Increased public concern about students' basic skill levels and about the need for minimum-competency tests has placed part of the responsibility for reading-skills development on content-area teachers. This annotated bibliography is a resource guide for content-area teachers who want to integrate reading-skills instruction with their subject areas. The resources discuss ways to match the reader to the text; teaching techniques for improving comprehension, vocabulary, and study skills; and specific suggestions for English, mathematics, science, and social studies instruction. A reference bibliography is included. (RI)
READING INSTRUCTION IN THE CONTENT AREA

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Foreword

The Educational Resources Information Center (ERIC) is a national information system developed by the U.S. Office of Education and now sponsored by the National Institute of Education (NIE). It provides ready access to descriptions of exemplary programs, research and development efforts, and related information useful in developing more effective educational programs.

Through its network of specialized centers or clearinghouses, each of which is responsible for a particular educational area, ERIC acquires, evaluates, abstracts, and indexes current significant information and lists this information in its reference publications.

ERIC/RCS, the ERIC Clearinghouse on Reading and Communication Skills, collects, analyzes, evaluates, and disseminates educational information related to research, instruction, and personnel preparation at all levels and in all institutions. The scope of interest of the Clearinghouse includes relevant research reports, literature reviews, curriculum guides and descriptions, conference papers, project or program reviews, and other print materials related to all aspects of reading, English, educational journalism, and speech communication.
The ERIC system has already made available—through the ERIC Document Reproduction Service—much informative data. However, if the findings of specific educational research are to be intelligible to teachers and applicable to teaching, considerable bodies of data must be reevaluated, focused, translated, and molded into an essentially different context. Rather than resting at the point of making research reports readily accessible, NIE has directed the separate clearinghouses to work with professional organizations in developing information analysis papers in specific areas within the scope of the clearinghouses.

ERIC/RCS is pleased to cooperate with the Iowa Department of Public Instruction in making this packet on Reading Instruction in the Content Area available to educators in Iowa.

The Retrieval Request Form at the end of this packet is provided so document abstracts from Resources in Education (RIE) in the form of microfiche can be ordered. Your Area Education Agency (AEA) can provide a microfiche reader, if you need one. Journal citations from Current Index to Journals in Education (CIJE) can also be ordered; these are available as a "hard copy" (paper copy). This packet of information is FREE to teachers and administrators in Iowa.

Bernard O'Donnell
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READING INSTRUCTION IN THE CONTENT AREA

Introduction

Teaching reading in the content areas, that is, teaching students to read their social studies, home economics, or mathematics materials, has a two-fold purpose: one is to help students improve reading skills and the other is to help students understand the assignment and therefore learn more about the subject being taught.

The need for teaching reading in the content areas arises because reading skills are part of the language development and intellectual development that continues through adolescence into adulthood. Reading skills are not completely developed at the end of formal reading instruction in elementary school. Vocabulary, comprehension, and study skills must still continue to be developed for all students, and for some students there will still be problems with word recognition.

Content teachers may expect increasing requests to consider reading skills as part of their instructional responsibility as more schools respond to public alarm about the basic skill levels of graduating students by passing minimal standards for graduation. In addition to individual school district requirements, the latest survey of the Education Commission of the States on minimal competency testing for high school graduation and grade-to-grade
promotion (Pipho, 1977) identified eight states and ten state boards of education which have such legislation or rulings enacted. Similar legislation was also pending in fifteen states and in the U.S. House of Representatives in 1977.

Content teachers who are concerned with the second part of the purpose, helping students obtain information from assigned materials, will also be interested in teaching reading skills in their classes. The Report on a National Study of the Nature and the Quality of Instructional Materials Most Used by Teachers and Learners, published by the Educational Products Information Exchange Institute (EPIE), notes that teacher-survey information suggests that approximately 65 percent of class time in the areas of math, reading, science, and social studies is spent using print instructional materials. This heavy emphasis on print materials as a source of learning in content areas becomes a cause of difficulty for the teacher who in a typical classroom can expect a range of reading achievement to be two-thirds the median chronological age of the students. A ninth-grade class with a median age of 14 years and six months would have an expected reading achievement range of nine years and eight months. Therefore, some students would be reading at an early fourth-grade level and some students would be reading at a college freshman level. Of course, all levels in between could be represented, and the range could be even greater in some schools. Thus, one textbook will seldom be appropriate for all students in a class.

Many content area teachers who have never taken a reading course, such as the social studies teachers in Hudson's survey [ED 105 446], see the necessity of incorporating the teaching of reading skills in their classes
but feel inadequate to the task of incorporating reading skills without aid. This packet is intended to be a guide to content area teachers who would like to know more about how to integrate the teaching of reading skills with the teaching of their subject.

The fourteen teaching practices listed below [ED 119 143] are often recommended to teachers and administrators who wish to aid their students in the development of both knowledge of a particular field and the reading skills necessary to become an independent reader in the area. To gain an awareness of practices in the teaching of reading in the content areas, teachers are encouraged to rate themselves against the practices described in this self-assessment instrument. Decide whether the practices Seldom or Never, Sometimes, or Almost Always apply in your classroom; you may discover that you have already been paying attention to reading skills in your classroom:

1. Text material used is suited in difficulty to the reading levels of the students.

2. Students are encouraged through assignments to read widely in related materials.

3. Adequate time is taken to introduce the format of the text and to discuss how it may be read effectively.

4. Adequate attention is given to vocabulary and concepts introduced in the various units.

5. The teacher knows the special study skills involved in the subject and teaches them.

6. The assignments are made clearly and concisely.

7. Students are taught to use appropriate reference materials.

8. The teacher takes advantage of opportunities that may arise to encourage students to read recreational as well as informational reading matter.
9. The teacher helps the poor reader to develop adequate reading skills.

