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Joseph R. Kiehl

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**TEACHING READING IN CONTENT AREAS
AN IN-SERVICE COURSE**

by
Joseph R. Kiehl

**A RESEARCH PAPER
SUBMITTED IN PARTIAL FULFILLMENT OF THE
REQUIREMENTS FOR THE DEGREE OF
MASTER OF ARTS IN EDUCATION (READING SPECIALIST)
AT THE CARDINAL STRITCH COLLEGE**

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This research paper has been
approved for the Graduate Committee
of the Cardinal Stritch College by

Sister Marie Glette OSF

Date February 2, 1971

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CHAPTER I

INTRODUCTION

Background of the Problem

One of the duties of a reading resource teacher, in the Milwaukee Public Schools, was and possibly still is, the formulation of in-service courses. The writer, a reading resource teacher in a Junior High, was interested in developing such a course for the school at which he was employed. The content of such a course would cover basic concepts of how the content area teacher may incorporate reading instruction into his particular discipline.

Framework of Problem

The course was open to all teachers and administrators in the school. This included about eighty people. Therefore, the content was chosen with the knowledge of the wide variety of interests and backgrounds that might attend. The writer decided to use Herber's book¹ as the basis for the course. Not only did it cover the content but it was

¹Harold L. Herber, Teaching Reading in Content Areas (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1970).

also highly recommended by the writer's supervisor. This book was supplemented with material from other sources according to the content areas represented in that particular class. One of the ways that these needs were ascertained was to administer a questionnaire on the first day of class. This questionnaire was in the form of a list of basic reading concepts to be checked if the individual felt he needed strengthening in this particular area. Therefore the classes were structured partly into lectures on particular concepts in Herber's book then discussion, demonstration, or whatever was necessary followed in order to show how the particular concept could be incorporated into a particular discipline or other learning situation. In talking about class structure, it is also important to note that such in-service courses are structured into twelve clock hours. These could be divided into twelve one-hour sessions or eight hour and one-half sessions. The writer chose to have eight, one hour and one-half classes. It seemed necessary to have this amount of time to cover the material adequately and also to motivate attendance. Usually people would rather rearrange their schedules eight times than twelve. The course offered one in-service credit for successful completion. The amount of homework assigned was minimal based upon what the writer had seen assigned in other one-credit in-service courses. However, the exact amount of outside class work was decided on by the writer and his supervisor.

Summary

This chapter has described the problem of organizing an in-service course to help teachers in content areas teach reading. Subsequent chapters will discuss the manner in which the course was organized.

CHAPTER II

REVIEW OF LITERATURE

Introduction

In reviewing the literature, the writer concerned himself with two specific areas: the structure of in-service reading programs and material that relates to teaching reading in specific content areas at the junior and senior high levels.

Structure of In-Service Programs

In this section, the writer did not hope to find material exactly pertaining to his program, as its formation is unique to the writer's school and environment. It was hoped that ideas found in the review of literature could be incorporated into the writer's program.

DeCarlo and Cleland discussed a week's pre-school program highlighting the function of the basal reader and its accompanying activities.¹ Two additional activities beyond this initial work were conducted for the first sixteen weeks of the school year: 1) consultant services with visits into each of the participating classes every

¹M.R. DeCarlo and D.L. Cleland, "Reading In-Service Education Program for Teachers," Reading Teacher, XXII (November, 1968), 163-69.

three weeks on a rotating basis and 2) bi-weekly meetings of one and one-half hours covering necessary aspects of the pre-school program, problems that teachers identified, demonstrations, and sharing of reading experiences and techniques.

Austin discussed various aspects of in-service programs. Some of her suggestions were the following: (1) In-service programs should be continuous, year-to-year efforts. (2) Released time should be provided for teachers to attend meetings. (3) Participants should play a more active role in the planning of the program content. (4) The size of the groups should be limited to permit active participation of those in attendance. (5) Use should be made of TV, audio-visual aids, and case studies for the purpose of developing theoretical concepts in realistic situations.¹

Another type of in-service program was outlined by Jones. In this program the reading specialist made his services available to the system one school day each week and met with the entire faculty and administration for an extension course that evening. By paying tuition any participant could obtain graduate credit at the institution from which the specialist came. The specialist taught two remedial reading sections during the day of his visit,

¹M.C. Austin, "In-service Reading Programs," Reading Teacher, XIX (March, 1966), 406-9.

and a teacher of the system met with these classes the remaining four days. The consultant also, on invitation, did demonstration teaching or observed in classes throughout the system. In evening sessions, there were lectures, discussions, and demonstrations. Representatives of various programs were brought in to demonstrate and answer questions. The specialist was responsible for these arrangements, and was careful to see that they were carried on in a noncommercial manner. Texts, machines, instruments, diagnostic tests, and other media were examined and evaluated.¹

Herber feels that a program of full-day seminars and follow-up disseminations brings about more desired change than any after-school course ever can. The teachers have extended periods of time to consider the important aspects of teaching, to work together in developing lessons and materials, to observe one another teach. They do not do this on tired time but when they are fresh.²

The following is the content of a course for teachers about to be involved in a newly organized developmental course in the junior high schools of a small city system:

1. The complex nature of the reading act.
2. The spiral nature of all teaching of reading skills: initial teaching, practice and application, testing, reteaching or teaching at a higher level, spaced review.

¹Ernest Jones, "A Specialist in Workshops, Institutes, and In-Service Programs," Reading Teacher, XX(March, 1967), 515-19.

²H.L. Herber, "In-Service: On Whose Time?", Journal of Reading, XII (November, 1968), 109-14.

3. Procedures for teaching vocabulary.
4. Procedures for teaching each of the main groups of skills and sub-skills: location, organizational, critical, oral, speed.
5. Techniques for demonstrating student progress, so essential to motivation in skills courses.
6. Administration and interpretation of standardized tests.
7. Preparation and use of informal tests.
8. Procedures for adopting to individual differences.
9. Understanding that expectation of progress depends on student capacity, not on grade level.
10. Knowledge of, and criteria for, evaluating published materials for teaching reading skills.
11. Knowledge of, and criteria for, evaluating recreatory reading materials.
12. Procedures for motivating and evaluating broad reading experiences of students.¹

The same article also discussed these aspects of an in-service reading program: personnel; team teaching in in-service work; demonstrations; and other types of in-service training such as a workshop for principals and assignments of classroom teachers as aides in reading clinics or remedial classes.

