, and Levine[1] in their study of third grade readers.

Poems analyzed. Two poems were analyzed, "Abou Ben Adhem" and "The Rivers Remember." The first showed six Self-reliant units for Abou, eight for the Angel, and no Dependent units. The second poem, about George Washington, showed 14 Self-reliant units for Washington, no Dependent units, and 22 Not relevant units. This indicates that the characters in these poems are portrayed as completely self-reliant.

II. SUB-CLASSIFICATION OF MAIN CHARACTER IN EACH STORY

When the main character of each story is sub-classified as to Boys, Girls, Men, Women, or Animals, the following results appear:

Boys	Girls	Men	Women	Animals
21	6	3	3	4

Some overlap is indicated here, as some of the total of thirty stories are about two boys, a boy and a girl, or a husband and wife. This shows that more than three times as many boys as girls are used as main characters.

III. PER CENT OF SELF-RELIANT AND DEPENDENT UNITS

The total number of units analyzed and the number and per cent of the Self-reliant and Dependent units found in each story as a whole, are presented in Table III.

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[1] Child, Potter, and Levine, loc. cit.

TABLE III

TOTAL UNITS ANALYZED, AND NUMBER AND PER CENT OF SELF-RELIANT AND DEPENDENT UNITS FOUND IN EACH STORY

Title	Total units in story	Number of Self-reliant units	Per cent of Self-reliant units	Number of Dependent Units	Per cent of Dependent units
"The Sorcerer's Apprentice"	95	70	73.6	0	0
"Carca, the Wolverine"	172	125	72.6	13	7.5
"Tembo in the Moss-draped Forest"	94	68	72.3	10	10.6
"David and Goliath"	81	54	66.6	1	1.2
"A Gift from Confucius"	181	118	65	0	0
"Lonnie's Landing"	259	165	63.7	2	.7
"Rivers for Washington"	203	128	63	20	9.8
"Behind the Fire Lines"	352	145	62.7	21	5.9
"Spilled Berries"	195	119	61	14	7.1
"Whitey and the Rustlers"	206	123	59.7	4	1.9
"Wild-Horse Roundup"	193	115	59.5	17	8.8
"Beavers to the Rescue"	177	104	58.7	0	0
"The Lime Kiln"	274	159	58.3	25	9.1
"Pancakes--Paris"	290	169	58.2	5	1.7
"Two Logs Crossing"	191	110	57.5	18	9.4
"The Picture in the Window"	185	103	55.6	8	4.3
"Yu Lan, Flying Boy of China"	293	162	55.2	21	7.1
"Three Without Fear"	270	145	53.7	23	8.5
"A Look at the Grand Champion"	185	95	51.3	10	5.9
"Nanook"	175	125	50.8	9	5.1
"The Wolf Pit"	299	148	49.4	83	27.7
"The Bombero of Guayaquil"	246	118	47.9	0	0
"Demeter and Persephone"	82	39	47.5	14	17.0
"Boiling the Billy"	195	85	43.5	2	1.0
"Water and the Land"	131	57	43.4	28	21.3
"The House that Stayed"	200	85	42.5	7	3.5
"Blue Willow--Radio Script"	506	180	36	25	4.8
"The Emperor's New Clothes"	169	61	35.5	49	28.9
"Test Dive"	187	65	34.6	27	14.4
"The Trojan Horse"	90	16	17.7	4	4.4

Highest per cent of Self-reliant units. The six stories containing the largest per cent of Self-reliant units for all characters are: "The Sorcerer's Apprentice," 73.6 per cent; "Carca, the Wolverine," 72.6 per cent; "Tembo in the Moss-draped Forest," 72.3 per cent; "David and Goliath," 66.6 per cent; "A Gift from Confucius," 65 per cent; and "Lonnie's Landing," 63.7 per cent. These stories in general contain much more action than description of scenery, and thus a high per cent of Self-reliant units.

