A PROPOSED METHOD FOR INCREASING READING FLEXIBILITY IN COLLEGE STUDENTS

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CHAPTER I

PRESENTATION OF THE PROBLEM

Introduction

The value of effective reading has long been recognized by American educators. In explanation of the necessary process for becoming an effective reader, much emphasis is placed upon comprehension, speed, vocabulary and various other skills. Often, however, little or no attention is given to the value of reading flexibility.

> Efficiency in reading embraces two important elements--understanding and speed. The person who reads too rapidly to comprehend what he has read is at a disadvantage; so also is the person who understands what he has read, but can do so only by reading at a very slow rate. The reader who can vary his speed in accordance with the difficulty of the material, and is able at the same time to recall and understand what he has read, is a flexible reader--an efficient reader (Sheldon and Braam, 1959).

Flexibility is a prerequisite to reading efficiency. Although this is not widely stressed within the classrooms, the failure of teachers to provide direction in the use of reading flexibility probably stems not from a disagreement that flexibility is important, but from a limited knowledge of what it is and an equally limited amount of materials available for teaching reading flexibility.

Provisions should be made to acquaint reading teachers with the meaning of flexibility and what is involved in becoming a flexible reader. However, if a flexible approach to reading is to become meaningful and useful, the teacher must be provided with materials, and suggestions for constructing materials designed to develop this highly important skill.

Statement of the Problem

The purpose of this study is: 1) to establish criteria for the development of materials designed to improve the reading flexibility of college students; 2) to develop materials on the basis of this criteria for use in college reading improvement classes.

Need for the Problem

Recent emphasis on speed reading has caused students to request a type of reading instruction that will result in a fantastic increase of speed. McKee (1948) has noted that the trend in reading instruction has been toward more rapid reading. The improvement of speed has constituted numerous classroom exercises and many reading clinics have regarded rate increase as their sole objective. This current stress on speed, McKee believes, is misplaced. He states:

> Speed in itself has no value. It has no worth when divorced from understanding. Speed should be thought of and taught as "speed of understanding adequately." Every pupil should learn to adjust his speed of reading in a given situation to the purpose for which he is reading and to the difficulty of the reading matter which he has at hand.

Students themselves often have no conception of flexibility in relation to reading. Many have never been exposed to the idea of varying their reading rate. A number of students attending reading improvement classes at Oklahoma State University have demonstrated a definite lack of flexibility in their reading. These students often enroll in the course with the intention of greatly accelerating their reading rate. Many of them have been affected by the current trend toward speed and almost demand that they become fast readers. Some are even willing to disregard the development of other skills, in the hope that speed alone

will correct their problems. Triggs (1943) writes:

> Many students, perhaps most of them, read everything at the same rate, partly because they do not know that they should do otherwise and partly because they have not learned to evaluate the importance of their material and distribute their time and emphasis accordingly.

McDonald (1958) states that students must have evidence of their deficiencies if they are to become competent readers. He recommends a diagnostic instrument with selections that differ in "difficulty of style, in difficulty of content, and in purpose set for reading." A teacher of developmental reading, according to McDonald, should have available "quick and reliable means of finding readers who are inflexible and who lack versatility." An effort has since been made by McDonald and others, who have published tests of reading versatility. These are available on two levels, Basic, for use in elementary grades, and Advanced for grades 11 through college. (1962).

Carrillo and Sheldon (1952) regard the lack of instruments appropriate for checking the development of flexibility as a major problem in this area. Absence of these instruments have resulted in "a tendency to ignore this phase of reading instruction."

It is obvious that the development of efficient readers necessitates a de-emphasis on speed and increased attention toward flexibility of reading. Carrillo and Sheldon (1952) recognize reading flexibility as one of the most important and neglected reading skills. Although flexibility receives almost universal recognition, relatively little in the way of materials and tests is available to the reading teacher.

The need for the problem, then, is based upon the importance attributed to reading flexibility by specialists in the field of reading plus the dearth of material available to aid in the development of flexibility.

Definition of Flexibility

Flexibility, as defined by Sheldon and Braam (1959), is that skill in reading which allows an individual to vary his reading rate according to 1) his purpose for reading, 2) the difficulty of the selection, and 3) his familiarity with the material.

The use of the word flexibility throughout this work will have reference to this definition.

CHAPTER II

REVIEW OF THE LITERATURE

Flexibility in reading is a skill that actually is employed very little by the average reader. This is due partially to the fact that he is oblivious to the possibility of varying his reading rate and also that he has had little or no training directed toward the development of this important skill.

Flexibility has never found its rightful place for a variety of reasons. The most significant of these is connected probably with the trend toward speed reading. Bond and Tinker (1957) have observed that children are admonished constantly to read faster and that numerous classroom activities have been directed solely toward the attainment of rapid reading. They further state that "too frequently this emphasis has led to rapid reading with little understanding and also to a neglect of other more important aspects of the instructional program."

Much of the popular literature on the topic of rapid reading apparently has caused misconceptions concerning speed. College students enrolling in a reading improvement class expect great gains in rate. This is their major area of concern. The most frequent reason given for this desired increase is that they require more speed in order to absorb the wealth of reading matter that is assigned to them in technical subjects. The students fail to realize that a vast increase in speed will not equip them to read technical material at a similar rate. Spache (1958) has

noted that "there is no such thing as a general rate of reading that operates in all situations. Improving speed in one reading task does not necessarily generalize to all other reading situations." Bond and Tinker (1957) concur by stating:

> In some discussions, it is strangely assumed that speed of reading is a general ability that somehow transfers readily to the reading of a wide variety of materials. There is no such general speed of reading ability. Even for the proficient reader, rate of reading is fairly specific to a particular reading situation.
>
> It should be kept in mind that where average rates are given, they are for reading a specific kind of material for a set purpose. The published averages are usually for relatively easy material in some reading test. They are not to be interpreted as norms for all kinds of material read for different purposes.

Speed not only is unnecessary for all reading situations, it is unwarranted without attention to purpose, difficulty of the material, and the degree of familiarity the reader has with the selection. "A rate of reading which is ideal for some purposes may be inappropriate for others. Some types of reading matter should be read quickly while others need to be read deliberately and carefully." (Harris, 1949)

Witty, Stolarz, and Cooper (1959) report the results of a study in which 24 men were selected from a Northwestern University Traffic Institution. Their test scores on the Iowa Silent Reading Test were below the fifteenth percentile for college freshmen. More rapid reading was only one of many skills stressed in this program, even though the men stated that the ability to read more rapidly was their greatest need. Included in the skills taught were:

> 1) The development of a flexible approach to reading with emphasis on the use of varied reading techniques for different purposes. 2) The ability to adjust reading rate to purposes for reading and to the difficulty of the material. 3) The ability to read various kinds of materials with appropriate comprehension.

Training consisted of drill by various methods, including the use of

pacing machines, as well as assignments in How To Become A Better Reader by Paul Witty. The results revealed that the greatest gain was in reading rate with a small gain in comprehension. It was observed that though the greatest gain was in rate, speed was not the primary goal of the program. It was further stated that "since the men acquired flexibility in reading rate, they were able to read many types of materials much more rapidly after the training."