Robinson and Rauch expanded upon seven in-service programs as follows:

- 1) workshops focused on specific needs; 2) demonstrations performed by a reading consultant, a teacher or university instructor for an individual teacher within her own classroom or for a group of teachers; 3) bulletins containing recent research and experiments as well as announcements of coming events; 4) conferences for maintaining rapport with the teaching staff, discovering needs and offering suggestions; 5) observations and interclass visitation aimed at a particular problem and at determining more effective methods of teaching reading; 6) course work with or without credit to teach

¹Olive Niles, "Systemwide In-Service Programs in Reading," Reading Teacher, XIX (March, 1966), 424-28.

many teachers at one time; and 7) research and experimentation. Provision for a professional library was also suggested.¹

Aaron, Callaway, and Olson suggested different types of in-service programs. They are written survey forms which can be used by the individual teacher, administrator or curriculum director. The forms are questionnaires relating to classroom reading, and teacher evaluation of the overall reading program. Briefly, the forms are as follows:

- Form #1: Instructional Practices in Basal Reading Class.
- Form #2: Teacher Belief and Practices in Teaching of Basal Reading.
- Form #3: Use of Basal Readers and Related Materials.
- Form #4: Evaluation of Program, Materials, Equipment and Practices.
- Form #5: Practices Related to Reading in the Content Area.²

In addition to the survey forms mentioned above, the same authors give a brief description of in-service programs involving an individual school, several neighboring schools, a single system, two adjoining systems, a congressional district, and an entire state. These programs are of some value to the specialized reading teacher as a guide, but are not specific or detailed. Perhaps they were purposely kept general to allow the specialized reading

¹H. Alan Robinson and Sidney Rauch, Guiding the Reading Program, (Chicago: Science Research Associates, Inc., 1965), pp. 50-56.

²Ira E. Aaron, Byron Callaway, and Arthur V. Olson, "Conducting In-Service Programs in Reading," (Newark, Delaware: International Reading Association, 1965), pp. 24-26, as found in Sr. Dorothy Michael Miller, CSJ, "The Role of the Specialized Reading Teacher in In-Service Education," (Unpublished Research Paper, Cardinal Stritch College, 1969), p. 42.

teacher to incorporate the necessary materials and organization needed for his particular situation.¹

The need for two in-service courses was expressed by Durkin. The first course would be a specific study of the possible content of reading instruction and, secondly, of some of the ways this content might be taught. "Its special focus would be an awareness: helping teachers become aware of what might be taught and of how it can be communicated to children."² The second course, open only to faculties that participated in the first one, would emphasize making choices about what to teach and how to teach it. "Guiding the content would be the assumption that effective teaching is directly related to the degree of match between instruction and children."³

Because the total-school approach to developmental reading was a concept which was not clearly understood by many of the teachers at La Fелlette High School at Madison, Wisconsin, an in-service program seemed a necessary first step. The following objectives for the in-service program were established by the reading consultant and the principal:

1. To broaden the teacher's concept of reading instruction to include teaching students to respond to a reading selection with higher-level cognitive and affective behaviors.

¹ Aaron, Callaway, and Olson, "Conducting In-Service Programs in Reading," pp. 32-45, as found in Miller, p. 43.

² Dolores Durkin, "In-Service Education Makes a Difference," ed. by Allen J. Figurel, International Reading Association Conference Proceedings, XII (Newark, Delaware: International Reading Association, 1968), p. 310.

³ Ibid., p. 311.

2. To acquaint the teachers with the limitations of standardized reading tests for measuring higher-level cognitive and affective behaviors.
3. To present the teachers with evidence that high school students who get good grades and who are admitted to colleges are not necessarily mature readers.
4. To give the teachers questions to use to determine ways their own teaching helps students become better readers.
5. To identify specific instructional practices which content area teachers were using to help their students become better readers.¹

Every junior and senior high school in Madison allotted two full days to in-service education each year. At LaFollette High School one-half day was set aside for the in-service program reported in this article. The Reading Director for the Madison Schools joined with the reading consultant and the principal in planning the half-day program. It was decided that the program would be presented in three stages: "1) the presentation of certain background information by the Director of Reading to the entire faculty, 2) a symposium presented to the entire faculty by selected teachers regarding instructional practices they were already incorporating into their content teaching to improve their students' reading, and 3) departmental meetings to discuss informally the implications of the preceding presentations."² The reading consultant identified five teachers who were incor-

¹Richard Smith, Bernice Bragstad, and Karl Hesse, "Teaching Reading in the Content Areas, An In-Service Model," Journal of Reading, XIII (March, 1970), 421-22.

²Ibid., p. 422.

porating good instructional reading practices into their content areas. They were in English, business education, science, social studies, and mathematics departments. It was an easy matter for the reading consultant to help them: 1) understand how they were helping their students to be better readers, 2) improve their methodology for developing students' reading ability, and 3) prepare a short presentation for other content teachers. The Director of Reading introduced the program. He presented reading as a three part process: decoding, comprehending, and utilizing. Following the discussion of the stages of reading, sample questions from standardized reading achievement tests used in the school system were presented for the teachers to study. The point was made that students who score high on standardized reading achievement tests and who are accepted by colleges are not necessarily mature readers. The Reading Director suggested that participants in the in-service program ask themselves the following questions:

1. What is my concept of reading?
2. Do I prepare my students carefully for an assigned reading selection?
3. What kinds of questions do I ask my students about their reading?
4. Am I teaching my students to discriminate between material that warrants careful, thoughtful reading and material which does not?
5. Do I give my students time to read thoughtfully?
6. Do I encourage and reward the reading of non-assigned materials?
7. With what kinds of activities do I involve my students in relation to their reading?¹

¹ Ibid., p. 424.

Following the presentation by the Reading Director, each of the five participating teachers described specific instructional reading practices he was incorporating into his content area classes. After the various presentations, about one and one-half hours remained for all teachers to participate in departmental meetings. The reading personnel visited the various meetings, answered questions, and offered additional information about reading in content areas.

To determine the effect of the inservice program on the teachers who attended, a five-item inventory was presented to them at the conclusion of the program. The teachers were asked to indicate Strongly Agree, Agree, Undecided, Disagree, or Strongly Disagree for each of the items. The responses were weighted five, four, three, two, and one, respectively. Mean scores above three, then, would indicate a positive response to some aspect of the in-service program.¹

Following are the questions which were asked:

1. Because of the inservice program I have changed my concept of the reading process.
2. The presentations gave me a better understanding of the possibilities for including developmental reading instruction in my classes.
3. The presentations gave me a better understanding of the idea of total school approach to developmental reading in a secondary school.
4. I expect to teach my students more about how to read the assigned material than I have in the past.
5. I would like to find out more about how I can help my students be better readers.²

This in-service program was judged to be effective in changing teacher attitudes and imparting knowledge.

¹ Ibid., p. 426

² Ibid.