It should be noted that the stories with the largest per cent of Self-reliant units are not necessarily those with the smallest per cent of Dependent units.

Highest per cent of Dependent units. The six stories containing the largest percentage of Dependent units are: "The Emperor's New Clothes," 28.9 per cent; "The Wolf Pit," 27.7 per cent; "Water and the Land," 21.3 per cent; Demeter and Persephone, 17 per cent; "Test Dive," 14.4 per cent; and "Tembo in the Moss-draped Forest," 10.6 per cent. This indicates that even in the most dependent stories, the per cent of dependence is less than one-third of the total units of the story.

Stories containing no dependent units. Of interest also is the fact that four stories, "A Gift to Confucius," "Beavers to the Rescue," "The Sorcerer's Apprentice," and "The Bombero of Guayaquil," contained no Dependent units by any of the characters. This means that all the characters in these four stories were presented as completely self-reliant.

IV. SELF-RELIANCE RATIO FOR EACH MAIN CHARACTER

One of the most significant facts revealed in this study is the degree of self-reliance or dependence which is shown by each main character. These are the characters whose behavior in the stories might presumably influence the child's development of attitudes. A Self-reliance ratio for each main character was obtained by the formula:

$$\frac{\text{Self-reliant units}}{\text{Self-reliant} + \text{Dependent units}} = \text{Self-reliance ratio}$$

Self-reliance ratio for boys. The Self-reliance ratio for boys ranges from 1.00, indicating complete self-reliance, for five of the boys, to a low of .48, which indicates dependence, for Louis, the boy who was encouraged to make a test dive and had to be rescued from an octopus. This indicates that the main boy characters are presented as quite self-reliant, since only one of the twenty-one, Louis, is shown as more dependent than self-reliant. Table IV shows Self-reliance ratios for main boy characters.

Self-reliance ratio for girls. As shown in Table V., Self-reliance ratios for girls range from 1.00, showing complete Self-reliance, for two of the girls, to a low of .65 for Betsy, who managed to conquer her fears and rescue a little girl, and was portrayed as quite dependent on her aunt for approval. This table shows that in general the main girl characters are presented as quite self-reliant, and that none are shown to be dependent.

TABLE IV

SELF-RELIANCE RATIO FOR EACH MAIN CHARACTER (BOYS)

Title of story	Name of main character	S-R ratio*
"Beavers to the Rescue"	Johnny	1.00
"The Sorcerer's Apprentice"	Boy	1.00
"The Bombero of Guayaquil"	Luis	1.00
"Rolling the Billy"	Jimmy	1.00
"Lonnie's Landing"	Lonnie	1.00
"David and Goliath"	David	.99
"Lonnie's Landing"	Bruce	.98
"Pancakes--Paris"	Charles	.96
"Whitey and the Hustlers"	Whitey	.95
"The Picture in the Window"	Alan	.95
"Wild-Horse Roundup"	Don	.95
"Rivers for Washington"	David	.91
"The House that Stayed"	Jimmy	.91
"Behind the Five Lines"	Tom	.89
"Rivers for Washington"	Rolfe	.88
"A Look at the Grand Champion"	Sammy	.87
"Two Logs Crossing"	John	.85
"Fu-Lan, Flying Boy of China"	Fu-Lan	.84
"The Lime Kiln"	Eric	.81
"Three Without Fear"	Dave	.77
"Toot Dive"	Louis	.48

*The S-R ratio refers to the number of self-reliant units, divided by the number of self-reliant plus dependent units.

TABLE V

SELF-RELIANCE RATIO FOR EACH MAIN CHARACTER (GIRLS)

Title of story	Name of main character	S-R ratio*
"A Gift from Confucius"	Rachel	1.00
"Boiling the Billy"	Janet	1.00
"Blue Willow"	Janey	.96
"Spilled Berries"	Libby	.88
"The Lime Kiln"	Garnet	.84
"The Wolf Pit"	Betsy	.65

*The S-R ratio refers to the number of Self-reliant units, divided by the number of Self-reliant plus Dependent units.