10. Readings from various textbooks are provided for those who cannot read the regular text.

11. Students are grouped within the classroom for differentiated instruction.

12. The teacher knows the reading level of the textbooks being used.

13. The teacher knows the reading ability of the students from standardized tests, other evaluative materials and/or cumulative records.

14. The teacher illustrates the dominant writing patterns of a given content area.

The use of a single grade equivalent or percentile number to represent a student's reading achievement may not give a true picture of a student's instructional levels. The same problem exists in describing teaching materials. Experience suggests that content teachers need information beyond a current test score and a general index of material difficulty to develop a strong program. Caution is also recommended in the interpretation of test scores for instructional purposes. Test scores typically represent the highest level of achievement the student can reach. An appropriate instructional level is usually found to be significantly below the student's test score level.

The remainder of this packet on content reading has been divided into sections discussing practical resources to aid in the teaching of content reading skills. The resources were found by searching the Educational Resources Information Center (ERIC) data base. Entries included are from Resources in Education (RIE) and Current Index to Journals in Education (CIJE). Among the descriptor (index) terms used to search were Content Reading, Study Skills,
Readability, Reading Skills, Reading Comprehension, and Reading Instruction. The Retrieval Request Form located in this packet is provided so documents from RIE, in the form of microfiche, and photocopies of journal articles from CIJE can be ordered from INFORMS at no cost.

The Reference Bibliography cites references which are not available from INFORMS but which can be ordered directly using the address which is listed with each resource. Included in this section are reference tools which may be useful to subject area teachers. There are sources listing low-readability level books to use as alternative reading materials, a book designed to help teachers learn how to teach word recognition skills, a checklist of reading skills, a source citing effective reading programs, and textbooks on teaching in the content areas. Herber (1970) explains how to develop teacher-made study guides which include questions at different levels of ability. Thomas and Robinson (1977) focus on each subject in the secondary school curriculum and try to provide checklists of skills with suitable activities and principles for the creation of further instruction.

The documents suggested in this packet of information represent a state of the art in the area of teaching reading in different subject area fields. They contain current suggestions and practices which reading teachers, state curriculum groups, subject matter teachers, and researchers have suggested for use. Most of the information in the ERIC data base on content reading was developed by reading teachers and researchers. As content area teachers develop programs in this area they will likely generate additional information. The continuation of research efforts will also continue to add to new knowledge and understanding.
References

Hudson, Beverly S. *An Assessment of the Attitudes of Secondary Level Teachers toward Incorporating Reading Skills with Content; Report from the Project on Conditions of School Learning and Instructional Strategies*. Technical Report No. 329. Madison: University of Wisconsin, Research and Development Center for Cognitive Learning, 1975. [ED 105 446]


Matching the Reader and Text

This section lists resources to aid teachers in matching text and reader and to aid in assessment of reading ability and readability of text. Sources are given for a graded word list, which will give a grade level estimate of reading ability for individual students, and for a readability formula, which will give an estimate of the reading difficulty of prose passages. Other suggestions for assessing students' ability to read their textbooks include construction of informal textbook tests and cloze passages taken from the material to be assigned. Cloze passages which involve deleting every fifth word from a selected passage and asking students to fill in the blanks with an appropriate word have received much research attention over the past few years and are considered sound indicators of reading comprehension ability.
Title: Diagnosing Reading Needs of Secondary School Students

Author: Bursuk, Laura

Publication Date: 1976

Pages: 8

Descriptors: Secondary Education; *Reading Diagnosis; *Informal Reading Inventory; *Content Reading; *Cloze Procedure; *Readability; Textbooks; English Instruction: Reading Instruction; Reading Comprehension

Abstract: Three informal measures for determining whether students can read the assigned text material are described in this paper. The diagnostic measures are the informal textbook test, the cloze procedure, and an informal skills test. In the informal textbook test, a student is asked to read a 250-word passage, selected from the textbook intended for classroom use, first orally, then silently, and to answer questions prepared by the teacher to represent both literal and inferential comprehension. The cloze test involves selecting passages, deleting every fifth word, and asking students to fill in the blanks with an appropriate word. Scores between 44 percent and 57 percent correct indicate that the material is at instructional reading level. The informal specific skills test consists of paragraphs selected to represent skills such as comprehending the author's intent and noting the central thought in a series of paragraphs. Prescriptive teaching is suggested based on the findings. These informal measures are suggested for the English teacher specifically but could be used in all content areas.

Title: Determining the Readability of Instructional Material

Author: Hittleman, Daniel R.