Despite this gravitation to speed reading, an examination of the literature fails to reveal that authorities believe fast reading to be synonomous with effective reading. Sheldon and Braam (1959) have defined good readers as flexible readers.

> They have at their command a wide range of reading rate and are able to adapt their rate to the purpose for reading, the level of difficulty of the material, and the degree of familiarity of the material being read. Their reading rate may vary even within a given chapter or article from extremely rapid skimming to very slow studying. This skill results in an increase in reading efficiency since the good reader does not waste time plodding through unimportant /for him/ material at the same rate at which he approaches vitally important material.

The degree of flexibility that an individual possesses signifies his reading efficiency more than any other skill. The following table is illustrative of the relationship of reading rate to flexibility, according to Sheldon and Braam (1959).

Range of Reading Rate	Nature of Flexibility
25-50	very poor
50-100	poor to fair
100-125	fair to good
125-150	good
150-200	very good
200-300	excellent
300----	outstanding

Carter, McGinnis, and Smith (1957) have cited the following as being included in the characteristics of a good reader.

> 1) The good reader reads for a purpose, decides what he wants and then goes after it.

2) The good reader adjusts his rate of reading to the purpose and difficulty of the material to be read. . . . He has many rates of reading.
3) The good reader reads a variety of material and acquires an extensive background. . . . He realizes that reading is both a contributing and resulting factor in the learning process.

The poor reader, then, has those characteristics which are converse to those of the good reader. As Carter, McGinnis, and Smith put it:

1) The poor reader merely reads without knowing exactly what he is looking for. He does not have a definite purpose. . . reads aimlessly and frequently misses the main idea because of his attention to details.
2) The poor reader does not adjust his rate of reading to the purpose and difficulty of the material to be read. All materials are read at the same rate. He does not know when to read rapidly and when to read slowly. The poor reader is a slow reader and lacks flexibility in adjusting rate of reading to varying purposes and difficulty of material.
3) The poor reader generally reads the same kind of material. . . . He has little or no background with which to interpret words and ideas. He has little or no basis for accepting or rejecting them.

Pauk (1958) voiced his opinion of speed reading, per se, at the 1958 International Reading Conference. He stated that:

First we must stop playing the role of the "medicine man" who performs miracles by increasing reading rates. . . . Rate is an ingredient of a reading program, but it must be placed in proper perspective. The purpose of the program is not to sweep away the careful reading habits which are useful in mastering an abstruse subject; rather, rate is to provide flexibility of speed by extending the range of reading speeds.

J. Harlan Shores (1961) conducted a study to determine if fast readers are the best readers. The study attempted to answer the following questions:

1) Are good readers those who read rapidly during an initial reading?
2) Do good readers read rapidly when dealing with the study type comprehension questions and when rereading to answer the questions?
3) Are the good readers those who take less time in total to read, reread, and answer questions?
4) Are fast readers good readers on each of these measures regardless of the difficulty of the material and the purpose for reading?

Subjects consisted of 64 sixth graders who were above average intelligence and reading achievement and an adult group of 51 from undergraduate and graduate university level courses dealing with the teaching of reading. Standardized tests of rate and of comprehension were administered

to the group, plus some unpublished tests by Shores, "Reading For Problem Solving in Science" and "Directed Reading of Science Materials Tests." The group was tested on a science passage in which one group read for the main idea and another for sequence of events. The conclusions reached were that "fast readers are good readers when reading some kinds of materials for some purposes." When reading other kinds of materials for other purposes, there is no relationship between speed and comprehension. No relationship was found for either sixth graders or well-educated adults when reading scientific material for the purpose of problem solving, finding the main idea, or for keeping a series of ideas in sequential order.

According to Bond and Tinker (1957):

> Certain writers have seemed to come close to believing that speed of reading is a valid measure of reading performance in itself, even when it is divorced from comprehension . . . a measure of the rate with which words are recognized as words with no reference to apprehending their meanings and relationships, yields a score of little or no significance. . . . "Reading" without comprehension is not reading. The only practical and adequate definition of rate of reading is to redefine it as rate of comprehension of printed and written material. . . . To measure speed of reading, therefore, one must measure the rate with which material is comprehended.

It is important for the teacher to realize that neither rapid nor slow reading in itself is the cause of insufficient comprehension. Similarly, increasing an individual's reading rate does not insure greater comprehension. "The best way to increase the speed with which the slow reader reads is to equip him with the power to understand adequately and quickly whatever he attempts to read." (McKee, 1948).

Carter (1957) states that the primary concern in reading is securing meaning. If this is possible at a rapid speed, valuable time is saved. However, if it is impossible to achieve meaning at a rapid rate, it is far better to read slowly. "The rapid reader is generally the good

reader; however the good reader does not always read rapidly." Carter sets forth the following characteristics of the mature and efficient reader which makes it possible for him to read some materials rapidly.

1) The good reader can vary his rate up or down according to the nature of his material while the inefficient reader must limit his comprehension because of his slow rate.
2) Increased rate makes possible the flexibility needed for ease, comfort, and efficiency of reading.
3) Increased rate adds to the economy of time and effort.

In conducting an experiment to discover the significant characteristics of college students with varying flexibility in rate, Laycock (1955) found the most significant difference between the more and less flexible readers was rate and fixation span. Some flexibility occurred when subjects were asked to read simple passages, but reading longer and more difficult passages increased the divergence in flexibility.

Authorities in the field apparently agree that flexibility of reading rate is vastly more important than a highly accelerated speed applied equally to all reading material. McDonald (1958) has listed flexibility as one of the most important characteristics of the good reader. Data was gathered by Colvin (1962) from 42 Pennsylvania colleges and universities to determine, by the questionnaire method, what is believed to be essential for an ideal college reading program. Results indicate that, probably, the element most important is "the development of skill in employing different speeds for different purposes."

Flexibility has been assigned a spot of much significance by leading reading authorities and can be assumed to warrant the importance placed upon it by these specialists. In reviewing the literature, it becomes apparent that little actual research has been attempted relating to flexibility. However, an examination of the discussions by those who have recognized clearly the importance of flexibility for many years

leaves no doubt in the mind of the reader that this emphasis is justified. The literature gives ample evidence that good reading and flexible reading are synonomous.

Sheldon and Braam (1958a) define flexibility as "the ability to shift from a high to a low rate of speed in reading, according to the purpose for which materials of various types are read." They also state:

> The flexible reader adapts his reading to the purpose with which he approaches the printed page, to the difficulty level of the material, and the degree of his own familiarity with the subject discussed. The goal of a flexible reader is to obtain the desired degree of understanding with the greatest efficiency.

Spache and Berg (1958) regard using different rates under different circumstances as a primary characteristic of the flexible reader.

> Because of his attention to purpose, the efficient reader makes many adjustments of rate and comprehension. Thus he achieves greater concentration and retention, and conserves time and energy. His reading is better organized because of the many techniques he uses to accomplish his various purposes. And finally, because of planning purpose he is able to apply information directly to his reading aims.