In formulating the structure of any in-service program, one must always establish goals. Nymann identified intellectual conditions, physical conditions, and psychological conditions for achieving goals. She felt that providing an abundance of food for thought was a proper goal to keep in mind in creating intellectual conditions. Such things as books, pamphlets, journals, resource people, trips, educational products and electronic teaching-learning devices were suggested to provide this food. In providing proper physical conditions, one must strive to provide the time, space, and facilities that will allow teachers to make full use of all available resources. Special work-study areas, listening centers, or viewing rooms might have to be provided. In establishing psychological conditions, several goals should be kept in mind. A first goal in this category was to have teachers feel deeply that they bear major responsibility in improving instruction. A second goal was to help teachers recognize and value their own abilities, and this personal security must be supported by the administrator. Third, the administrator should make it his aim to let teachers know that their individuality is respected to the point of allowing them real freedom in pursuing special interests and in determining the learning experiences which will aid in that pursuit. The fourth and final goal was to promote teachers' satisfaction with

the fact of their learning.¹

Identifying and meeting the in-service needs of reading teachers was a topic discussed by Hill. She felt, "in the final analysis, the success of the in-service program is determined by the attitude of administrators. When they exhibit a willingness to support such efforts a climate for improvement has been created."² She also mentioned:

The SRA Reading Institute Extension service prepared under the direction of Carrillo and composed of eight units which present a suggested plan for a year-long inservice program, devotes the first unit to the evaluation of the present reading program. This unit provides self-appraisal questionnaires and checklists which offer guidelines for evaluating appropriate procedures for improvement.³

Markert discussed in-service programs for large schools, using the Seattle Public Schools as an example. She included aspects of the program such as guides or catalogues of classes, how classes are initiated, course offerings, in-service programs for new teachers, recommendations for in-service work, evaluation and future plans. Under evaluation, the following points were stressed:

¹Janet R. Nymann, "Establishing Goals for An Effective In-Service Program," in Highlights of the 1967 Pre-Convention Institutes, ed. By Paul C. Berg and John E. George (Newark, Delaware: International Reading Association, 1968).

²Nadyne Hill, "Identifying and Meeting In-Service Needs of Reading Teachers," in Highlights of the 1967 Pre-Convention Institutes, ed. By Paul C. Berg and John E. George (Newark, Delaware: International Reading Association, 1968), p. 18.

³Ibid., p. 15.

1. In-service department sends out evaluation forms asking teachers what they thought of classes and suggestions for improvement.
2. Instructors take individual teacher polls to see how needs might be better met.
3. The administrator (principal) evaluates the teacher's work or performance in the classroom after the in-service work.¹

In structuring an in-service course the writer had to formulate certain goals or expectations. In order to keep these realistic, the writer felt it beneficial to review some literature on outcomes or achievements of in-service courses. According to Doherty, the ultimate effects of the Carnegie Project may never be known. The director listed its main achievements as:

1. A heightened interest in using objectives in instructional planning among a large group of teachers, supervisors, and principals.
2. An observable professional growth on the part of more than three hundred teachers who took part in course planning and teaching.
3. An enlargement of the coverage of in-service education to include all teachers in the district.
4. A sharper focus on teaching needs as teachers see them.
5. A tightening of the vigor and quality of school-district sponsored in-service education.
6. A marshalling of resources for in-service education to assist the embattled instructional supervisors.
7. The identification and development of talented teachers, with their implications for improved morale, as well as fuller utilization of resources.²

Kasdon and Kelly also reached some conclusions on an in-service program:

¹Louise Markert, "In-Service Programs in the Large School," in Highlights of the 1967 Pre-Convention Institutes, ed. By Paul C. Berg and John E. George (Newark, Delaware: International Reading Association, 1968), p. 22.

²Victor W. Doherty, "The Carnegie Professional Program: An Experiment in the In-Service Education of Teachers," The Journal of Teacher Education, XVIII (Fall, 1967), 261-68.

1. This study has shown that a pure research design can be used in the evaluation of an in-service program for teachers.
2. It demonstrated the effectiveness of simulation as an in-service technique with one population. The Informal Reading Inventory Instructional Process developed by Beldin, Utsey, and Wallen in "Diagnostic Techniques in Teaching Reading, Part I" (3) and adapted for use in this study appears to be validated as an effective in-service vehicle for experienced teachers, in terms of involvement, adequacy, and transfer to the classroom situation.
3. Part of the folklore among teachers is that primary teachers are more sensitive to the reading needs of pupils than upper grade teachers; however, the findings in this study are somewhat ambiguous on this point. The trend of the data is in the expected direction and the analysis of variance did show a significant difference among grade levels; however, further analysis of these data by use of the Scheffe test did not yield a significant difference between primary and intermediate grade teachers. These results may, in part, be accounted for by the failure of the writers to follow Edwards' advice about shifting the alpha level when using the Scheffe test. Furthermore, such differences, if they do exist, might have been demonstrated statistically if the first- and sixth-grades had been included in this study.
4. Perhaps the most important finding of this study is that for this population of teachers, in-service training must take place before the teachers have developed a set regarding prevailing instructional practices, particularly in making decisions regarding the assignment of reading materials to pupils.¹

The writer felt that Denemark and Mac Danold summarized research on in-service education:

Research on in-service education considered as an integral part of teacher education, was disappointingly scanty. Change in media, materials, curricula, and conceptions of the role of the teacher all suggest the need for more effective continuing education for every teacher.²

¹L.M. Kasdon and D. Kelly, "Simulation: In-Service Education for Teachers of Reading," Journal of Experimental Education, XXXVIII (Fall, 1969), 85.

²George W. Denemark and James B. MacDanold, "Pre-service and Inservice Education of Teachers," Review of Educational Research, XXXVII (June, 1967), 240.

The preceding review of literature on the structure of in-service programs was sufficient for the writer's purpose. Since the structure of the writer's program is original, the review served only as a source of possible ideas to be incorporated into a new program. The writer shares the idea of the structure of in-service programs with Abernathy who stated that "At any level, the pattern of organization should be determined by the common problems of the participants."¹

Reading in Content Areas

In formulating this in-service course, the writer felt it was important to be able to refer the participants to source material dealing with their particular content areas. The writer felt this was important not only because of the information to be gained from the articles but also because the articles served as a motivating source. When the content area teacher sees literature relating his content area to reading, he should realize that there is a connection between the two and this area is being studied by others.

Art

The incorporating of reading into art was the subject

¹Juanita N. Abernathy, "Necessary Components of the Total In-Service Program," in Highlights of the 1967 Pre-Convention Institutes, ed. by Paul C. Berg and John E. George (Newark, Delaware: International Reading Association, 1968), p. 11.

of an article by Erickson. He suggested the following steps:

1. The student indicates the nature and direction of his art activity.
2. Teacher and student confer about the project and co-determine the depth of interest and involvement.
3. Procedures, materials needed, skills to be learned, content to be acquired--all these are discussed in order that the student may begin his project.
4. Reading suggestions are given to the student as the teacher keeps in mind the reading level of the student. Suggestions are made as to where the student may go to find additional relevant reading materials. Often the student ignores the suggestions given and ferrets out his own information sometimes from the family library.¹

When a student indicated he didn't understand, the author listed several alternative choices open to him: 1) He could sit down with the student and read the material with him, explaining the terms he does not understand and clarifying the material verbally to him. 2) He could direct him to simpler material. 3) He could have him read a paragraph at a time and discuss the material with him paragraph by paragraph. Erickson observed the following benefits from this program:

1. Successful experiences with books related to student's compelling interests help to remove psychological blocks to reading.
2. Poor readers are not print orientated; the world of words is not normally their world. But when a teacher guides them to a book on the right level of difficulty and interest, they may spend hours in a world of words. Here they are able to meet and gradually learn new vocabulary and to practice comprehension.