Publication Date: August 1976

Pages: 22

Descriptors: *Readability; *Content Reading; *Instructional Materials; *Textbooks; *Cloze Procedure; Elementary Secondary Education; Post Secondary Education; Workbooks; Worksheets; *Readability Formulas

Abstract: Suggestions are presented in this paper to aid in the effective selection of instructional materials appropriate to the reading levels of the students who will use them. Readability formulas designed to predict the readability of reading material are discussed. The cloze procedure which attempts to measure the difficulty of text for individuals is recommended for use with instructional materials. Caution is suggested in the use of the traditional five-word deletion pattern in the case of scientific material. Alternatives to the correct word requirement include clozentropy, a procedure in which a reader's responses are compared to all responses placed in the blanks by a criterion group.
TITLE: Inservice Reading Resource Kit and Project Reading Alert: Package 6--How to Judge Readability of Books (Tape Transcript and Student’s Workbook)

AUTHOR: New York State Education Department, Albany. Bureau of Reading Education

PUBLICATION DATE: 1974 PAGES: 35

DESCRIPTORS: Elementary Education; Individualized Reading; *Inservice Teacher Education; *Readability; *Reading Diagnosis; Reading Improvement; *Reading Instruction; Reading Material Selection; Reading Programs; Reading Skills

ABSTRACT: Developed and coordinated by the Bureau of Reading Education of the New York State Education Department, Project Alert is a statewide inservice program to facilitate instituting or improving the diagnostic-prescriptive approach to reading instruction. As part of this program, a reading resource kit was prepared by the bureau to give structure and direction to the projects in the local schools. This multimedia kit presently has six packages, with three more to be prepared. Each of the packages in the kit analyzes one skills topic in reading. "How to Judge Readability of Books," the sixth package, describes one method for estimating the readability of a book, the Fry Readability Graph. The steps needed to learn to use the graph are presented, accompanied by several exercises to be performed. An overview of Project Alert and the administrator's handbook, which describes the intended uses of the packages, are included with each package.
TITLE: "Determining a Child's Ability to Read a Social Studies Textbook: A Preliminary, Informal Diagnosis"

AUTHOR: Rushdoony, Haig A.

JOURNAL CITATION: Social Studies Review 16(February 1976): 35-41

DESCRIPTORS: *Reading Diagnosis; *Reading Comprehension; *Social Studies; *Content Reading; *Measurement Techniques; Reading Ability; Study Skills; Textbook; Elementary Education

ABSTRACT: Demonstrates a preliminary, informal diagnostic procedure that a social studies teacher can adapt to the child and the textbook to determine the extent of a child's ability to read and to understand the content read.

TITLE: "The Effect of Content Area Material on Cloze Test Performance"

AUTHOR: Cohen, Judith H.

JOURNAL CITATION: Journal of Reading 19(December 1975): 247-250

DESCRIPTORS: *Content Reading; *Cloze Procedure; *Readability; *Reading Level; Reading Research; Secondary Education

ABSTRACT: Even when the readability levels of content passages are equal, cloze shows some content areas make easier reading.

TITLE: "A Group Instructional Inventory"

AUTHOR: Rakes, Thomas A.

JOURNAL CITATION: Journal of Reading 18(May 1975): 595-598

DESCRIPTORS: *Content Reading; *Measurement Instruments; *Reading Instruction; *Reading Skills; *Student Needs; Evaluation Methods; Secondary Education

ABSTRACT: Describes an instrument for assessing student needs in reading in the content areas.
EJ 068 906

TITLE: "Reading Evaluation by the High School Teacher--A Plan"

AUTHOR: Koenke, Karl

JOURNAL CITATION: Journal of Reading 16(December 1972): 220, 222-225

DESCRIPTORS: *Secondary Education; *Reading Tests; *Reading Programs; *Reading Diagnosis; Reading Skills; Reading Ability

ABSTRACT: Describes an informal reading test sequence with implications for reading skill instruction in the content areas. The tests are not new; rather, one test has been modified, and a relationship among three informal tests has been suggested.

EJ 001 556

TITLE: "The Graded Word List: Quick Gauge of Reading Ability"

AUTHOR: LaPray, Margaret; Ross, Ramon


DESCRIPTORS: *Word Lists; *Reading Ability; *Basic Reading; *Vocabulary Development; *Measurement Instruments

ABSTRACT: This graded word list, used to determine reading level and to detect errors in word analysis, is also entitled the San Diego Quick Assessment. It was formed by drawing words randomly from basal reader glossaries and from the Thorndike list.
Reading Skills Instruction: Comprehension, Vocabulary and Study Skills

This section emphasizes reading skills instruction in the areas of comprehension, vocabulary, and study skills. Document abstracts in this section offer suggestions for how to improve skills in these areas. The abstracts range in scope from a list of suggestions for developing vocabulary to a comprehensive state guide from Indiana which discusses an entire content area reading program for junior high schools, middle schools, and secondary schools, including suggestions for program implementation and evaluation.
Title: Reading Comprehension Idea Book
Author: Broward, Charles, et al.
Publication Date: 1976
Pages: 78
Descriptors: Class Activities; Elementary Education; *Learning Activities; *Reading Comprehension; Reading Skills; *Teaching Methods

Abstract: The 32 ideas for activities described in this document have been collected to help the reading teacher teach reading comprehension skills. Activities, listed according to their purpose, concentrate on specific skill areas which give children difficulty, such as following directions, finding the main idea, recognizing sequence, understanding inferences, and relating cause and effect.