Self-reliance ratio for men. The three main men characters showed the following Self-reliance ratios: Odysseus, in the story "The Trojan Horse," 1.00 or completely self-reliant; Mr. Shepherd, the farmer who depended on the advice of government experts to conserve his land, obtained a lower ratio of .62; lowest was the Emperor in the story "The Emperor's New Clothes," with a Self-reliance ratio of .35. This indicates that the first two men were portrayed as self-reliant, and the Emperor as dependent.

Self-reliance ratio for women. The three women main characters received the following Self-reliance ration: Demeter, the goddess, .82; Mrs. Shepherd, the wife of the farmer who attempted to conserve his land, .72; and a low for Persephone, who is portrayed as helpless in Pluto's kingdom, of .36. This indicates that the first two are presented as self-reliant, and Persephone is presented as dependent. It is of interest to note that Mrs. Shepherd's score of .72 is slightly higher than her husband's score of .62, a reflection of the fact that in the story she expressed confidence that they would be able to make a go of the farm and he at first expressed only defeat and dependence.

Self-reliance ratio for animals. As shown in Table VI, Self-reliance ratios for animals ranged from 1.00, completely self-reliant, for Tembo's mother, to a low of .50 for Tembo, the baby elephant. This indicates that Tembo is portrayed as exactly at the mid-point between dependence and self-reliance. Animals in general are presented as quite self-reliant, and none is shown to be more dependent.

TABLE VI

SELF-RELIANCE RATIO FOR EACH MAIN CHARACTER (ANIMALS)

Title of story	Name of main character	S-R ratio*
"Tembo in the Moss-draped Forest"	Mother elephant	1.00
"Carca, the Wolverine"	Carca	.93
"Nanook"	Nanook	.88
"Wild-Horse Roundup"	Mare	.79
"Wild-Horse Roundup"	Stallion	.77
"Tembo in the Moss-draped Forest"	Tembo	.50

*The S-R ratio refers to the number of Self-reliant units, divided by the number of Self-reliant plus Dependent units.

In summary, Self-reliance ratios for all main characters show that only one boy, Louis, with a ratio of .48, one man, the Emperor, with a score of .35, and one woman, Persephone, with a score of .38, are shown to be dependent. Thirty-one are shown to be Self-reliant, and one at the mid-point between Self-reliance and Dependence.

The above figures pertain to main characters only. A Self-reliance ratio was computed also for Boys, Girls, Men, Women and Animals as groups, including both major and minor characters. Results were as follows:

Boys	Girls	Men	Women	Animals
.90	.80	.82	.84	.87

This shows that all groups of characters are portrayed as self-reliant. It also indicates that in accordance with our cultural stereotype, girls are presented as slightly less self-reliant than boys, men, women, and animals.

CHAPTER V

SUMMARY AND CONCLUSIONS

I. SUMMARY

The purpose of this study was to investigate by the method of content analysis whether self-reliant or dependent behavior is described in the narrative-descriptive portions of the required reading textbook of the sixth grade in the Omaha public schools. A sub-problem was the devising of a reliable method of quantifying the degree of self-reliance or dependence shown by the various characters and the various stories. The important consideration here was that the method used should be reliable and valid, so that any investigator applying the same method would get approximately the same results.

A search of the literature in psychology, education, communications research and journalism failed to reveal any studies on this specific problem. A number of related studies of various aspects of textbook content was discovered, and a study of the methods and techniques used by these investigations revealed wide variations in procedure. A majority of the studies reported seemed to deal with material by broad subject matter headings rather than the actual content of the message.

The technique used by Dollard and Mowrer in their investigation of the amount of tension or relief present in case history records of relief

cases seemed to be a useful technique in the present study.[1] The unit of analysis they found most successful, the thought unit, was chosen for this study.