¹Robert D. Erickson, "The Art Room Book Collection," Fusing Reading Skills and Content, ed. by H. Alan Robinson (Newark, Delaware: International Reading Association, 1969), pp. 89-96.

3. Use of the class collection daily builds toward habitual reading. Students are constantly exposed to powerful reading stimuli.
4. An absorbing interest in some aspect of art may help poor readers stretch their reading power and handle reading materials otherwise beyond them.
5. By consulting the collection for techniques and procedures, students are developing the capacity for independent learning--learning how to learn through reading.
6. A student's self-concept determines much of his behavior, including his reading behavior. A young person who views himself as an individual who cannot read tends to fulfill his own expectations. His concept of himself may be altered by experiences of success and approval. A modification produced in art class may result in increased productivity and improved achievement for the student in the broader school situation.¹

Business Education

The problem of reading in bookkeeping and the three elements that combine to aggravate the reading problem in bookkeeping were discussed by Musselman. After discussing these problems, the author gave some suggestions for overcoming them:

1. Apply sound principles of learning to the vocabulary building.
2. Prepare vocabulary lists.
3. Avoid confusion, by being consistent in terminology.
4. Make the bookkeeping class period an instruction period in place of recitation and testing period.
5. Take time to explain to the students how to read and study the textbook.
6. Use study guides as a learning aid and not as a chapter test.²

¹Ibid., pp. 93-4.

²Vernon A. Musselman, "The Reading Problem in Teaching Bookkeeping," Improving Reading in Secondary Schools, ed. by Lawrence E. Hafner (New York: Macmillan Company, 1967), pp. 391-96.

In a brief report Harrison explains the procedures he used to help students in accounting and reports on the success of those procedures.

Two principal procedures were adapted for the class reading sessions. One technique was to have the students read over an assigned problem in class. Then, individual students were called upon to express in their own words the general information given. Next, they were asked to tell in detail the instructions for solving the problem. Finally, students were asked to present a step-by-step procedure for solving the problem without using any figures at all.¹

Therefore, before solving a problem, students were encouraged to spend some time determining the information given, the requirements of the problem, and mentally outlining the steps to be used in solving it.

Incorporating reading into a typewriting class is the subject of an article by Haehn. Areas that can be used for reading purposes, such as: upgrading directions, reading straight copy, and proofreading were discussed.²

English

A book edited by Weiss contained a section dealing with teaching reading in English. The titles of the articles in this section were: "How Can We Help Students Enjoy Literature?" and "What Is a Good Unit in English?"³

¹L.J. Harrison, "Teaching Accounting Students How To Read, in Improving Reading In Secondary Schools, ed. by Lawrence I. Hafner (New York: Macmillan Company, 1967), pp. 397-400.

²Faynelle Haehn, "Let's Have a 'Read-In' in Typewriting," in Fusing Reading Skills and Content, ed. by H. Alan Robinson (Newark, Delaware: International Reading Association, 1969), pp. 69-74.

³M. Jerry Weiss, ed., Reading in the Secondary Schools. (New York: The Odyssey Press, Inc.), 1961.

Bamman, Hogan and Greene feel that the following purposes should be attained through reading literature:

1. Good literature can and should enrich personal living. We are quite definitely, as a society, moving toward a shorter working day and a minimum working week. Never before have young people and adults had so much leisure time. If we believe that the reading of literature can fill personal needs in the individual, then we see it as a more-than-adequate competitor for television, radio, movies, spectator sports, and do-it-yourself hobbies.
2. We read to secure facts about subjects that interest us. Here, the skills of reference are needed-- where to look, how to find it, and what to do with it after we get it.
3. We read to learn how to do something. An examination of popular family magazines demonstrates that editors are quite aware of the mass appeal of the article which informs readers how to decorate a home, plan a garden, cook a tasty dish, or mend a crumbling wall.
4. Much of our reading is directed toward questioning hypotheses. The intellectually curious student finds this type of reading challenging; the dull must be led gently into simpler challenging materials.
5. We read to verify an opinion, to substantiate a fact.
6. We read to gain a general impression: What is this novel about? Does it have appeal for me? Is the author's style familiar, unique, effective?
7. We read to solve a problem. In the area of literature, this so often depends upon the ability of the reader to identify with a character in fiction or history and to learn how that character solved his problems. Young people gain support and solace from reading of the lives of great men and women and discerning that they, too, had problems similar to their own.
8. We read to understand and to gain appreciation for a general theme, an idea, or a principle.

They feel that the teacher's role in the above attainment is that of a guide. The guiding should be done by example and direct teaching. The specialized skills needed in reading each of the following are also discussed: poetry,

the novel, biography, the short story, drama, and the essay.¹

A paper concerned with ways in which we can appraise the success of an English teacher's teaching, and ways to distinguish between real teaching of reading skills and merely providing opportunity to read was written by Niles. One of the characteristics listed of the teacher who is really teaching is that he understands something of the psychology of the reading process. A second difference involves the students' own understanding of what skills they are learning and why. Did the teacher include the essential elements: what to do, why it should be done and how to do it? A third characteristic of good skills teaching was listed as the attention the teacher gives to helping students understand the interrelationships among the skills. A fourth criterion deals with the amount of planned transfer which is present in the teaching. Niles felt it was a matter of developing an attitude among students--an attitude not only of expecting to learn but of expecting to use what is learned. A final characteristic of a teacher teaching reading was said to be dedication to the idea that the school exists, not to cram facts into students' heads, but rather to help them acquire power

¹Henry A. Bamman, Ursula Hogan, and Charles E. Greene, Reading Instruction in the Secondary Schools (New York: David McKay Co., Inc., 1961), pp. 168-186.

to learn for themselves. The above type of teaching is hard to evaluate. It was suggested that one might, by informal observation, evaluate by seeing the power the students have developed to use skills when the practical occasion for using them arises.¹

The Board of Education of the City of New York published a book outlining various skills of reading and ways in which they could be taught in particular content areas. The following skills were listed under language arts: using guide words in a dictionary, using the pronunciation key in a dictionary, understanding the parts of a textbook and using the index of a textbook. The procedure for incorporating the above reading skills into language arts was given in a step-by-step format. Following is the procedure used to teach one of those skills: using guide words in a dictionary.