Title: An Interdisciplinary Inservice Model for Teaching Reading in the Content Areas: Grades 7-9
Author: Granite School District, Salt Lake City, Utah
Publication Date: 1975
Pages: 281
Descriptors: *Content Reading; *Inservice Programs; *Inservice Teacher Education; *Interdisciplinary Approach; Junior High Schools; Mathematics; *Reading Instruction; Reading Skills; Sciences; Social Studies; Teacher Workshops; Teaching Models

Abstract: The model outlined in this document describes the development of an integrated approach to teaching content reading skills to teachers. Methods and materials applicable to texts and media currently used in classrooms were produced by inservice teachers of science, math, and social studies at a Salt Lake City junior high school. This document contains a copy of the original proposal, a description of the inservice model, an evaluation of the project, teacher evaluations, and outlines of ten workshop sessions (critical and interpretive reading skills, critical thinking, comprehension skills, word attack skills, word identification skills, following directions, vocabulary, vocabulary building, reading study skills, and summaries). Included in each of the session outlines are a discussion of methods and copies of materials developed for use in that skill area.
ABSTRACT: This guide offers suggestions for an all-school reading program focusing on four areas of instruction: a diagnostic-prescriptive instructional reading program, a content area instructional reading program, a recreational-leisure reading program, and an efficiency-study skills reading program. Techniques for diagnostic-prescriptive reading include reading interest inventories, informal reading inventories, standardized reading achievement tests, and a checklist for organizing reading instruction. Suggestions are given for teaching the developmental skills of vocabulary, comprehension, and study skills. Comprehensive sections on how to teach reading in the content areas of English, social studies, science, mathematics, and home economics are provided. A materials listing indicates level and skills use of many commercial materials. Means for evaluating the all-school reading program are suggested.

ABSTRACT: This study assessed the attitudes of secondary school social studies teachers toward incorporating the teaching of reading skills with content. Two groups of teachers were administered a questionnaire—group A was composed of 21 teachers at one of four high schools in a city school system who had the services of a reading consultant; group B was composed of 10 teachers in the social studies department of a suburban high school who did not have the services of a reading consultant. The questionnaire asked the subjects to indicate whether they strongly agreed, agreed, were neutral, disagreed, or strongly disagreed with fourteen statements. The results indicated that teachers from both groups saw the necessity of incorporating the teaching of reading skills in their classes, but generally, content area teachers felt inadequate to the task of incorporating reading skills without aid.
Aiding Secondary Subject Teachers in Guiding Reading Growth

TITLE: Aiding Secondary Subject Teachers in Guiding Reading Growth

AUTHOR: Courtney, Leonard

PUBLICATION DATE: September 1973

PAGES: 19

DESCRIPTORS: *Content Reading; Critical Reading; Reading; *Reading Development; Reading Improvement; *Reading Instruction; Reading Programs; *Reading Skills; Secondary Grades; *Teaching Techniques

ABSTRACT: Described in this paper is a technique for reading instruction at the secondary level which emphasizes paragraph-passage examination and is intended to fit into any content teacher's daily work. The technique described provides occasion to establish purpose in reading-study assignments, utilize experience and previous background to develop meaning, introduce new vocabulary, determine word meaning from context, intensify levels of comprehension from literal to evaluative, examine semantic and literary nuances, and study paragraph structure and internal paragraph relationships. Three different kinds of passages, chosen principally for their illustrative value rather than for any direct practical transfer to a particular classroom, are presented. Passage one briefly describes New York City; suggestions for teacher use include discussing general background relative to the passage, use of questioning to facilitate understanding, and identifying the main idea. Passage two is a social studies passage and is presented to demonstrate multiple word skills and demonstrate a shift from literal to critical reading. The third passage presented, opening lines from "Dandelion Wine," is intended to serve as an example of introducing a story and as an exercise in entry to imaginative language.
ED 089 198

TITLE: A Classroom Reading Program

AUTHOR: Harker, W. John

PUBLICATION DATE: May 1974

PAGES: 11

DESCRIPTORS: *Content Reading; Reading; Reading Achievement; Reading Comprehension; Reading Diagnosis; *Reading Improvement; *Reading Instruction; Reading Material Selection; *Reading Programs; *Secondary Education; Teaching Techniques

ABSTRACT: Despite the continued lack of adequate professional preparation of secondary teachers in reading, there are steps which the secondary classroom content-area teacher can take to improve the reading ability of his or her students. The first thing the teacher must do is to determine the specific reading and study skills required by students for content learning. This establishing of goals takes place before instruction begins. The next step is to determine the extent to which students possess these skills. When students' reading status has been assessed and their particular skill's deficiencies determined, the teacher should gather reading materials which represent the range of reading abilities found in the classroom and provide practice in particular areas of weakness. The teacher must then decide upon patterns of classroom organization to maximize teaching effectiveness. The most obvious organizational pattern is to group students by their determined reading levels and to teach content using material written at the appropriate level of difficulty. Finally, the teacher should use a functional approach to evaluate students' growth in reading and study skills.

ED 080 945

TITLE: Reading in the Content Fields; An Annotated Bibliography

AUTHOR: Fay, Leo

PUBLICATION DATE: 1969

PAGES: 19

DESCRIPTORS: *Annotated Bibliographies; *Content Reading; *Critical Reading; Elementary Grades; English Education; Mathematics Education; *Reading Development; *Reading Instruction; Reading Research; Science Education; Secondary Grades; Social Studies

ABSTRACT: This 70-item annotated bibliography on reading in the content areas lists general references on the topic, references relating to critical reading, and specific references in each of the four main subject fields: mathematics, science, social studies, and language arts and literature. Additional bibliographies of the research literature in content area reading are also cited.
ED 070 072

TITLE: Wisconsin Design for Reading Development: Rationale and Objectives for the Study Skills Element. Working Paper No. 84

AUTHOR: Otto, Wayne, et al.