Bond and Tinker (1957) believe that:

> . . . flexibility in adjusting rate of reading to the materials read and to the purpose for which the reading is done is the hallmark of a proficient reader. As the occasion demands, he can tear along at a very rapid rate, or he can employ a moderate rate if that is appropriate, or he can read very slowly in addition to rereading where a highly analytical procedure is in order. Too many students at all grade levels, even in high school and college, tend to read everything at approximately the same rate irrespective of the kind of material or the purpose for reading it. Even if some slight adjustment is made, frequently it is not of an appropriate sort.

Strang and Bracken (1957) further explain the method of employing flexibility:

> After a reader has located the material he wants to get information on a topic, to solve a problem, or to obtain pleasure, he should consider the proper approach to reading it. The approach will vary with the kind of reading material and the purpose for which he is reading it.

It must not be assumed that reading flexibility is an aspect of the reading process that has been overlooked and is emerging suddenly with

the promise of a swift correction of reading difficulties. Sheldon and Braam (1958b) advise anyone who is dissatisfied with his reading efficiency not to seek an easy means of improvement, as none exists. Only through constant practice will an individual become a really skillful reader.

Bond and Tinker (1957) submit that:

> The development of flexibility in speed of reading tends to be slow and difficult. . . . Training to develop flexibility must be a continuing part of the program of reading instruction throughout the school years. For the majority of pupils flexibility in adjusting rate of reading is acquired slowly. But the pupil who achieves good flexibility possesses a fine asset.

Providing the reader with instruction and guidance in adjusting his reading rate is obviously desirable. However, much is required in enlarging the availability of materials appropriate to the task. Letson (1960) declares the need for standardized assessment of this skill. Lacking this, he suggests that the classroom teacher prepare tests which will "serve to indicate instructional needs and to measure growth in mastery of this skill."

Carrillo and Sheldon (1952) express their concern for adequate measures of testing reading flexibility. They have presented the following suggestions to aid in the design of a reliable instrument.

1) A test which is much longer than most speed-of-reading tests. This is essential for reliability, in view of the variability that is necessary and also important in providing the normal reading situation.

2) The exercises should be straight reading, representative of normal reading matter, and at least 400 words long, in order for individual differences to show up in timing.

3) Purposes should be established prior to beginning each selection. This should probably remain as constant as possible at all levels of

difficulty, although this is not entirely possible, considering the reader's individual purpose(s), which cannot be controlled.

4) The difficulty level of each selection should be established.

5) Each selection should be timed separately.

6) Scores would indicate: a) the frustration level of the student in each subject area. b) rate of comprehension at each difficulty level completed accurately. c) an index of the flexibility of the reader. d) if comprehension purpose remains the same throughout, a score of comprehension level for that purpose, as compared to norms. e) an analysis of the type of comprehension questions most often and least often answered correctly.

The views of authorities and reading specialists reveal widespread approval of developing reading flexibility. Although greatly to be desired, this skill apparently receives a minimum of attention, due largely to the absence of materials available to assess and increase flexibility. A limited number of writers have done extensive work in this area. These few, however, provide knowledge and suggestions that should equip the interested and conscientious teacher of reading with an adequate background for initiating a program designed to develop reading flexibility.

CHAPTER III

DEVELOPMENT OF THE CRITERIA

Selection of the Material

A review of the literature related to flexibility revealed a need for more training material as well as research, in this area. Interest in pursuing this further resulted in the decision to construct exercises which would propose to increase flexibility in college students. The first portion of this chapter will be concerned with developing the criteria for the selection of material appropriate for the stated task.

Content of the Material

Prior to selection of the articles used to develop and increase flexibility, it was necessary to determine the most critical needs of the average student electing a college reading improvement course. It has been observed that the majority of students who enroll in such a program have a definite objective for doing so. This primary objective is to retain more from the required reading of their course work and to do this at an optimum rate.

Pauk (1958) reports that an examination of students' comments reveals that their problems revolve around their inability to make application of the basic reading skills. He states further that:

There is no question about the good work and effort put forth by the many college reading programs. . . . Yet how often have we taught the

basic skills through exercises which are trite, unrealistic, stereotyped, and cut and dried. We need to present our teachings in the context of the vigorous stream of reality. We must teach basic reading skills in terms of the students' subjects.

Triggs (1943) believes that approximately 20 per cent of the young people who enroll in our colleges and universities are less efficient in their reading than the average eighth grader. It is obvious them, according to Triggs, that these students are incapable of adjusting to the reading load of the standard college curriculum. One student takes three hours for an assignment, while a skilled reader may have completed it in one hour. Some students, too, are completely at a loss to distinguish between main ideas and lesser details. Triggs continues:

> Nor are the institutions of higher education by any means guiltless in the matter themselves. In college, the student is quite suddenly confronted with considerably more extensive reading requirements and with new vocabularies and new concepts. No matter how good his previous training in reading has been, he ought not to be left to sink or swim as he has been in the past. Development in reading should be a part of the instructional program in every content field. . . . The main objective of any college remedial program should be to give the student proficiency in the reading skills he needs to do his college work satisfactorily.

Austin, Bush, and Huebner (1961) state that specific instruction in how to read and study in the content areas should be an important element of a developmental program. They suggest that more schools today are attempting to provide reading matter and instruction for developing the special skills required in each content field by utilizing the materials of that subject. It is further noted that:

> Reading specialists often cite the need for close co-operation among subject matter teachers in the junior and senior high schools for the improvement of reading skills. Each teacher . . . should be a teacher of reading when the occasion demands that his students develop specific skills related to his field of study: the vocabulary peculiar to that subject . . . reading of maps, graphs, charts, diagrams, and tables. . . . Guidance in the type of reading suitable in each field can best be given by the content area teacher. . . .

However, Austin, et al., (1961) have recognized that pupils cannot acquire

all necessary reading skills for high school and college in elementary school. College instructors do not attempt, generally, to provide guidance in the proper method to use in reading and studying their particular subject. Therefore, it is hoped that those students who have failed to receive an adequate understanding of study skills will be aided in using exercises developed from materials in the content fields.

Carrillo and Sheldon (1952) suggest that "several selections in various fields should be given at each difficulty level, since the student should not be expected to perform at the same level in all areas." The opinion that students should be provided with the opportunity for employing flexibility in different types of reading matter influenced the selection of material from four different areas.

It was believed that selecting materials from the academic areas of Natural Science, Social Science, and Humanities would benefit the average student. All college enrollees are required several general education courses in the fields of Natural Science, Social Science, and Humanities, regardless of their major field of study. A General topic, which included Sports and World Events, was added because of the high degree of interest this would have for most students. The content of the materials was selected from four main areas: 1) Natural Science 2) Social Science 3) Humanities and 4) General. Four articles were included in each of these areas.

Determination of Length

Letson (1960) suggested that teacher prepared tests of flexibility should be at least 500 words in length and preferably 1000 words. In presenting criteria for a test of reading flexibility, Carrillo and

Sheldon (1952) have called for a test much longer than most speed-of-reading tests, in order to provide reliability and a normal reading situation. It was assumed that these considerations would be appropriate in constructing flexibility exercises.

Experience in using materials with students in a college reading improvement course, where selections of 1500 words and above appeared to be most successful, was a significant factor in the decision to select articles approximately 2000 words in length.