The field of content analysis has developed in the last twenty years to a considerable body of knowledge. Most authorities in this field have stressed the importance of validating the categories selected for analysis by the use of a panel of judges and the determination of the percentage of agreement between judges. Accordingly, in the present investigation ten pages selected at random throughout the text were reproduced and given to two persons with a background in the study of psychology comparable to the writer's. These pages were scored independently by the writer and the two judges, and the results compared.

Schutz has reported studies on the problem of how to make certain that the judges were judging by criteria and not by chance, and has introduced a statistic which takes into consideration both the number of judgments made and the probability of chance in the judgments.[2] This method of statistically determining reliability is of most value in studies which require a series of dichotomous decisions by the judges, as the present study does: is it relevant or not; if relevent, is it self-reliant or dependent.

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[1] Dollard and Mowrer, loc. cit.

[2] William C. Schutz, "Reliability, Ambiguity and Content Analysis," Psychological Review, 59, (1952), p. 125.

Two separate empirical per cent agreements were computed for the two levels of decision involved, relevant or not, and self-reliant or dependent. Schutz' Table II showed that the first decision, relevant or not, was acceptable at the .85 agreement level, within .01 level of confidence. Schutz' Table I showed that the second decision of Self-reliant or Dependent was acceptable at the .90 agreement level, within the .01 confidence level.

After the method was established, the writer analyzed all relevant portions of content, a total of 355 pages. Findings were presented in Table II, showing frequencies for each character and each story, under the headings of Self-reliant or Dependent, and further classified under the sub-headings of Boys, Girls, Men, Women, and Animals.

A study of Table II shows that far more Self-reliant units than Dependent units were found for all characters and all stories as a whole. Only three characters, Louis, the Emperor, and Persephone, showed a higher score under Dependent than Self-reliant. Also noteworthy was the fact that a considerably larger number of boys than girls was described in the stories, and boys were portrayed as more self-reliant than girls. Self-reliant items for all stories analyzed showed 1,378 under Boys; 385 under Girls; 1,007 under Men; 238 under Women; and 303 under Animals. Dependent items for all stories showed 145 under Boys; 95 under Girls; 127 under Men; 44 under Women; and 44 under Animals.

Table III shows the total units analyzed in each story and the number and per cent found in the categories of Self-reliant and Dependent. It was found that the stories which contained a great deal of action also

contained the largest numbers of self-reliant units, while those stories which contained much description of scenery and little action of the main characters were low in per cent of Self-reliant units.

Highest in per cent of Self-reliant units were: "The Sorcerer's Apprentices," "Carco, the Wolverine," "Tembo in the Rose-draped Forest," "David and Goliath," "A Gift from Confucius," and "Lonnie's Landing."

Stories containing the highest percentages of Dependent units were: "The Emperor's New Clothes," "The Wolf Pit," and "Water and the Land." Four stories contained no Dependent units at all, a rather obvious distortion of reality.

Table IV shows a Self-reliance ratio for each main boy character, determined by dividing the Self-reliant plus Dependent units into the Self-reliant units. Ratios range from 1.00, completely self-reliant, for five of the boys, to a low of .48, slightly more dependent than self-reliant, in the case of Louie, the boy who was persuaded to make a test dive and had to be rescued from an octopus. He was the only boy portrayed as dependent.

Self-reliance ratios for the six main girl characters ranged from 1.00 for Rachel, to .65 for Betsy, as shown in Table V. All girls were portrayed as self-reliant.

Self-reliance ratios for the three main men characters range from 1.00, completely self-reliant, for Odysseus, to .38 for the Emperor who distrusted his own judgment. The Emperor is the only man presented as dependent.

Self-reliance ratios for the three main women characters range from .82 for Demeter, the goddess, to a low of .38 for her daughter, Persephone, who was helpless in the underworld. Persephone was the only woman character presented as dependent.

Self-reliance ratios for animals range from 1.00 for the elephant mother, to .50 for Tembo, the baby elephant, who is portrayed as mid-way between Self-reliant and Dependent.