PUBLICATION DATE: February 1972

DESCRIPTORS: *Behavioral Objectives; Elementary Grades; Integrated Curriculum; *Language Arts; Map Skills; *Reading; Reading Materials; *Reading Skills; Social Studies; *Study Skills

ABSTRACT: Essential skills and objectives for the Study Skills element of the "Wisconsin Design for Reading Skill Development" are presented. Three major subareas—maps, graphs, and reference—and several substrands for each are identified. Sources consulted and a rationale for choosing specific skills are given.

ED 052 913

TITLE: Developing Reading Study Skills in the Content Areas

AUTHOR: Daines, Delva

PUBLICATION DATE: April 1971

DESCRIPTORS: *Content Reading; *Junior High School Students; Locational Skills (Social Studies); Reading Instruction; *Reading Skills; Reading Speed; *Study Skills

ABSTRACT: Junior high school students need instruction in utilizing the various reading study skills as a means of better understanding content and of becoming more independent learners of subject matter. Teachers in the content areas, by using texts and subject-related materials, are in the best position to teach these skills. Although each subject has its own study skills, there are six basic study skills that are most generally useful. First, instruction in ways of locating and using sources of information should be given. Second, students should learn flexibility in reading by developing the skills of skimming and scanning. A third important study skill is the ability to select and evaluate ideas, which consists largely of identifying significant ideas and relevant details. Related to this skill is the ability to organize ideas by determining relationships among them. Outlining, notetaking, and summarizing are helpful ways of organizing ideas. A fifth skill that is of benefit to junior high school students is the ability to follow directions, beginning with very simple procedures and progressing to the complex. Finally, skill in using graphic and tabular aids can help in synthesizing facts and details into usable patterns.
ABSTRACT: Secondary school students must gain increasing independence in the reading study skills in order to meet the requirements of current subject demands. Many students do not know how to apply the study skills effectively. Nor do these skills seem to be taught. When providing the students with instruction in the study skills, the teacher must emphasize techniques for attacking an assignment effectively, and the teacher's own classroom procedure should exemplify the techniques to be used. The teacher can do four things with the students. First, an overview of the material should be given to denote the author's treatment. Second, the students' backgrounds should be expanded and filled in as necessary. Third, basic conceptual terms should be noted and clarified. And fourth, the students should be directed to read for specific purposes. The students should understand this procedure and incorporate it into their own habits of study. They should also learn to implement the Survey-Question-Read-Recite-Review (SQ3R) study formula and to see the similarities between the formula and the teacher's classroom technique.
EJ 148 901

TITLE: "Improving Comprehension of Reading Assignments"

AUTHOR: Burron, Arni

JOURNAL CITATION: Social Studies Review 16(February 1976): 31-34

DESCRIPTORS: *Reading Comprehension; *Reading Assignments; *Skill Development; *Directed Reading Activity; *Reading Difficulty; Educational Improvement; Reading Improvement; Teaching Methods; Social Studies; Elementary Secondary Education

ABSTRACT: Steps for teachers to follow in improving reading comprehension among students are presented. Three main levels of reading are identified and basic reading skills necessary for a mature reader are outlined.

EJ 132 405

TITLE: "Vocabulary Development in Content Areas through the Use of Morphemes"

AUTHOR: Burmeister, Lou E.

JOURNAL CITATION: Journal of Reading 19(March 1976): 481-487

DESCRIPTORS: *Content Reading; *Vocabulary Development; *Morphemes; *Reading Instruction; *Teaching Methods; Reading Skills; Secondary Education

EJ 129 225

TITLE: "Increasing Understanding in Content Reading"

AUTHOR: Hansell, T. Stevenson


DESCRIPTORS: *Content Reading; *Reading Comprehension; *Student Centered Curriculum; *Reading Instruction; *Learning Activities; Secondary Education; Textbook Content

ABSTRACT: Argues that student-centered pre-reading activities can convince students they know more than they do about their textbooks.
ABSTRACT: The two-fold role of the content area secondary school teacher in teaching content and in teaching learning process is investigated. A research model, called the Structured Overview, showing the relationships among basic elements of the study of the secondary school curriculum, is presented, and assumptions clarifying the perspective of the nature and purpose of reading instruction in the content areas used in this research are listed. From this comprehensive research model, several areas were selected for short term iterative studies which are reported in this monograph. In section one, Comprehension, a theoretical construct of levels of comprehension and the development of an evaluative instrument for this construct are explicated. In section two, Lesson Structure, a theoretical paper on the Structured Overview, entitled "The Use of Vocabulary as an Advanced Organizer," is followed by practical application of the Structured Overview model to biology, English, mathematics, and earth sciences. In section three, Attitude Scales, procedures for construction of an attitude scale and a report of the use of one with social studies students and the use of a scale by students to assess teacher performance are presented. Projections for continuing the research into the second year are given.
TITLE: "Learnin' Words: Evaluating Vocabulary Development Efforts"

AUTHOR: Bruland, Richard A.