Assessing Level of Difficulty

The necessity for determining the difficulty of reading matter is brought out by Bond and Tinker (1957), who state that "any pupil who attempts to read all materials at the same rate, irrespective of their nature or difficulty, will be in trouble." Traxler (1957), as quoted by McDonald (1958), also points out that "research indicates that mature readers learn to adjust their rate according to the difficulty of the material . . ."

A study reported by Letson (1959) attempted to discover whether material or purpose exerts a greater influence on rate of reading. The population consisted of 601 college freshmen. The first testing involved the reading of two selections, one of easy material and one of difficult material. The purpose of both was to read as rapidly as possible and still retain the content sufficiently to permit recall. The second testing involved the reading of two selections of equal difficulty level, but which were to be read for two different purposes: 1) as rapidly as possible for the story; 2) for complete mastery of ideas and details. Each subject read the four selections for five minutes and then their comprehension was evaluated. The results show that the rate was influ-

enced more by the difficulty of the material than by the purpose for reading. Letson concludes that "slowing down to read more difficult material is important to good comprehension, but it is not necessary to slow down for mastery of the material, provided the difficulty level of the material remains constant . . ."

Sheldon and Braam (1959) listed the assessment of the difficulty level as one of the problems involved in developing flexible reading. The difficulty level of the material may be determined by skimming the material and noting the following characteristics.

1) The topic discussed.
2) The length of the sentences.
3) The number of many-syllabled words.
4) The number of unfamiliar words.

The use of readability formulas is also recognized as a method for determining the difficulty level of a selection. This process was chosen for assessing the readability level of the articles to be used in developing exercises for increasing flexibility. It was decided that the difficulty level should be predetermined for utilization in college reading improvement to enable the instructor to adjust the materials to the individual differences of his students. The Dale-Chall Readability Formula (1948) was used to assess the level of difficulty of each selection. Materials were included from grade levels 9 through 15. The majority of the selections were taken from material comparable to grades 9 through 12, as these levels best serve the average student of reading improvement.

It must not be assumed that attaching a readability level according to formula eliminates student consideration of difficulty. The specific difficulty for a given selection can vary considerably as a result of the reader's background. Students are expected to evaluate all materials according to the difficulty for them.

Organization of the Flexibility Exercises

Following selection of the material, further decisions were necessary in order to establish criteria for the exercises themselves. The second portion of this chapter will be devoted to developing the criteria for each step of the developmental exercises.

Background of Experience

It has been stated that the reader's previous experience with a topic greatly influences the reading process. The prior knowledge a person has acquired concerning a subject is one of the factors affecting flexible reading. Betts (1946) has cited familiarity of the content as an influencing factor in rate of reading. Smith and Dechant (1961) have designated the reader's background for understanding the material as one of the factors governing his rate. Strang, McCullough, and Traxler (1955) believe that "reading depends on experience. Words become meaningful to us through our experience." Pauk (1958) has expressed the view that the type of reading utilized in a particular selection depends upon the reader's background of experience. Pauk calls the process of pre-evaluation "the use of anticipation. When reading familiar topics, a form of selective skimming of lines and phrases is sufficient for the mind to readily fill in the gaps with knowledge previously gained and retained."

Efficient reading, then, necessitates the act of pre-determining the degree of familiarity the individual has regarding the subject at hand. For this reason, the first step to be included in the exercises aimed at establishing the habit of discovering the degree of familiarity the reader has with the material in order to decide what approach should

be used in reading that particular article.

Preview of the Selection

The value of purpose setting has long had an important place in reading instruction. Early in first grade, children are admonished to read for a purpose. It is intended that they realize early in their school careers that they profit by having a reason for reading. Edwards (1962) believes that "when beginning readers are delayed in learning that we read 'for meaning' the result could be ineffective life-time reading habits."

Although purpose setting is stressed early in elementary school, many students reach the point of higher education without an adequate realization of the value of reading for a specific reason. Sister M. Herculane (1961) reported the results of a study which tested the extent to which eighth graders vary their rate and technique according to the purpose. The 102 pupils who participated had I. Q.'s and reading abilities of average and above. The procedure involved testing with three instruments designed to encourage students to employ three rates and techniques; skimming, rapid, and thorough. That subjects were unable to change their rate and technique was evident. They indicated some knowledge of flexibility, but were inconsistent in their responses and in practice. Selection of the proper technique was the aspect of flexibility which was best understood by those participating in testing. Sister M. Herculane concludes that "Apparently, success in reading, quantitatively and qualitatively is impossible without the consistent habit of adjusting reading rate and technique to the various purposes of reading."

Shores (1960) conducted a study in which he attempted to find how

sixth grade children read science materials when they are reading for two distinct purposes: 1) discovering the main idea, and 2) keeping a series of ideas in mind in sequence. Questions were posed as to the method used in reading for these two purposes and rate measures used to determine whether or not they were read with equal speed. Subjects used were slightly superior to the national average in mental age and general reading ability. Results indicate that the purpose for reading does influence the speed with which the material is read. It was suggested as a result of the findings that the "reader's purpose is a more potent determinant of reading speed and comprehension with expository materials than is the content field from which the material is drawn."

In another previously mentioned study conducted to determine if fast readers are the best readers, Shores (1961) states that:

> When either adults or sixth grade children read the same material for two different purposes and when the purpose for reading is set for the reader in advance of the reading, the purpose for reading influences the speed with which the reading is done.

Bond and Tinker (1957) cite the adjustment of rate to the purpose for which reading is done as perhaps the most important of reading skills.

> If the pupil needs to get only a general impression or idea, or if he merely needs to look up a given item on a page, the speed should be relatively high. But if he needs to grasp the concepts in a given selection thoroughly, his pace will be relatively slow. This emphasizes the importance of purposeful reading. Prior to reading any unit, the child should be clear as to the purposes for which he is going to read.

McClusky (1934) conducted an experiment with 118 college sophomores to ascertain the influence of preliminary skimming on reading. Two equated groups were given a selection to read after training only one of the groups in the process of skimming headings and summaries. Results show that the trained group read 24 per cent faster and as accurately as the group receiving no previous instruction in previewing. According

to Robinson (1961) " . . . a quick overview orients the reader and allows him to comprehend, at least partially, what is to come. With this preview, he can then comprehend the selection more rapidly."

Pre-reading, according to Judson and Baldridge (1954) gives higher and easier comprehension, because the reader is provided with a framework in which to fit details during later, more thorough reading. Maintaining the most efficient reading speed [the highest speed at which the desired degree of comprehension can be obtained] is also made possible by pre-reading.

Previewing the selection was included as Step II of the exercises to encourage purpose setting before reading. It is recognized, however, that the most valuable purposes are those set by the individual himself. "To be a really good reader . . . the pupil must have learned to set his own purpose. This requires discrimination and flexibility." (Bond and Tinker, 1957). For this reason, the exercises are graduated in degree of detail, and students are instructed to discover their own purposes for reading the material.

While previewing the selection, the student is also expected to be able to assume some idea of the difficulty of the material. Before proceeding, he evaluates the selection according to the degree of difficulty for him.