1. a. Write a word on the board, and direct the students to locate this word in the dictionary as quickly as possible.
 - b. Observe students while they are locating the specific word. Tell them the results of your observation and explain that the dictionary offers additional guides to aid in locating words more quickly.
2. Have students turn to a specific page in the dictionary, and draw their attention to the following points of information: There are two columns of words listed on the page. There are two words located at the top of the page, one over each column. Explain the meanings of entry words and guide words.

¹Olive S. Niles, "Developing Essential Reading Skills in the English Program," in Developing High School Reading Programs, ed. by Mildred A. Dawson (Newark, Delaware: International Reading Association, 1967), pp. 109-110.

3. Through questioning, elicit from students the difference between the type of print used for the entry words and that used for the guide words. Have students suggest reasons for the difference in the type of print.
4. Through questioning, ... have students determine whether or not the guide words are listed elsewhere on the page, and develop with students the following understandings: Where else on the page the guide word over column one is listed. Where else on the page the guide word over column two is listed. What the guide words at the top of the page indicate with regard to all words listed on the page.
5. Have students explain how they use guide words to help them determine whether or not a word is located on a specific page of the dictionary.
6. List specific guide words on the board, and using procedures outlined in steps 4 and 5, give students practice in determining whether or not a group of words, ..., is located on the page with these guide words.
7. Through questioning, ..., have students explain the information they have learned which will help them use a dictionary more efficiently.¹

Also listed in this book was a development, using a specific example, of each of the steps in the given procedure.

The function of a discussion by Marksheffel on teaching reading in English was not to determine or dictate what the English teacher should teach, how he should teach, or why he should teach. The purpose was to help the secondary teacher understand how and why the teaching of reading is a primary function of the total English program, and to help the English teacher to recognize the unique importance of his position for helping each student to improve his reading skills, and to develop a love of reading. Subjects discussed

¹Board of Education of the City of New York, Reading in the Subject Areas, Grades 7-8-9, 1964 (New York: Curriculum Center), pp. 75-76.

in this area were: a reading table--a table in the English classroom on which there are books of all kinds and descriptions; teaching necessary word recognition skills; reading lengthy and difficult selections; influencing factors in reading and learning in English; teaching reading in literature; adjusting goals of literature to student needs and capabilities; teaching reading in the study of drama.¹

The relationship between the emotional tone and the emotional intensity of words and between the spelling and reading difficulty of these words was examined by Bloomer. He found no relationship between emotional tone and spelling difficulty.²

In a book published by the University of Kansas School of Education, the reading skills and habits needed in language arts and illustrative methods and devices a high school language arts teacher may use to improve reading of materials in his class were listed in an outline form. The main headings under the general areas mentioned above were listed under the following general categories:

- A. Utilize sources to locate materials.
- B. Adjust reading speed to the type and difficulty of the materials and to the reading purpose.
- C. Comprehend written material.
- D. Evaluate the material intelligently.
- E. Apply concepts gained from the reading material

¹Ned D. Marksheffel, Better Reading in the Secondary School (New York: The Ronald Press Company, 1966), pp. 162-72.

²Richard H. Bloomer, "Connotative Meaning and the Reading and Spelling Difficulty of Words," Journal of Educational Research, LV (November, 1961), 107-112.

- to confronting situations.
- F. Present written material orally.
 - G. Understand the importance of reading and ways to satisfy intellectual curiosity through reading.
 - H. Make accurate self-evaluation of progress in reading in the language arts.¹

Aaron discussed the development of the basic reading skills through the use of literature and social studies. Areas he discussed were: mastering the special vocabulary, building adequate concept background, reading the specialized materials, drawing conclusions and getting implied meanings, reading critically, understanding time sequence and the relationship of cause and effect, reading maps and globes, reading and enjoying poetry, interpreting figurative language, and learning to enjoy reading.²

Foreign Language

Preston states that a student who studies a foreign language or who must read extensively in foreign language references in connection with his courses often spends large amounts of time in extracting the meaning from a comparatively short passage. He feels that most of these problems can be overcome by:

1. Building a more substantial vocabulary in the

¹Oscar M. Haugh, ed., Teaching Reading in the High School (Lawrence, Kansas: University of Kansas Publications, 1960), pp. 3-10.

²I.E. Aaron, "Developing Reading Competencies Through Social Studies and Literature," in Reading as an Intellectual Activity, ed. by J. Allen Figurel, Proceedings of the International Reading Association, VIII, 1963, pp. 107-110.

- language.
2. Mastering the grammar.
 3. Acquiring the ability to think in the language.¹

Some techniques used for improving reading in English that might apply to developing reading in a foreign language were the subject of an article by Finstein. The roles of readiness, context clues, and study techniques in a French class were discussed.²

Guidance

Inasmuch as the guidance counselor is an important part of the high school, the writer thought it interesting to find an article, by Strang, dealing with the relation of guidance to the teaching of reading. The article describes what the counselor can do to aid reading as well as how the reading specialist can contribute to the guidance program. The following are things the counselor can do:

1. By serving on administrative and policy-making committees he can present the need for:
 - a. A reading consultant or reading teacher.
 - b. A developmental reading program for all students.
 - c. Special help for retarded readers.
 - d. A variety of books and magazines appropriate to the wide range of interests and reading ability represented in the school.
2. He can stimulate, encourage, and assist members of each subject matter department in seeking more effective ways to teach the reading of their subject.
3. If no reading specialist is available, the guidance

¹Ralph C. Preston, "Give the Student Tips on How to Get the Most From Foreign Language Books," in Improving Reading in Secondary Schools, ed. by Lawrence E. Hafner (New York: Macmillan Company, 1967), pp. 401-408.

²Milton Finstein, "Reading Skills and French," in Fusing Reading Skills and Content, ed. by H. Alan Robinson (Newark, Delaware: International Reading Association, 1969) pp. 67-68.

worker who has had training in reading can include a unit on reading and study in the group guidance classes.

4. He can assist in identifying and grouping students who need special instruction in reading.
5. He can work with individual cases in which educational, personal, and vocational problems are associated with reading difficulties.
6. He may cooperate with the librarian in acquiring books that are likely to be useful in the guidance of individuals.
7. When confronted with guidance problems that turn into reading problems, he may refer them to the reading specialist or to a clinic.¹

The following are contributions the reading specialist can make to guidance:

1. Help to forestall guidance problems by improving reading instruction throughout the school.
2. Teach a developmental reading course for all students at a strategic grade level.
3. Meet the needs of severely retarded readers by means of special groups and work with individuals.
4. Establish a reciprocal relationship with guidance workers in the diagnosis and treatment of reading problems.
5. Serve on administrative and policy-making committees to present the need for more effective teaching of reading.
6. Help to create community conditions that are favorable to reading development.
7. Participate in the team approach to reading-guidance problems.²

Strang also pointed out that the preparation of both reading teachers and reading consultants should include one or more courses in guidance. Also, the preparation of teachers and guidance workers should include one or more courses in reading.