JOURNAL CITATION: Journal of Reading 18(December 1974): 212-214

DESCRIPTORS: *Reading Instruction; *Evaluation Methods; *Vocabulary Development; *Reading Improvement; *Content Reading; Secondary

ABSTRACT: Suggests that three dimensions should be considered by teachers who wish to develop the vocabulary development process of the students.
Specific Suggestions: English, Math, Science and Social Science

Specific suggestions for teaching reading in English, mathematics, science, and social studies are given in the abstracts in the third section. While some of the information includes subjects from the first two sections of this packet, new information pertinent to subject matter areas such as discussions of word problems and mathematical symbols is presented.
ABSTRACT: Reading the language of mathematics textbooks is very different from reading the narrative in traditional basal textbooks. Children should be taught specific skills such as noting details, following directions, and seeing relationships. Students should be shown how to modify their flexible narrative reading styles to one of great deliberation in order to understand mathematics reading material. The specialized vocabulary of mathematics and the special mathematical symbols must also be specifically taught, beginning with concrete examples when possible. Suggestions for instruction include getting the students to discuss the expository material or the verbal problem in order to understand their thinking processes, being careful as an instructor not to talk too much, being sure that students understand the technical vocabulary, and preparing short answer multiple-choice tests to use as pre-tests before beginning instruction in a particular concept.

ABSTRACT: The purposes of this booklet are to acquaint both mathematics teachers and reading teachers with some skills which students need for effectively reading the language of mathematics and to provide sample activities which may be used as an integral part of the mathematics class, in an effort to help students develop those skills. Since mathematics is an abstract science involving the use of a system with highly specialized symbolism and technical terminology, it is suggested that the mathematics teacher accept major responsibility for teaching students to read mathematics. A section on vocabulary and symbols discusses reading mathematical symbols, the directionality of such symbols, and reading mathematical words. Following directions, interpreting graphic materials, reading mathematical sentences, and reading and solving word problems are discussed in the comprehension section. Another section includes a detailed discussion of study techniques.
ED 134 923

TITLE: Science and Reading

AUTHOR: Florida State Department of Education, Tallahassee

PUBLICATION DATE: 1975 PAGES: 32

DESCRIPTORS: *Science Education; *Content Reading; *Reading Skills; *Reading Improvement; Science Activities; Readability; Informal Reading Inventory; Elementary Secondary Education

ABSTRACT: This booklet is designed to help science teachers who would like to improve the reading skills of their students. The first section of the booklet has three purposes: to acquaint the science teacher with meanings of terms related to reading in science, to acquaint the teacher with reading skills which can be taught and/or reinforced through science activities, and to provide a source of such activities. The second section is an informal inventory to help the teacher diagnose the skill areas in which a student needs help, and the third section contains a Fry Readability Graph to help the teacher determine the suitability of books for individual students.

ED 134 922

TITLE: Social Studies and Reading

AUTHOR: Florida State Department of Education, Tallahassee

PUBLICATION DATE: 1975 PAGES: 52

DESCRIPTORS: *Content Reading; Elementary Secondary Education; Informal Reading Inventory; Readability; *Reading Improvement; *Reading Skills; *Social Sciences

ABSTRACT: This booklet was designed to acquaint social studies teachers with the meanings of some of the terms used in reading which are related to social studies, to acquaint these teachers with the reading skills that can be taught and/or reinforced through social studies activities, and to provide a source of a model of such activities. Activities are outlined for vocabulary development, comprehension skills, critical reading, and study skills. An appendix includes a cloze technique for evaluating student reading comprehension, a copy of an SQ3R (survey, question, read, recite, and review) study method for content reading, a procedure for teaching outlining skills, and a Fry Readability Graph for determining the suitability of a book for a student.
Abstract:
The 12 model assignments presented in this booklet are designed to help secondary-level students become more skillful and knowledgeable readers and to encourage the appreciation of literature. Each assignment provides a general objective, a product that the student is to create, a list of educational objectives which are specifically related to students' actions during the course of the assignment, suggestions for extending the assignment, and an example of a form or an excerpt from a text which can help students complete the assignment. Options are described for using these resource materials as class projects or in independent study assignments. Exercises include reviewing the dominant elements of setting (using haiku), identifying an episode in a novel or biography which lends itself to dramatization (using reader's theater), and demonstrating understanding of technical language in a nonfiction book (using a crossword puzzle).

Abstract:
This booklet begins with a rationale for a strategy for structuring reading activities in the English classroom in order to facilitate growth in reading ability and to accommodate students with varying initial levels of achievement. Specific suggestions are provided for prereading activities, the reading itself, and postreading activities. A bibliography related primarily to the theoretical rationale for the activities is included. Part of the ERIC/RCS Theory and Research Into Practice (TRIP) series.
TITLE: Selected Secondary School History Teachers' Suggestions for Teaching Effectively the Special Reading Skills Needed in the Study of History

AUTHOR: Davis, E. Dale

PUBLICATION DATE: 1975

PAGES: 15

DESCRIPTORS: *Content Reading; Critical Reading; *History Instruction; Questionnaires; Readability; Reading Comprehension; *Reading Instruction; Secondary Education; *Study Skills

ABSTRACT: In this study, 64 experienced history teachers who had also received advanced training in the teaching of reading were asked what practices or methods they would consider useful for other secondary history teachers to use in helping their students to read the text materials. Since a range of eight grade levels of reading achievement may be present in a history class which uses a common-textbook, there is a need for awareness of reading skills on the part of the history teacher. Some of the approaches listed as most effective were: help students learn special vocabulary; be specific when making assignments; give instruction in how to find and use needed reference materials; teach students how to read for the main ideas, supporting details, and different points of view; teach students how to use different parts of textbooks effectively; give specific purposes for reading assignments; teach students to evaluate what they read; use additional source materials; and determine reading level of students and readability level of the text.