Self-reliance ratios for groups of main and minor characters combined are as follows:

Boys	Girls	Men	Women	Animals
.90	.80	.82	.84	.87

Thus it was shown that in general, all groups of characters were portrayed as Self-reliant, and that girls were portrayed as slightly less self-reliant than other groups.

II. CONCLUSIONS

1. As a result of this study it seems reasonable to conclude that a fairly successful method has been found for objectively and quantitatively analyzing the content of a sixth grade reading textbook in regard to the self-reliance or dependence of its characters.

2. A far greater proportion of Self-reliant units than Dependent units was found in the analysis, both for the stories as a whole and for the individual characters.

3. Girls as a group were portrayed as less self-reliant than boys.

4. A disproportionately large number of the stories have boys as main characters.

5. It seems reasonable to conclude, therefore, that the picture we are presenting to our children in the sixth grade reading book of the Omaha public schools is not one of dependence, passivity, and reliance on others, but of self-reliance, ambition, and enterprise.

III. SUGGESTIONS FOR FURTHER RESEARCH

It would be of interest to investigate the directive-prescriptive portions of the child's reading books to determine whether they attempt to develop self-reliance through a critical and problem-solving attitude, or present a pat formula for the solution of problems.

It would be of interest if some method could be devised of actually measuring the effects on the child's behavior of reading about certain story characters.

BIBLIOGRAPHY

BIBLIOGRAPHY

A. BOOKS

Berelson, Bernard. Content Analysis in Communication Research. Glencoe: The Free Press, 1952.

Campbell, William Giles. Form and Style in Thesis Writing. Boston: Houghton-Mifflin Company, 1954.

Cattell, Raymond B. Personality and Motivation Structure and Measurement. Yonkers-On-Hudson, New York, World Book Company, 1957.

Crampton, Gertrude. Tootle. New York: Simon and Schuster, 1946.

Guilford, Joy Paul. Personality. New York: McGraw-Hill Book Company, Inc., 1959.

Piper, Watty. The Little Engine That Could. New York: The Platt & Munk Co., Inc., 1954.

Schramm, Wilbur (ed.). The Process and Effects of Mass Communication. Urbana: The University of Illinois Press, 1954.

Waples, Douglas, Bernard Berelson, and Franklyn R. Bradshaw. What Reading Does to People: A Summary of Evidence on the Social Effects of Reading and a Statement of Problems for Research. Chicago: The University of Chicago Press, 1940.

B. PUBLICATIONS OF THE GOVERNMENT, LEARNED SOCIETIES, AND OTHER ORGANIZATIONS

Edmondson, J. B. et. al. The Textbook in American Education. Thirtieth Yearbook of the National Society for the Study of Education, Part II. Bloomington, Illinois: Public School Publishing Company, 1931.

C. PERIODICALS

Bernreuter, Robert G. "The Measurement of Self-sufficiency," Journal of Abnormal and Social Psychology, 28, (1953), pp. 291-300.

Child, Irwin L., Elmer H. Potter, and Estelle M. Levine, "Children's Textbooks and Personality Development: an Exploration of the Social Psychology of Education," Psychological Monographs, 60, Number 3, (1946), pp. 1-53.

Coleman, Kenneth W. "The Textbook Problem: a Symposium. A Critic," The Saturday Review of Literature, 35, (April 19, 1952), p. 16.

Dollard, John, and O. Hobart Mowrer. "A Method of Measuring Tension in Written Documents," Journal of Abnormal and Social Psychology, 42, (1947), pp. 3-32.

Engle, T. L. "An Analysis of High School Textbooks in Psychology," School Review, 58, (1950), pp. 343-371.

Estenson, E. V. "McGuffey, A Statistical Analysis," Journal of Educational Research, 39, (1946), pp. 445-457.

Fisher, Helen H. "Family Life in Children's Literature," Elementary School Journal, 50, (May, 1950), pp. 516-520.