Questions to Answer

Step III of the exercises are a continuation of purpose setting. The student is asked to formulate questions he would expect to answer by reading the selection. These questions should have come to mind as the reader progressed through Steps I and II. It is assumed that stating

definite questions to be answered allows the reader to provide himself with a basis for selecting and organizing the ideas presented in the material.

Research indicates that when reading is guided by questions, both immediate and delayed recall is higher than when careful reading and re-reading without previous questioning are used. A study by Holmes (1931) involved 170 college students, who were divided into two equated groups and instructed to read selections related to science and the history of English literature. Twenty questions were given one group before reading and the other group received no questions. The group questioned before reading had better recall on those questions as well as new questions. On a test given two weeks later, this group was superior also.

Robinson (1961) has stressed the importance of questions before reading. He suggests turning all headings and subheadings into questions. This arouses more curiosity in the reader and increases his comprehension. A study by Robinson and Hall (1941) attempted to discover the effect paragraph headings have on reading rate and comprehension accuracy of college students. Some were asked to read material with headings and others read material in which the headings had been omitted. There was only a slight difference between the groups that used headings and those that did not. Robinson and Hall conclude that college students take very little advantage of one of the most useful devices in the study of textbook material.

A group of 1456 high school students participated in a study by Washburne (1929) conducted to determine at which point in reading questions are most valuable to the reader: 1) before 2) during or 3) after. The

two most effective methods used with the group were: 1) placing all the questions at the beginning of the article and 2) placing a question at the beginning of the section in which it was answered.

The exercises for increasing flexibility instruct the reader to question himself about the selection before he begins to read. This provides him with the opportunity of orienting himself to the subject.

Reading the Selection

Step IV is a synthesis of all the preceding steps. The reader has evaluated the material and has established his purposes for reading. This should provide him with the background necessary for retention. If a reader just wanders through an article with no purpose in mind, he does not bring strong attention to bear on the text. On the other hand, if there is a definite purpose, a reader can better focus attention on whatever will fulfill this purpose (Smith, 1958).

Robinson (1961) states that reading is done to answer questions formed previously by the reader, and further describes reading as "an active search for the answer."

Two additional steps were included in the exercises: V. Review, and VI. Evaluation of Comprehension. It would have been impractical to construct the flexibility exercises without providing practice in recall. However, no attention will be given to these steps here. A parallel study will discuss these same exercises as training material for increasing comprehension.

CHAPTER IV

APPLICATION OF THE CRITERIA

Selection of the Material

Recognition of the importance of flexibility and need for training materials led to the construction of exercises designed to increase reading flexibility in college students.

This chapter will be devoted to an explanation of the steps taken to construct these materials. The following discussion will describe the selection of articles used in the development of these exercises.

Content of the Material

The first step, selection of subject matter, was determined by the criteria established in the previous chapter. The literature reveals that the greatest need is for materials which provide the student with the opportunity for applying those skills most readily transferable to his college course work. For this reason the content fields of Natural Science, Social Science, and Humanities were selected for their immediate value to the student and an additional area was included under the heading of General, which consists of articles relating to Sports and World Events. This topic was added in an effort to provide some materials which are assumed to have a high degree of interest for the students. A complete list of the subjects and topics in each area may be found in Appendix A. Appendix B gives the source of each article selected.

Determination of Length

An approximate length of 2000 words per article was considered most appropriate, according to the criteria. This size unit enables the student to practice on material similar to that which he is assigned in college classes. In addition, it was necessary to consider the time allowed for the reading improvement classes in which the articles would be used. As these are 50 minutes per class period, it would have been impractical to use materials which were much longer or shorter. Appendix A shows the length of each article. The numbers have been rounded off to the nearest ten to facilitate conversion to reading rate.

Assessing Level of Difficulty

Prior to final acceptance of any article, the grade level was determined by using the Dale-Chall Readability Formula (1948). Articles were included from grades 9 through 15. The majority were selected from grades 9 through 12, as it was at these levels that most of the students who enroll in the Reading Improvement Course at Oklahoma State University are able to work adequately. Appendix A gives the readability level of each article selected.

Organization of Flexibility Exercises

Following the selection of appropriate material, attention was given to building exercises which would provide the student with practice in the use of those skills determined necessary for increasing flexibility.

The final portion of this chapter will list each step of the exercises and explain its part in the development of flexibility.

Background of Experience

Betts (1957), Smith, and Dechant (1961), and others state that one of the steps to becoming a flexible reader is evaluating the familiarity of the selection. This permits the reader to decide on the best approach to the material. If he discovers that he has extensive knowledge about the subject, his technique for reading is decidedly different than if he recognizes little or nothing about the subject.

Therefore, the first step of each exercise guides the reader in assessing his own background of experience. He is given ten questions which test his general knowledge of the subject plus a section of technical vocabulary. This enables him to evaluate his familiarity in both areas. According to the number missed, the student finds himself: 1) unfamiliar, 2) familiar, or 3) adept with the subject under discussion. For an example of this portion of the exercise, refer to Flexibility Exercise, Part I, page 37-38.

Preview of the Selection

The next step in employing reading flexibility requires the reader to assess the difficulty level for himself. This step in the exercise guides the reader in determining the difficulty of the selection and beginning to set purposes for reading. The reader is instructed to survey the reading selection, noting such things as the title, the introductory paragraph, key words, and the author's purpose in writing the material. At the termination of this preview, the student judges the article to be: 1) most difficult, 2) difficult, 3) average, 4) fairly easy, or 5) simple. A sample of a Flexibility Exercise, Part II, is shown on page 38.

Questions to Answer

Part III of the Flexibility Exercise is a continuation of setting purposes, a most valuable part of the entire process. With the evaluating and previewing he has done thus far, the reader should have various ideas about the selection and the next step should help him state his reason for reading. At this point the student is asked to pose several questions that he would expect to be able to answer after reading. This activity should further his ability to organize his thoughts and realize exactly why he is going to read. It is contended that without realizing a purpose for reading, the reader actually has very little reason for continuing with his reading. With some materials, the reader's sole purpose may be to enjoy the selection, and although he reads for pleasure alone, the purpose is still present: that of deriving personal satisfaction from his reading. With the study type materials, his purposes will be quite different. He may need to understand the main thought or increase his knowledge or he may have purposes known only to him. The desired outcome of actual practice in setting purposes will lead the reader to an almost unconscious adoption of this process. At this point in the exercise, the reader is asked to check one or more from a list of the following purposes for reading.

1) Understanding the main thought.
2) Locating specific facts and details.
3) Appreciating the author's style of writing.
4) Increasing knowledge.
5) Determining the logic and consistency of the author.
6) Forming an opinion.
7) Evaluating and/or criticizing the selection.
8) Identifying the author's purpose.
9) Deriving personal enjoyment.
10) Others. (Explain).

A sample of this step is shown in Flexibility Exercise, Part III, page 39.

The purposes for reading are listed on page 28, as they were considered too lengthy to include in each worksheet.