¹Ruth Strang, "Relation of Guidance to the Teaching of Reading," Personnel and Guidance Journal, XLIV (April, 1966), 831-36.

²Ibid., p. 835.

Home Economics

The need to acquire a basic vocabulary in cookery should be very apparent to the student. Disappointments may result in any cooking if the words in the directions are not understood. In reading menus, the selection of food may be hampered unless the reader is familiar with such terms as au gratin, a la carte, entree, and crouton. In the area of clothing and textiles, knowledge of the vocabulary is also essential. The student discovers that grain can refer to grain of cloth, grain we eat or the grain of wool. Using a sewing machine also necessitates learning the names and the operation of the many parts. The New York Board of Education feels that various ways have to be used to bring meaning to the specialized vocabulary of home economics. Experience of the students takes care of the more commonly used expressions. Concept building of new words frequently is sought during discussion and instruction periods resulting from conversations at home and from presentations on the television and the radio.

Since demonstrations are used extensively in home economics, a check on students' interpretation and understanding can be accomplished through the use of brief outlines or forms. When a cooking procedure is in progress, students can record the necessary information under headings such as: name of product, list of ingredients and amounts, directions, and any special precautions or hints. During the summary

which follows, each student can check the material carefully to prevent misinformation, or lack of interpretation and omissions. After they are corrected, the forms can be used as work sheets and often show the use of new words acquired in the discussion or through observation. A check list of vocabulary becomes more personal when meanings are given in one's own words. The methods a teacher uses--reading, demonstration, discussion, experimentation, testing, and visual aids,--all help to develop meanings of the highly specialized vocabulary and concepts of home economics. All areas of homemaking education, such as home nursing, care of children, personal and family relationships, home furnishing, care and maintenance of home and equipment, have their own vocabulary to be built up through study and use in practical settings.¹

Bamman, Hogan, and Greene divide reading problems in home economics into two main divisions: (1) the wide variety of reading materials necessary for covering the broad range of homemaking subjects and (2) the special vocabulary necessary for full understanding of those subjects. Narration is a large part of the textbook material in homemaking subjects. Description and informational material may not be difficult for students who have an adequate general reading ability; for the less competent, introductory work may be

¹Board of Education of the City of New York, Reading In The Secondary Schools (New York: Curriculum Center, 1961), pp. 57-58.

necessary before reading the textbook. The introductory work would include a general overview of the subject matter, specific attention to key words, and a few general questions to guide selection of pertinent ideas. Students should be told that some material in the textbook can be read with greater speed and less rereading than other sections of the book. Explanation of the relationship of illustrations, topical headings, italicized or underlined sections, and framed or boxed information should be given to the students. Often it is best to study the first one or two chapters with the entire class. Bamman, Hogan, and Greene also pointed out more specific areas of reading to be stressed in home economics. They stated that any branch of homemaking makes heavy demands on the student to read and follow directions. The first step in reading directions is to skim the material to get a general idea of what is involved in each particular case. A slower, more through reading is next. A rereading may then be necessary to determine if all the instructions have been carried out. Part of the reading of directions will include charts, graphs, and diagrams. Each of these requires a different reading than strictly narrative material. Silent reading, followed by oral reading, discussion, and demonstration will help accuracy in reading. Rapid reading will improve following printed directions when done with the idea of:

1. Discovering, generally, the task to be performed.
2. Determining the ingredients, materials, or utensils needed.

3. Noting the steps to be followed, their exact sequence.
4. Noting any precautions which are stated.¹

The student in homemaking does not only have to read carefully, she must also do critical reading. Students should be given practice in reading advertisements, labels, and brochures to develop this reading skill. Investigation, experimentation, and discussion should follow to check claims. Many students may need a review of word attack skills. Hearing, seeing and using words will contribute to mastery. Picture and context clues should be studied as well as glossaries. The key to pronunciation should be taught, illustrated, and frequently reviewed to give students independence in word recognition.²

In a practical area such as home economics, according to Szymkowicz, reading not only has to be comprehended but has to be followed by action. She worked with her reading consultant and developed three sets of guide lines, mainly for beginning students in home economics. First they produced "Guidelines on How to Read a Sewing Pattern", then "Direct Success with Directions on Package Mixes" and finally "How to Read a Recipe Successfully."³ Szymkowicz discussed the principles behind each of the above selections and their long range values.

¹Bamman, Hogan, and Greene, Reading Instruction in the Secondary Schools, p. 219.

²Ibid., pp. 216-221.

³Dorothy Szymkowicz, "Home Economics and Reading," in Fusing Reading Skills and Content, ed. by H. Alan Robinson (Newark, Delaware: International Reading Association, 1969), pp. 62-64.

Industrial Arts

In an extensive report, Levine identified specific reading problems that occur in vocational subjects. He gave detailed suggestions for helping the student overcome these reading problems and he expressed a definite attitude about the vocational teachers' responsibility for giving this instruction. The following is a summary of the main points of the paper:

1. Vocational students need training in reading trade subjects.
2. The English teacher is willing but unable to provide such reading instruction.
3. The vocabulary, idioms and language of the trades demand special language arts instruction to be provided only by one who is familiar with that trade.
4. Even where language is not a barrier, reading the trade subjects requires application and activity appropriate only to a shop room.
5. The tendency to compel the English teacher to solve such problems will compel us to change our objectives in vocational education.
6. The reading skills taught in the English classroom cannot be used profitably in the trade subjects.
7. A trade text or series of job sheets accumulates a host of concepts which must be mastered to make further reading possible.
8. There are solutions to this problem which are not entirely realistic. [Problem of reading in vocational subjects]
9. Shop teachers should attempt a sample reading lesson in their trade and make such changes in procedure as their experiences dictate.
10. Such reading lessons will have educational prerequisites which will facilitate attainment of our vocational high school objectives.¹

The Board of Education of the City of New York

published a book outlining various skills of reading and techniques for

¹Isidore N. Levine, "Solving Reading Problems in Vocational Subjects," in Improving Reading In Secondary Schools, ed. by Lawrence E. Hafner (New York: Macmillan Company, 1967), p. 328.

teaching them in particular content areas. The following skills were listed under industrial arts: understanding shop vocabulary, multiple meaning of familiar words, and following written directions. The procedure for incorporating the above reading skills into industrial arts was given in a step-by-step format. Following is the procedure used to teach one of these skills: understanding shop vocabulary.

1. Present a completed project to the class, and tell students that this is the project they have selected to make.
2. Tell students that specific tools are needed to make the project. Display the tools needed to carry out the project. Have a name card for each tool and pronounce the name of the tool. Fix the visual association of the actual tool with the oral and printed word on the card.
3. Collect name cards and have students match each name card with its proper tool.
4. Display one tool and through questioning, elicit from students the description and function of this tool, in order to arrive at its definition. Record definition on board or chart. Call on individual students to read the definition orally.
5. Continue as in 4 above to develop the description and function of each tool needed for this project.
6. Reinforce the names of the tools and their functions.
7. Through questioning, review the specific words and their meanings developed in this lesson. Apply the learnings by directing students to chart the vocabulary.¹

Also listed in this book was a development, using a specific example, of each of the steps in the above procedure.