Gray, William S. "Summary of Reading Investigations, July 1, 1950, to June 30, 1951," Journal of Educational Research, XLV, (February, 1952), pp. 401-431.

Guilford, Joy Paul, Paul R. Christensen, Nicholas A. Bond, Jr., and Marcella A. Sutton, "A Factor Analysis Study of Human Interests," Psychological Monographs, 68, Number 375, (1954), pp. 1-38.

Herma, Hans, Ernst Kris and Joseph Shor, "Freud's Theory of the Dream in American Textbooks," Journal of Abnormal and Social Psychology, 48, (1943), pp. 319-334.

Kamb, Verne P. "The Textbook Problem: A Symposium. A Critic," The Saturday Review of Literature, 35, (April 19, 1952), p. 16.

Lind, Katherine. "The Social Psychology of Children's Reading," American Journal of Sociology, XLI, (January, 1936), pp. 454-469.

Lorr, Maurice, and Eli A. Rubenstein, "Factors Descriptive of Psychiatric Outpatients," Journal of Abnormal and Social Psychology, 51, (1955), pp. 514-522.

Martin, Helen. "Nationalism in Children's Literature," (unpublished Doctoral dissertation, Graduate Library School, University of Chicago, 1934, abstracted in Library Quarterly, VI, (1936), pp. 405-418.

"McGuffey Was Never Like This," Fortune, 60, (December, 1959), p. 109.

Mietz, John A., "A Gift of Old School Textbooks," School and Society, LXXXVII, (September 12, 1959), pp. 340-41.

Ozmon, Howard A., Jr. "Better Dead than Well-Read?" Phi Delta Kappan, XLIII, Number 5, (February, 1962), p. 222-23.

Schutz, William C. "Reliability, Ambiguity, and Content Analysis," Psychological Review, 59, (1952), pp. 119-29.

_____. "On Categorizing Qualitative Data in Content Analysis," Public Opinion Quarterly, 22, (1958-1959), pp. 503-528.

Stagner, Ross. "Validity and Reliability of the Bernreuter Personality Inventory," Journal of Abnormal and Social Psychology, 28, (1934), pp. 413-18.

Stott, Leland H. "An Analytical Study of Self-Reliance," Journal of Psychology, 5, (1938), pp. 107-118.

Sward, Barbara, and Dale B. Harris, "The Reading Ease, Human Interest Value, and Thematic Content of St. Nicholas Magazine: A Study of Children's Literature," Journal of Educational Psychology, 42, (March, 1951), pp. 153-165.

Turpin, Barbara Sargent. "The Textbook Problem: A Symposium. A Parent," The Saturday Review of Literature, 35, (April 19, 1952), p. 19.

Tyson, Robert. "The Content of Mental Hygiene Literature," Journal of Clinical Psychology, 5, (1949), pp. 109-114.

D. ESSAYS AND ARTICLES IN COLLECTIONS

Lasswell, Harold D. "The Structure and Function of Communication in Society," Mass Communications. Urbana: The University of Illinois Press, 1960.

McMurray, Foster, and Lee J. Cronbach. "The Proper Function of Text Materials," Text Materials in Modern Education: A Comprehensive Theory and Platform for Research. Urbana: The University of Illinois Press, 1955.

Spalding, Willard B. "The Selection and Distribution of Printed Materials," Text Materials in Modern Education: A Comprehensive Theory and Platform for Research. Urbana: The University of Illinois Press, 1955.

B. UNPUBLISHED MATERIALS

Barcus, Francis Earle. "Communications Content: Analysis of the Research, 1900-1958. (A Content Analysis of Content Analysis)." Unpublished Doctoral dissertation, the University of Illinois, Urbana, 1959.

Hollins, Walter Havre. "A Comparative Content Analysis of a Sample of McGuffey's and Modern Elementary School Readers." Unpublished Doctoral dissertation, the University of Illinois, Urbana, 1959.