Reading the Selection

The student is ready to read when he reaches Part IV of the Flexibility Exercise. Constant evaluation has been emphasized throughout each step as it is in this way that the reader is equipped to read the material at a rate adjusted to his purposes. One more evaluation, in which the student is given four techniques of reading from which to choose, precedes actual reading. These are: 1) study type, 2) careful, 3) rapid, and 4) skimming. He selects the best technique on the basis of his previous evaluations.

The reader is also asked to time himself while reading so that a chart may be made of his rate on each selection. In this way he is able to determine his progress in flexible reading.

FLEXIBILITY EXERCISE EXAMPLE

PRIMARY EMOTIONS

Among the most central of our experiences of the self are the emotions. We feel anger, fear, joy, and grief; we feel guilt, pride and shame, misery and contentment, awe and wonder, love and hate.
In its broadest psychological meaning the term emotion refers to a stirred-up state of the organism, reflected in three quite different ways: (1) emotional experience, e. g., the person feels angry; (2) emotional behavior, e. g., he curses and attacks his tormentor; (3) physiological changes in the body, e. g., the blood rushes to his face, or the heart beats faster. These three aspects are intimately related. In this selection we are concerned with the primary emotions.

Joy, anger, fear, and grief are often referred to as the most basic of primary emotions. They are so designated for several reasons. They appear early in the development of the individual; the situations that 1
evoke them are basically simple; they are intimately involved with aroused, goal-striving activity, and hence likely to be found with high degrees of associated tension.

There is a tendency to view emotions as disruptive and handicapping. This tendency overstresses the undesirable aspects too. Let us 2
therefore accentuate the positive by starting our discussion with joy.

JOY. The essential situational condition for joy is that the person is striving toward a goal and attains it. The intensity of the joy depends upon the level of tension which had built up in the person in the course of the motivated act. Where there is an unimportant goal, the 3
emotion may be no more than mild satisfaction; for an extremely important goal, the result may be transports of joy.

The joy is the emotional counterpart of the release of tension with

goal-attainment. Thus suddenness with which the goal is achieved and tension released affects the intensity of the joy. When a person wins 4
a game easily, he may feel only mild elation; but winning a game at the last instant, when all seemed lost, may evoke an ecstatic feeling.

This is not to say that the feeling of joy that comes when the child gets the new toy is identical with the feeling of joy that comes when an 5
Archimedes solves a baffling problem. Nor is the savage joy of the person who sees his enemy struck down the same as the ecstatic joy of the religious experience.

But our concern here is not with all the specific goal achievements that can lead to joy, or with the nuances of joyous feeling. The main 6
point is to see that it is goal-attainment and tension release that are the essential situational determinants.

ANGER. The essential condition for arousing anger is the blocking of goal-attainment, especially where there is persistent frustration of goal-attainment, with the gradual accumulation of tension. At first 7
there may be nothing more than a slight feeling of exasperation or vexation; with prolonged frustration the person may become truly angry, and eventually reach a state of rage or fury.

Not all cases of thwarting of one's goals will lead to anger. Thwarting has many different possible consequences, of which anger if but one. A great deal seems to depend upon the extent to which there is an identifiable barrier to goal achievement. If the person simply 8
cannot see what is preventing his goal achievement, anger is not so likely to occur; but if he sees (rightly or wrongly) an obstacle that is causing the trouble, and particularly if the thwarting seems to him somehow "unreasonable" or "deliberate" or "malicious," anger is more

likely to occur and to be expressed in aggressive action against the thwarting object.

FEAR. Joy and anger are, in a sense, emotions of "approach," that is, they involve goal-striving. Fear, on the other hand, is an emotion of "avoidance," involving an escape from danger. And because the world is full of potential dangers, fear is a very commonly experienced 9
emotion. Some observers of human nature have even made it the core of human behavior; in their view, "It is fear that makes the world go round."

The essential situation for the onset of fear is the perception of a dangerous object or condition that threatens us. The key fact in the situation seems to be the lack of power or capability of the person to handle the threat. If he does not know how to ward it off, or espe- 10
cially if he sees his escape route blocked, fear is induced. The profoundest terror can be induced by a feeling of powerlessness in the grip of overwhelming forces, such as an earthquake or other natural cataclysms, or--on a more modest scale--a father's harsh threats as they appear to the child.

In due course we may become habituated to dangerous objects, liv- 11
ing close to them without alarm; this happens because we have learned how to cope with them. But if the immediate situation changes, so that our well-established means for handling them are disrupted, fear emerges.

It is especially noteworthy that unexpected alterations in our usual surroundings can induce fear. It is as though we have organized our worlds in such a way as to protect ourselves, and any disruption 12
in the order may cause us immediate apprehension. It is commonplace that a young child is often made anxious and apprehensive by changes

in his customary surroundings. The "terror of the unknown" is not merely a literary expression, for it is universally found that the strange, the unfamiliar, may cause dread in its viewers. This is a very primitive reaction, for we note it also in animals.

It is with fear, perhaps more than with any other emotion, that contagion by others is most acute. Seeing and hearing others in a state of terror will often induce panic in the onlooker even when 13
there is nothing else in his situation to account for it.

An important component in many fear situations is the future time-perspective, that is, we anticipate what is going to happen and by dwelling upon it in our thoughts may work up a severe state of anticipatory dread. The worst torture may sometimes be that which assails 14
the prisoner in his cell before he is taken to the torture chamber; dentists know all about this!

Such anticipation of impending threat is typically felt as anxiety. The limitless possibilities of imagined future events provide us with endless fuel for anxiety. Moreover, the very complexity of the worlds 15
in which we live is such as to make it hard for most people to be sure they have protected themselves against all possible danger.

Startle. Many years ago Watson experimented with fear in young infants, and concluded that the sudden loss of body support and sudden loud sounds were the critical stimuli. Since his day, laboratory psychologists have experimented extensively with effects of inducing the so-called startle-response--which we have all studied less elegantly by saying "Boo!". They have been especially interested in the pattern of physiological 16
upsets and bodily expressions during startle, on the assumption that the pattern resembles that during fear and that studying it is a simple

way of studying the effects of fear. It is obvious that when suddenly startled, we often feel a momentary fright. Yet we cannot equate startle and fear; there are many instances in which the startle fails to arouse fear, perhaps arousing a quite different response, such as laughter.

The sudden stimulus may "trigger off" the emotion of fear when the rest of the situation predisposes toward its arousal. Note the difference in emotional effects of loudly saying "Boo!" in the ear of an unsuspecting person when he is reading a suspense-thriller at night, and when he is sitting in a football stadium watching the game. In 17
the former situation this may well lead to fear; in the latter it is more likely to lead to surprise, laughter, annoyance, or nothing whatever.

GRIEF. Joy, anger, and fear have to do with the seeking of goals or the escape from dangers. Grief is concerned with the loss of something sought or valued. The intensity depends upon the value; usually the most profound grief comes from the loss of loved persons, and deep 18
feelings of grief may come also from the loss of prized possessions. These are cases of intense and enduring grief; there are all shades of grief, down to the merest feeling of disappointment or regret.