According to Funk, reading plays a vital role in developing competence in the industrial arts. He discussed the nature of this role and how industrial arts teachers can capitalize on what is known about helping students improve

¹Board of Education of the City of New York, Reading In the Subject Areas, Grades 7-8-9, pp. 62-63.

their reading skills. This report questions Funk, supervisor of industrial education for the Los Angeles, California, City Schools on: (1) modern concepts of presenting reading and how they should be incorporated into industrial arts; and (2) how the ten basic skills of reading are presentable in the typical industrial arts program.¹

Bamman, Hogan and Greene feel that reading in the industrial arts is generally not a simple process, despite the fact that directions appear to be concise and well organized. Also many students who register for industrial arts courses are not successful in the academic courses and are seeking an area in which they can succeed. Students are often frustrated when they learn that the industrial arts courses demand reading skills for which they have no preparation. It then becomes the responsibility of the industrial arts teacher to teach the skills of reading required for successful achievement in the shop. The skills which are discussed by Bamman, Hogan, and Greene are: the understanding and knowledge of technical terms; reading and following directions, both in details and in sequence; and reading for further understanding of materials, equipment, and operations.²

¹Gordon Funk, "Reading and Industrial Arts, Interview," in Improving Reading in Secondary Schools, ed. by Lawrence E. Hafner (New York: Macmillan Company, 1967), pp. 302-310.

²Bamman, Hogan, and Greene, Reading Instruction in the Secondary Schools, pp. 200-209.

A list of the reading skills and habits needed in the industrial arts, and illustrative methods and devices a high school industrial arts teacher may use to improve reading of materials in his classes, appears in a book edited by Haugh. The list includes:

- A. Use the vocabulary of the subject
- B. Follow written direction for shop procedure.
- C. Read illustrations and diagrams.
- D. Read the catalogs, journals, and advertisements pertaining to the industrial arts.
- E. Develop skill in reading other special materials.
- F. Do extensive reading in the field.
- G. Develop differentiated reading speeds.
- H. Make accurate self-evaluations of progress in reading in the industrial arts.¹

Responsibilities the content area teacher can assume within the limitations of his time and training were discussed by Frederick. The things he suggested were: 1) The teacher should consider the goals of his instruction. 2) The teacher must determine what are necessary background experiences in order to learn a new concept. 3) Students should be encouraged to use as many and as varied sources as possible to investigate and research. 4) When the reading is accomplished, the student should meet with the teacher-formally or informally-to discuss or resolve the readiness questions and put the answers into some perspective. 5) Apply the new concept or skill to an appropriate situation.²

¹Haugh, ed., Teaching Reading in the High School, pp. 29-30.

²Goston E. Frederick, "Reading and Vocational Education," in Fusing Reading Skills and Content, ed. by M. Alan Robinson (Newark, Delaware: International Reading Association, 1969), pp. 145-150.

Mathematics

Representative studies, according to Earp, show that a knowledge of arithmetic vocabulary is pertinent to achievement in arithmetic, particularly problem solving. He found that reading comprehension and arithmetic achievement tend to be positively related. Almost without exception instruction in vocabulary and/or reading skills in arithmetic were beneficial in terms of greater achievement, especially in the area of problem-solving. With this information, he felt the teacher of mathematics at any level should also be a teacher of reading.¹

According to Aaron, the mathematics teacher has five areas of responsibility in teaching the specialized reading skills and understandings of his subject. They are:

1. The mathematical vocabulary.
2. The concept background necessary for understanding ideas presented in mathematics publications.
3. Ability to select skills and rates appropriate for the materials being read.
4. Proficiency in the special reading tasks of mathematics--reading word problems, equations, charts, graphs, and tables.
5. Skill in the interpretation of mathematical symbols and abbreviations.²

Aaron's article elaborated each of the above points.

Daily, fifteen-minute periods of systematic practice in reading mathematical problems greatly aid progress in the improvement of arithmetical reasoning in problem-solving,

¹N.W. Earp, ed., Reading in the Content Fields (Newark, Delaware: International Reading Association, 1969).

²I.E. Aaron, "Reading in Mathematics," Journal of Reading, VIII (May, 1965), 391.

concluded Champeau. She feels that this and other results point to the fact that a teacher of mathematics must be a reading teacher, giving instruction in the reading of arithmetical vocabulary and in the reading of problems for comprehension and intelligent solution thereof.¹

The New York Board of Education feels that in the study of mathematics, emphasis is placed on reading directions, explanations, problems to be solved, and statements to be proved or disproved. They also list several practices designed to compensate for the difficulty of a mathematics text:

1. Helping students to become familiar with mathematical concepts through having them read comparable lessons in an easier text first, and using the approaches of an easier text in preparatory lessons.
2. Helping students understand the nature of a problem by having individuals invent verbal problems that reflect a common life problem.
3. Aiding students in reading the problems in their regular texts by encouraging the pre-reading of lessons, with questions at points of difficulty and by having a student committee look ahead for trouble spots and clarify the difficulty.
4. Giving effective instruction by having better students tell how they have unraveled a puzzling problem and illustrate their successful methods.²

Reading in mathematics demands care and thought according to Bamman, Hogan, and Greene. They feel that in

¹Helen E. Champeau, "Experimental Study of the Effect of Practice in the Reading of Arithmetic Problems on Arithmetic Achievement of High School Students" (Unpublished Master's Thesis, Cardinal Stritch College, Milwaukee, Wisconsin, 1961).

²Board of Education of the City of New York, Reading in the Secondary Schools, p. 56.

contrast to much of the material the student reads in the secondary school, mathematical material is concise. Mathematics demands critical reading--full understanding of all types of reading accompanied by thinking. In relating mathematics to reading they covered the following areas: introducing the textbook to the students, expectations of students' reading, the importance of vocabulary, handling assignments efficiently, problem analysis, following directions, and formulas in arithmetic and algebra.¹

A book outlining various skills of reading and how they could be taught in particular content areas was published by the New York Board of Education. The following skills were listed under mathematics: understanding multiple meaning of familiar words, understanding mathematics vocabulary, and reading and interpreting problems. The procedure for incorporating the above reading skills into mathematics was given in a step-by-step format. Following is the procedure used to teach one of those skills, reading and interpreting problems:

1. Present a problem on the board or in a text. Have students read the entire problem silently to form a mental picture of the problem as a whole and to find any difficult words contained in the problem.
2. Question to determine the mental picture formed when reading the problem and to clarify the difficult vocabulary.
3. Have problem read orally to make certain that students recognize and understand all words. Then direct students to re-read the problem to sustain the

¹Bamman, Hogan, and Greene, Reading Instruction in the Secondary Schools, pp. 188-197.