APPENDIX

TABLE VII

AUTHOR, TITLE, TOTAL PAGES AND PLOT SUMMARY OF STORIES

Author and title	Pages	Summary of plot
Harold W. Perry, "A Look at the Grand Champion"	10	Disappointed because his calf did not win a prize, Sammy determines to capture a purebred calf in the calf-roping contest. He practices and wins a calf.
Marjorie Hill Allee, "A Gift from Confucius"	11	Rachel takes money meant for younger children because she wants a boat so badly. Her conscience makes her return the money. Roz finds it and offers it to her in return for a share in the boat.
Elizabeth Enright, "The Lime Kiln"	15	While Garnet and her family are tending the lime kiln, a homeless boy comes by. Her father invites him to live with them and help build a new barn.
A. Murray Dyer, "Blue Willow--Radio Script"	24	Janey's family, migrant workers, move into a small shack. When Mom gets sick, Janey offers her one treasure to the Doctor if he will treat Mom. She also offers it to the overseer who threatens Dad. When the owner of the farm discovers his overseer's extortion, he discharges him and gives a permanent home and job to Janey's family.
Gladys Francis Lewis, "Wild-Horse Roundup"	11	Don sights a beautiful stallion leading a band of wild horses, and reports it to his father in spite of the fact that he would like to see the horses remain free. When the horses are captured it is discovered that the stallion's loyalty to a blind mare led to his capture. Don is given both the horses as his own.
Alice Gall and Fleming Crew, "Nanook"	11	The great bear Nanook is hunted by the fearless hunter Merktoshar. Just as capture seems imminent, Merktoshar drops a tiny good-luck charm and in retrieving it, discovers a crack in the ice beneath him. He and the dogs leap to safety and Nanook also escapes.
George Cory Franklin, "Carca, the Wolverine"	12	Carca saves little Sandy from an attack by the cougar and kills his old enemy in a fierce fight.
J. W. Wilwerding, "Tembo in the Moss-draped Forest"	7	Tembo, a newborn elephant, is saved from an old lion by his mother.

TABLE VII (continued)

Author and title	Pages	Summary of plot
Doris Gates, "Beavers to the Rescue"	10	Johnny gets the idea of importing beavers to dam the streams and conserve water so the cattle will have water all summer. He writes the State Fish and Game department, and beavers are brought in. His plan is successful.
John F. Hayes, "Behind the Fire Lines"	15	Tom, denied the opportunity to fly a plane because of his age, rigs up an intercom system and flies in to rescue one of the older pilots when his plane crashes.
William C. and Helen S. Pryor, "Water and the Land"	9	A farm couple, discouraged by the fact that their topsoil is blowing away, decide to accept the aid of conservation experts and stay on their farm.
Doris Gates, "The House that Stayed"	14	Disappointed because the old house that is their playground is to be demolished, a group of children organize a drive to save the house.
L. Lamprey, "The Picture in the Window"	13	A boy in medieval times befriends an old man and discovers that he is a master craftsman in making stained-glass windows for cathedrals.
Cornelia Meigs, "Rivers for Washington"	11	Two boys, delivering horses to Washington's army during Revolutionary days, are captured by a Frenchman who forces them to paddle his canoe down the Mississippi. He becomes ill, they care for him, and are rewarded with their freedom. They return and give Washington an account of the rivers they have traveled.
Charlie May Simon, "Lonnie's Landing"	15	Two orphaned boys and their grandfather purchase land in what they believe to be a thriving town, but it turns out to be wilderness. They determine to stay and start a town anyway.
Mabel Leigh Hunt, "Spilled Berries"	10	Libby and her Aunt Betsy lose the berries they have picked when they are chased by a ram. Aunt Betsy's husband ridicules them for running. Aunt Betsy manoeuvers him into the pasture, where the ram butts him and the whole family laughs at his dismay.