Joy, anger, and fear are typically "active" emotions, involving large amounts of tension. Grief is often typically "quiet," less characterized by tension and activity. Yet there are obvious cases in which the grief is expressed in crying and other active expressions. A person who sees his loved one endangered and seeks to protect her may be thrown into the most violent of griefs if she is lost. And on a much less profound scale, the player who has lost a close game may burst into tears, or the child who has seen a desired toy destroyed may show an outburst 19

of grief. There is often a "delayed" reaction in cases of bereavement. First, the person experiences a sense of shock, with a "numbness"; he, and those around him, may be surprised that he seems to feel no real emotion. This is typically followed by a period in which the realization of the loss becomes clearer and now the person may find himself experiencing genuine transports of grief, with a high degree of tension and active expression.

It would seem probable that this grief occurs because of the flow of thoughts that envisage the many ways in which the loss of the loved one forever prevents many things desired and needed. And as the person comes from moment to moment into contact with all sorts of objects that remind him of the loved one--his clothes, his books, his photographs--there is repeated accentuation of the significance of the loss; the child's toys ("We loved to play together, and never again can we play together"); the books ("He wanted so to learn to read and I wanted to help him, but now it is too late"). And with the whiplash of each newly perceived aspect of the loss comes the renewed burst of grief. Even long after the emotion has disappeared, when suddenly the person comes upon a forgotten possession of the dead one, he is once again grief-stricken. We see again the critical significance of situational factors in determining the emotion.

As with all emotions, the bare essential of loss of something valued is far from the entire story. For we know of many cases in which the loss of something valued is <u>not</u> accompanied by grief. In some cultures the death of a loved one is an occasion for quiet joy; the loved one has joined "his fathers," has gone to the "happy hunting ground." And thus it seems clear that what is critical is how the loss is perceived,

and in what larger context. The immediacy of the personal loss may be dwarfed by the wider perspectives: "the dead one is now happier, is waiting for me to join him after the grave"; and on a more trivial scale of griefs, this lost game is but one of many more to be played, this broken toy can be replaced by a better one.

Though we have classified grief as a primary emotion, along with joy, anger, and fear, it appears to be a somewhat less primitive emotion. It is not at all clear how extensively grief occurs in animals lower than man. And in children, too, grief comes later than the other primary emotions. It would seem that there is a greater complexity of 22
the essential situation involved in grief, a greater element of the recognition of the loss and its consequences, a greater dependence on the <u>future</u> in one's time-perspective. This may exceed the mental grasp of the animal or young child.

An additional factor is especially relevant to the emotion of grief. To a greater extent than is true of joy, anger, and fear, the situational pattern evoking grief involves concrete <u>objects</u>. Without the concrete thing that is valued and lost, there is no grief. In joy, anger, and 23
fear objects may also play a role, but with less necessity. We may feel an indeterminant joy, an unconnected anger, a fear "of we know not what," but grief pertains to a particular object. There is probably no "free-floating" grief.

Primary Emotions

I. Background of Experience

Your familiarity with this material should influence your approach to reading. By answering the following questions, you will become aware of the present knowledge you possess about this subject.

General Knowledge

1. Which of the following are regarded as primary emotions?
   a) love, envy, and pity.
   b) pain and disgust.
   c) joy, anger, and fear.
   d) shame, pride, and guilt.

2. Anger may be called an emotion of approach.
   True False

3. Tension release is an essential characteristic of joy.
   True False

4. An essential condition for anger is:
   a) blocking.
   b) goal striving
   c) tension release
   d) a and c.

5. Joy, anger, and fear are typically _____emotions.
   a) active.
   b) quiet.
   c) delayed.
   d) b and c.

6. Anticipation of imagined future events causes anxiety.
   True False

7. Grief is less characterized by tension and activity.
   True False

8. Which of the following is more likely to be caused by observing others in the same emotional state?
   a) joy.
   b) anger.
   c) fear.
   d) grief.

9. The loss of something "valued" is influenced by _____.
   a) the unexpectedness of the event.
   b) how the loss is preceived.
   c) terror of the unknown.
   d) the maturity of the individual.

10. Emotions can best be defined as impulses toward action.
    True False

Technical Vocabulary

1. emotions	a) strong feelings. b) feelings of sympathy. c) undesirable feelings.
2. tension	a) tendon. b) mental strain. c) anger.
3. stimuli	a) capable of influencing activity. b) nerve endings. c) stigma.
4. anxiety	a) painful uneasiness. b) intense interest. c) imagination.
5. frustration	a) frivolous. b) feeling of joy. c) feeling of defeat

Evaluation:

I am _____ with the materials in this selection.

Comprehension:
Unfamiliar (1-3) Familiar (4-7) Adept (8-10)
Vocabulary
Unfamiliar (1-2) Familiar (3-4) Adept (5)

II. Preview of the Selection

A preview of the reading selection will provide you with a quick sketch of the topic under discussion. This orientation will help you organize the ideas as you read them later.

1. What is the title?

2. Read the introductory paragraph. What is the purpose of this article?

3. Give a brief description of your reaction to the word emotion.

Evaluation:

I expect this selection to be _____for me.

1) most difficult 2) difficult 3) average 4) fairly easy 5) simple.

III. Questions to Answer

Evaluation of your background of experience plus your survey of the selection should have caused questions to arise in your mind concerning this subject. By stating actual questions you would like to have answered, your reading will take on more meaning. When reading textbook material of this type, it is useful to note all headings and subheadings throughout the selection. Look at the four headings. State a question which comes to mind when you look at each of these.

Evaluation:

Considering the questions I have asked myself, I would expect to read for the purpose(s) of _____.

IV. Reading the Selection

At this point, you are ready to read. These previous steps have been most important to you, as they have enabled you to read with more understanding. Your overview of the selection has brought ideas and questions to your mind. You have some reasons for reading. After considering your purposes and evaluations, select one of the following types as best for you.

1) study type 2) careful 3) rapid 4) skimming

Now begin searching for answer to your questions. Read.

V. Review

Many times you may say you do not remember what you have read. Perhaps this is a result of your slamming the book down with relief that you have finished the assignment. It will not take long to review at the close of your reading and it will significantly influence your ability to recall. You have the organization of the selection in mind now and you should review the main points at this time. Some ideas may have escaped you and a quick glance over the selection will help synthesize your thinking. Look again at the questions you asked yourself in Step III. List the answers, plus any additional information which you think is important.

VI. Evaluation of Comprehension

Supporting Details - Answer the following questions without glancing back at the selection.

1. The degree of joy a person experiences is influenced by the suddenness with which the goal is achieved.
   True False

2. Fear may be induced by which of the following:
   a) a perceived block.
   b) realization that a threat is uncontrollable.
   c) alterations in our organized surroundings.
   d) all of the above.

3. Grief differs from the other primary emotions in that the object of the grief is generally less related to concrete objects.
   True False

4. Emotions
   a) are always disruptive in effect.
   b) interfere with rational processes.
   c) facilitate motor actions.
   d) b and c.

5. Which of the following statements is <u>least</u> correct?
   a) failure of goal attainment results from the person's comparison of his level of actual performance with his level of aspiration.
   b) the sense of success or failure is evoked by every action in which a person engages.
   c) internalized social standards are direct applications of external social standards.
   d) perceived discrepancies between the self and the ideal self-conception are not always sufficient conditions for the arousal of emotions.