TITLE: Improving Reading in Science. Reading Aid Series

AUTHOR: Thelan, Judith

PUBLICATION DATE: 1976

PAGES: 60

DESCRIPTORS: *Content Reading; Reading Comprehension; *Reading Improvement; *Reading Instruction; Science Courses; *Science Instruction; Sciences; Secondary Education; Thought Processes

ABSTRACT: The material in this monograph is based on the idea that science content and the reading and reasoning processes for learning may be taught simultaneously in the science classroom. Topics of the six chapters are: distinguishing between content and process, developmental and functional reading, diagnosis in teaching science; preparatory activities for teaching science; the use of guided material in teaching science; the reinforcement of vocabulary and comprehension in teaching science; and evaluation in the teaching of science. Two appendixes include an informal study skills inventory on a physical science textbook and an extensive statement to students about learning to think.
ABSTRACT: In an examination of the problem of national mathematical illiteracy, the math student, the math teacher, and the math problem are discussed. The math student may have defects, deficiencies, disruption, and/or differences in the cognitive abilities required to perform a mathematical problem. Math teachers may have internalized mathematical reasoning and its accompanying numerical coding and notation to the extent that they can hardly understand the primitive state of most students and many adults, and thus students tend not to question, but instead accept math as a closed system. The math word problem poses a barrier to learning because of the new words and notations and the complex language and terse sentences. An approach to these problems which involves the student, the teacher, and the problem is the R/Q procedure, a questioning strategy carried out between teacher and student in which they both read each sentence of the problem and then ask each other questions about the problem until the student is ready to solve the problem.

ABSTRACT: This bulletin provides the teacher with specific assistance in evaluating student behavior in two vital areas of social studies education—study skills and critical thinking. The first three chapters provide general suggestions. A fourth chapter gives suggestions on the use of the bulletin. Here, teachers are urged to use the exercises and suggestions as a starting point in directing the learning and development of more efficient study skills rather than as an end point to measure the relative mastery of particular skills or abilities. The remainder of the bulletin is devoted to the actual selection of test items. It includes exercises on: acquiring information; reading and issues; distinguishing between fact and opinion and between fact and inferences; recognizing statements which support generalizations; and determining the relative significance of questions.
TITLE: "Problems with Reading Skills in the Social Studies"

AUTHOR: Johnson, Roger E.


DESCRIPTORS: *Reading Skills; *Problems; *Social Studies; *Reading Improvement; *Reading Instruction; Skill Development; Teaching Techniques; Educational Improvement; Elementary Secondary Education

ABSTRACT: Discusses the nature of problems for students and teachers in the social studies which are caused by a lack of basic reading skills. Eleven suggestions for improving student reading levels are presented.
Reference Bibliography


Check lists designed to assess individual reading skills are available at the readiness level, at grade levels 1-6, and at an advanced level. The comprehension sections note many of the skills which content area teachers will want to evaluate and teach.

Available from: Walter B. Barbe
Department of Exceptional Children
Ohio State University
1945 N. High Street
Columbus, Ohio 43210

Cost: Readiness through Advanced Level $1.00

100 sheets of any single level $6.00

Readiness through Advanced Level 100 complete sets--$30.00

Reading Skills Sequence Chart $2.50

Also available in spiral-bound booklets from Readiness to Advanced Levels. Each booklet includes directions for use of the check lists, activities, the sequence chart, and ditto masters of the level ordered.

Available from:

Center for Applied Research in Education
P.O. Box 130
West Nyack, New York 10994

Cost: $9.95 plus postage for each level

This book is designed to provide teachers with the information necessary to help their students to cope successfully and independently with unfamiliar words. Three sources of aid in word identification are discussed, to provide a balance to the current overemphasis on phonics decoding as the only way for children to identify words. The three areas of word recognition discussed are the use of context to identify words, structural analysis of words, and phonics. Questions asked of the reader throughout the text emphasize the belief of the author that this information should be studied and mastered, rather than just skimmed, by teachers of reading.

Available from: Allyn and Bacon, Inc.
470 Atlantic Avenue
Boston, Massachusetts 02210
Cost: $10.95 cloth, $4.95 paper


This catalog of reading programs is a result of an intensive search by the American Institutes for Research of reading programs in operation across the nation. Although the principal objective of the research was to produce multimedia inservice packages for reading teachers which demonstrate twelve outstanding programs, the number of effective reading programs discovered was too significant to go unreported. Summaries are given for each of the 222 programs judged to have potential for improving reading ability. The size of each program and its target population are described; its starting date, staff, and major features are given; its facilities, materials, and equipment are listed; and its cost is detailed. Sources of further information on each program are also included. The programs outline elementary, secondary, adult, and special education areas and cover a wide range of reading skills, organizational plans, and geographical areas. The twelve programs to be depicted in multimedia packages are also briefly described. More complete descriptions of most of the programs can be found in the ERIC system.

Available from: National Council of Teachers of English
1111 Kenyon Road
Urbana, Illinois 61801
Stock No. 13001
Cost: $6.95 nonmember $5.50 member

This text is a handbook that suggests ways to teach students how to read their content materials and increase their understanding of the content at the same time. It is addressed to teachers whose primary interest is the content of the courses they teach. It is organized so that readers experience many of the procedures they are urged to provide for their students. Purposes are set for reading; technical vocabulary is presented before chapters are read; study guide materials accompany each chapter and are of the type recommended for use in content areas. Sample illustrative lesson materials accompany explanations. The Appendix contains additional reading guides designed by classroom teachers.