TABLE VII (continued)

Author and title	Pages	Summary of plot
Walter D. Edmonds, "Two Logs Crossing"	12	In order to pay off his dead father's debts and to support his mother and younger brothers and sisters, John borrows money for a grubstake to spend the winter trapping. He is befriended by an Indian, who warns him not to try to cross streams on a single log. Impatient to get home with his skins, he neglects to cut a second log, and loses all his skins, gun, pack and almost his life. He goes to his benefactor and confesses his mistake, works hard all summer, and in the fall is given another chance at trapping.
Glen Rounds, "Whitey and the Rustlers"	15	Whitey has been given two steers to raise. One day he finds that rustlers have butchered them. He watches for a week, catches the rustlers, calls the sheriff to capture them, and is rewarded with a new saddle from the Cattlemen's Association.
Dorothy Canfield, "The Wolf Pit"	16	Betsy is quite upset because she has failed in an examination at school. Her matter-of-fact aunt refuses to sympathize with her. When a little friend, Molly, falls into a deep pit she conquers her fears and rescues her. She is very happy at having pleased her aunt.
Robert C. Du Soe, "Three Without Fear"	14	When Dave is shipwrecked off a lonely coast of Central America, he is befriended by a boy and his sister who are making a long trip to their grandmother's, and have learned to live off the land. He admires their self-reliance and learns much of survival techniques from them.
Willis Lindquist, "Test Dive"	9	Louis, a deck hand on a sargasso boat, is persuaded by an older man to try out as a diver. An octopus grasps him, but he manages to keep still and calm until the older man distracts the octopus and rescues him.
A Greek Legend, "The Trojan Horse"	6	The crafty Odysseus suggests a scheme to get the Greek warriors inside of Troy by hiding them inside a wooden horse. The scheme succeeds and Troy falls.

TABLE VII (continued)

Author and title	Pages	Summary of plot
A Greek Myth, "Demeter and Persephone"	6	Demeter, the goddess of the earth, is sad because her daughter Persephone has been stolen by Pluto, king of the underworld. She appeals to Zeus, but he rules that Persephone must stay in the underworld four months of the year. Demeter sorrows for her daughter and the world experiences winter.
A Story from the Bible, "David and Goliath"	5	The shepherd boy, David, challenges the Philistine champion, Goliath, and kills him with his sling.
Wanda Gag, "The Sorcerer's Apprentice"	7	A clever boy becomes apprentice to a sorcerer, and in his spare time studies all the magic. When the sorcerer catches him reading a book one day, he turns himself into various animals as the sorcerer tries to destroy him, and he finally gobbles up the sorcerer.
Hans Christian Andersen, "The Emperor's New Clothes"	8	Two rogues pretend that they can weave cloth that is visible only to those who are fit for their office. The emperor and all his officials are afraid to admit that they cannot see it, and only a little child finally has courage to say that the Emperor has nothing on.
Harry Levy, "The Bombero of Guayaquil"	13	Luis, a cacao bean sorter, longs to become a fireman. He follows the firemen to all fires, and helps. At one big fire, he discovers smoldering sparks after the firemen have left. Grateful firemen present a fireman's outfit to him as a reward.
Faith Baldwin, "Boiling the Billy"	12	Twins Janet and Jimmy enjoy going on a trip to Australia with their father who is on business. They make friends and enjoy a picnic, boiling tea Australian style.
Pearl Buck, "Yu Lan, Flying Boy of China"	15	Yu Lan longs to learn to make and fly planes. When Jimmy, an American pilot, runs out of gas and lands near his village, he tells him of his dream. Jimmy agrees to take Yu Lan to a big city where he can learn to be a designer of planes.
Mary Fanny Youngs, "Pancakes--Paris"	16	In Paris just after World War II, Charles and his family seldom have enough to eat. Charles takes care of his little sister while his mother works. One day he gives directions to two American soldiers, who give him a box of pancake mix. Unable to translate the directions, he goes to the American Embassy for help. Coming out, he is seen by the two soldiers, who bring some shortening, cocoa, and other scarce commodities, and the pancakes are enjoyed by all.