6. The inhibition of bodily expression may reduce the accompanying emotional feeling.
   True False

7. Fear is an emotion of _____.

8. _____ comes later in children than the other primary emotions.

9. If the individual cannot see what is preventing his goal achievement, anger is not so likely to occur.
   True False

10. We feel more emotional about a person when we empathize with him than when we sympathize with him.
    True False

<u>Vocabulary</u>- Check your word knowledge by finding a word in the paragraph (indicated in parenthesis) which means the same as the word or group of words given below.

1. innermost, closely personal. (1)

2. causing to break asunder. (2)

3. emphasize. (2)

4. violent emotions. (3)

5. to summon forth as from seclusion. (4)

6. state of rapture. (5)

7. a delicate gradation; a subtle variation. (6)

8. troubling; disquiet. (7)

9. blocking, frustrating. (8)

10. accustomed (11)

11. ingredient; element. (14)

12. deep. (18)

13. to view with the mind's eye. (20)

14. true picture; to see the proper relationship. (21)

15. pertinent; related to the immediate situation. (23)

Main Ideas

1. In what way do the following emotions differ?
   fear grief

2. Compare joy and anger.

CHAPTER V

SUMMARY

In reviewing the literature related to flexibility, it has been established that this skill is an aspect of reading which is: 1) frequently discussed, 2) extremely important, yet 3) sorely neglected in current materials for reading improvement classes.

The need for flexibility was apparent in the Oklahoma State University Reading Improvement classes in which many of the students revealed a lack of efficiency in reading. It was believed that reading efficiency would increase with the development of flexibility. This resulted in an examination of the process involved in attaining this skill and the eventual construction of exercises designed to increase flexibility.

The following is a summary of the contributions each chapter makes in the development of this work.

Chapter I defined reading flexibility as that skill which enables the reader to vary his rate according to 1) his purpose for reading, 2) the difficulty of the selection, and 3) his familiarity with the material. A need for specific training materials was clearly indicated and the following purposes were stated: 1) to establish a criteria for the development of materials designed to improve the reading flexibility of college students; 2) to develop materials on the basis of this criteria for use in college reading improvement classes.

Chapter II provides a summary of the limited research and a review of the literature. It is further established that more training materials, as well as additional research, would be beneficial in providing more extensive reading instruction directed toward increasing reading flexibility.

Chapter III is a further review of the literature to establish a rationale for developing flexibility exercises.

Chapter IV provides explanations and illustrations of the flexibility exercises developed as a result of this study. Selections were chosen largely from the content fields and are approximately 2000 words in length. The Dale-Chall Readability (1948) index was figured on each selection. Most of the selections included were comparable to grades 9 through 12. The flexibility exercises were developed according to the following steps and these are fully explained in Chapter III.

I. Background of Experience.
II. Preview of the Selection.
III. Questions to Answer.
IV. Reading the Selection.
V. Review.
VI. Evaluation of Comprehension.

Parts V and VI are discussed in a parallel study pertaining to comprehension.

It is suggested that the developmental exercises designed as a result of this study be incorporated into a college reading improvement program to aid in increasing the reading flexibility of college students.

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APPENDIX A

A DISTRIBUTION OF CONTENT ACCORDING TO SUBJECT, LENGTH OF SELECTION, AND READABILITY LEVEL

TABLE I

A DISTRIBUTION OF CONTENT ACCORDING TO SUBJECT, LENGTH OF SELECTION, AND READABILITY LEVEL

Area	Title	Number of Words	Readability Level
General			
World Events	"Dr. America"-Tom Dooley	1530	9-10
World Events	I Was A "Student" at Moscow State	1990	9-10
World Events	Rocket Shoot At White Sands	2180	9-10
Sports	College Athletics: Education or Show Business	2900	11-12
Humanities			
Literature	The Great Stone Face	5320	9-10
Architecture	The Nature of Materials	1600	9-10
Music	Folk Music In America	2210	9-10
Philosophy	The Philosophical Concept of Duty	2080	11-12
Natural Science			
Physics	What Good Is The Atom?	2220	9-10
Botany	Learning To Name Plants	1210	11-12
Geology	Close Relatives: The Solar System	2160	11-12
Chemistry	The Nature of Matter and Its Changes	1370	11-12
Social Science			
History	Technology and Industry In The Young Republic	1590	11-12
Psychology	Primary Emotions	1970	11-12
Anthropology	Marriage: The Various Forms It May Take	2360	13-15
Economics	Employment and Unemployment	2330	13-15

APPENDIX B

A LIST OF THE READING SELECTIONS AND THEIR SOURCES

TABLE II

A LIST OF THE READING SELECTIONS AND THEIR SOURCES

World Events and Sports						
Rocket Shoot at White Sands	*Man Against Nature*	Jonathan Norton Leonard	Random House	New York	1953	9-17
College Athletics: Education or Show Business	*Ideas for Writing*	Kenneth L. Knickerbocker	Henry Holt and Company	New York City	1956	196-204
I Was a "Student" at Moscow State	*Communism, Menace to Freedom*	Everest Mulekezi	Reader's Digest Educational Division	Pleasantville, New York	1962	132-138
"Dr. America"- Tom Dooley	*Freedom, America's Choice*	Tom Dooley	Reader's Digest Educational Division	Pleasantville, New York	1962	133-141
Humanities						
Folk Music in America	*All About Music*	Fredric Swift and Willard Musser	Etmar Publishing Company	Rockville Centre, New York	1960	125-135
The Philosophical Concept of Duty	*Types and Problems of Philosophy*, 3rd Edition	Hunter Mead	Henry Holt and Company	New York City	1959	284-290
The Great Stone Face	*High School Reading*, Book 2	Nathaniel Hawthorne	American Book Company	New York City	1961	439-450

Table II - Continued

The Nature of Materials	Writings and Buildings	Frank Lloyd Wright	Horizon Press	Spring Green, Wisconsin	1960	222-227
Natural Sciences						
The Nature of Matter and its Changes	Modern Chemistry	Charles Dull William Brooks Clark Metcalf	Henry Holt and Company	New York City	1954	19-24
Close Relatives: The Solar System	Historical Geology	Carl G. Dunbar	John Wiley and Sons	New York City	1949	68-76
Learning to Name Plants	Textbook of Botany	E. N. Transeau H. C. Sampson L. H. Tiffany	Harper and Brothers	New York City	1953	18-25
What Good is the Atom?	Literature for Life	David Lilienthal	Houghton, Mifflin Company	Boston	1958	245-251
Social Sciences						
Primary Emotions	Elements of Psychology	David Kretch and Richard S. Crutchfield	Alfred A. Knopf	New York City	1958	235-239
Technology and Industry in the Young Republic	American History, A Survey	Richard Current T. Harry Williams Frank Freidel	Alfred A. Knopf	New York City	1960	161-170
Employment and Unemployment	Steel's Competitive Challenge	American Iron and Steel Institute	American Iron and Steel	New York City	1961	25-30
Marriage: the Various Forms it May Take	Cultural Anthropology	Felix M. Kessing	Rinehart and Company, Inc.	New York City	1958	255-265

VITA

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