Available from: Prentice-Hall, Inc.
Englewood Cliffs, New Jersey 07632
Cost: $10.95 cloth


This book suggests reading activities and teaching strategies to encourage students' success in the following middle school and secondary school content areas: business; driver education; English, speech, and journalism; art, music, and theater; foreign languages (French, Spanish, and German); health; home economics and industrial and vocational arts; mathematics; physical education; science; and social studies. Part one focuses on classroom techniques for stimulating vocabulary development and generating understanding. Part two details activities for practicing the skills necessary for learning success in each area. Suggested grade level, objectives, required student and teacher preparation, and specific procedures are outlined for each activity.

Available from: Allyn and Bacon, Inc.
470 Atlantic Avenue
Boston, Massachusetts 02210
Cost: $16.50 cloth, $6.95 paper

This handbook includes materials developed by faculty members of George W. Wingate High School in a program to improve reading skills in subject area classes. These materials include lesson plans and various kinds of worksheets. Although the lessons involve many content areas, they are divided into the following reading skill subject areas: vocabulary building, finding details, finding the main idea, making inferences, following directions, and other study skills. The premise of this handbook is that as a subject teacher plans and develops a lesson, certain reading skills are involved quite naturally, thereby providing excellent opportunities to build and strengthen those reading skills. The teaching guide was developed as a total school effort to raise student reading levels to the eighth-grade level required by New York City for graduation from high school.

Available from: George W. Wingate High School Press 600 Kingston Avenue Brooklyn, New York 11203 Cost: $5.00 paper


This book emphasizes specific and practical methods a teacher can use to fuse reading and content. Specific ideas and techniques are presented to show how instruction in the reading skills can be incorporated into almost all subject areas. The first chapter develops a rationale with a philosophical base. Next, techniques of diagnosis are discussed so that instruction can be adjusted to the specific needs of the learner. This is followed by a discussion of the skills the learner needs to read effectively, with subsequent discussion of classroom techniques. Ways to individualize the instruction are emphasized. The major subject areas are investigated to show a more detailed implementation of the fusion of content and reading skills. Finally, the characteristics of a total high school reading program are described.

Available from: Charles E. Merrill Publishing Company 130C Alum Creek Drive Columbus, Ohio 43216 Cost: $9.95 cloth

The focus of this book is on improving reading instruction among disadvantaged minority groups through the language experience approach. Four chapters contain discussion of self-concept, the growth of self-concept, reading instruction and the disadvantaged, and adult literacy. The other 16 chapters consist of bibliographies on the heritage of black Americans--from Africa and other countries; the American heritage of the black American; the black American today; the American Indian background and history; the American Indian today; the Eskimo and Alaska; inner city life; Mexican-American and migrant workers; orientals; Puerto Ricans; social science; reading improvement; materials for instructional units in art, music, literature, and human relations among minority groups; audiovisual resources; professional resources; and materials for basic education of adult illiterates and school dropouts. Appendixes include an author and title index, a title and author index, and lists of publishers' names and addresses.

Available from: Garrard Publishing Company
1607 North Market Street
Champaign, Illinois 61820
Cost: $5.75 paper


The focus of this book is the teaching of reading as a thinking process. That is, reading is conceptualized as involving all the components of discovery: perceptive keenness, functional memory, creative inquiry, logical reasoning, and critical evaluation. The book is divided into ten chapters which contain both detailed accounts of instructional practice and extensive documentation. The chapters include: "Group-Directed Reading-Thinking Activities," "Research Related to Directing the Reading-Thinking Process," "Extending and Refining Concepts," "The Language Experience Approach," "Individualized Reading Instruction," "Word Recognition," "Evaluation," and "Versatility in Reading."

10 East 53rd Street
New York, New York 10022.
Cost: $13.95 cloth

This book suggests procedures not only for teaching the fundamental processes in reading but also for teaching reading in high school subject areas. Four chapters present methods for teaching vocabulary, comprehension, rate, and problem solving. Nine chapters are devoted to practical classroom methods for teaching mathematics, science, industrial arts, typewriting and business education, home economics, music, library services, fine arts, and physical education. Motivating activities, teaching procedures, and practice exercises are provided. Also presented are examples of lessons, interviews on how to teach reading, directions to students, warnings 'regard to "do's and don'ts," tests of different reading abilities, check lists, guide sheets, and practice work sheets.

Available from: Allyn and Bacon, Inc.
470 Atlantic Avenue
Boston, Massachusetts 02210
Cost: $18.95 cloth~


This bibliography of more than 1,000 titles for retarded and reluctant adolescent readers notes the grade level of difficulty of each book (the majority are of fifth-grade and sixth-grade level of difficulty) and includes annotations to indicate the nature of the books and to arouse interest in them. The categories under which the books are listed are adventure, aeronautics and outer space, animal life and adventure, biography, careers, community problems, family life and problems, folk tales and myths, girls' stories, health and safety, history and geography, hobbies, humor, minorities, music and art, mystery and suspense, nationwide problems, old favorites, personality and how to be popular, poetry and drama, science, science fiction, seafaring, short stories, sports, transportation and communication, world problems, and young people around the world. Sections are included for reading texts and workbooks, books in series, magazines and newspapers, and simplified dictionaries. A directory of publishers and distributors and indexes by author, by title, and by grade level of reading difficulty conclude the book.

Available from: The H. W. Wilson Company
950 University Avenue
Bronx, New York 10452
Cost: $12.00 cloth
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