- thought and to determine: a. The facts given in the problem. b. The question asked in the problem. Through questioning, elicit from students the facts given and the question asked in the problem.
4. Have students examine the facts given and the question asked in the problem. Question to determine the relationship that exists between the facts given and the question asked.
 5. Question to decide on the arithmetical processes needed to solve the problem.
 6. Indicate the fact that estimating the answer to a problem before actually solving it, is an aid in checking actual answers.
 7. Have students solve the problem and question to check the estimated answers against the correct answers.
 8. Review, and list on board or chart, the guides used in reading and interpreting a problem.
 9. Give students practice in reading and interpreting other problems.¹

Also listed in this book was a development, using a specific example, of each of the steps in the given procedure.

Lerch explains how to teach students the distinct vocabulary for the language of mathematics and its unique form of symbolization. He discussed instructional procedures for increasing reading skills which can be used with the poor reader who suffers with disabling difficulties as well as with the better readers of the language of mathematics. In order for teachers to help students learn to read mathematical materials, they must be concerned with developing mathematical concepts and comprehensive speaking and reading vocabularies of mathematical terms and mathematical signs. Lerch further believed that teachers must also be concerned with helping children in: developing skills in identifying

¹Board of Education of the City of New York, Reading in the Subject Areas, Grades 7-8-9, pp. 57-59.

unfamiliar words; developing speed and fluency in the reading process; grasping the major idea or concept in sentences and paragraphs; reading to find details or facts; following a logical presentation or sequence of ideas, and developing the ability to follow written directions.¹

Changes in mathematics instruction in the elementary and high school were reviewed in an article by Hartung. Several problems to be encountered in the new mathematics were discussed. The writer felt that the article was so interwoven that to cite a portion of it here would not convey the meaning as intended.²

Music

The relation of music to reading was discussed in an article by Uhl. She points out that music develops a child's listening ability and auditory acuity which are essential for a child who is learning to read. Children sometimes forget their dislike for reading and phonics and slip into singing words they would never have attempted to read. In order to sing well one must discriminate between consonant and vowel sounds. The author notes that

¹Harold Lerch, "Improving Reading in the Language of Mathematics-Grades 7-12," in Improving Reading in Secondary Schools, ed. by Lawrence E. Hafner (New York, Macmillan Company, 1967), pp. 344-352.

²Maurica Hartung, "Methods and Materials for Teaching Reading in Mathematics," in Sequential Development of Reading Abilities, ed. by H.M. Robinson, Proceedings of the Annual Conference on Reading, University of Chicago, XXII, 1960, pp. 140-144.

it is virtually impossible to accent a word incorrectly in a well-written song. For many years rote singing was only tolerated as a beginning for very young children and thought of as a forerunner for the more serious note-reading songs, but it now takes on a new importance. The concentration required to learn a song by rote seems to be similar to that required to discriminate the sound of a spoken word. Uhl cited a language arts and reading authority, Martin, who said that most problems in children's reading comprehension are caused from reading with the wrong inflection. Teachers of reading will often say that the best readers in any class are the ones that read the most rhythmically and with the most variance of inflection. These skills are related to singing and to the auditory acuity it develops. This changes thinking about teaching music from song sheets of words without printed scores. It is helpful exercise for a pupil to read the words for the first time and listen for the rhythm and pitch. What better way is there to teach inflection.¹

Bamman, Hogan, and Greene state that the teacher of music should regard as reasonable the statement that the student of music has need for good reading skills and that a responsibility of the teacher is to aid students in developing those reading skills which are pertinent to the study of music in its many phases. Scanning, they write, is one skill which the student of music must develop, and they feel all

¹G.C. Uhl, "Singing Helps Children Learn How to Read," Music Education Journal, LVI (December, 1969), 45-46.

good musicians have developed this skill. When the student examines a piece of music for the first time he scans immediately for key, orchestration or arrangement, shifts in key or time, phrasing, and many other pertinent factors. Vocabulary peculiar to music is often difficult and unfamiliar to the student. Reading for information about the history and development of music is another skill the student should be encouraged to develop. Some who are not able to take part in performing on an instrument or with the voice may develop deep appreciation of music. Reading and discussing musical criticism is another means of aiding the student to develop skills of critical reading and thinking. Some criteria, such as the following, could be suggested by the teacher for judging the validity of criticism:

1. What is the reputation of the particular critic? Is he a recognized authority on music of all types?
2. Does the critic reveal, through the language he uses, his depth of the knowledge of the subject?
3. Does the critic reveal his personal prejudices and biases? For instance, does this critic consistently berate jazz and laud the symphony, no matter how poor the performance of the latter might have been or how superior the performance of the former?
4. Was the criticism general, or was it directed at minor technical details?
5. If you attended the performance, how does your reaction compare to the reactions stated by the critic? Has reading his criticism caused you to alter your opinions?
6. How does this particular critic's appraisal of a performance compare or contrast to the appraisal given by another critic?¹

To develop in students regard for good music as an indispensable part of living, the teacher must foster not only

¹Bamman, Hogan, and Greene, Reading Instruction in the Secondary Schools, pp. 214-215.

development of technical skills but also improvement of the skills of listening, observing, and reading.

Tirro pointed out that adequate texts in music history and music theory are not now available, if we consider readability as a criterion of adequacy. "For an area so univerrally acknowledged to be pleasurable, as music indeed is, it is incredible that texts presenting the heart of the subject can be, in themselves, so painful."¹ The burden of compensating for this deficiency falls on the teacher and the reading consultant. Tirro feels that pretesting can help in analyzing symptoms, predicting and caring for academic problems, and anticipating necessary teaching techniques. He further felt that attention to reading technique as a separate discipline can help to prevent, or at least to minimize, future problems.

Physical and Health Education

Teachers of physical and health education, according to Karlin, might appear to be those least likely to need to help students with textbook and outside readings. However, many of them are enrolling in courses intended for teachers who have never had an undergraduate course in the teaching of reading. Karlin points out that several have become involved with the problem of reading for purely selfish reasons, such as to help students maintain their eligibility

¹Frank Tirro, "Reading Techniques in the Teaching of Music," in Fusing Reading Skills and Content, ed. by H. Alan Robinson (Newark, Delaware: International Reading Association, 1969), p. 107.

for a sport. These same teachers, however, had come to realize that aside from this motivation, that they too must face reading problems as they assign students reading in health and personal hygiene. Problems found in social studies and science books are also found in material prepared for hygiene classes. The same basic outline suggested by Karlin in other content areas can also be applied to the teaching of reading in physical and health education.¹

Science

In order for the teacher of science to help the students read better, it was suggested by Hudgins that the teacher:

- (1) identify the concepts presented in each new lesson,
- (2) structure the learning situation at the concrete and/or representational levels which present the students with a multi-sensory approach to learning, (3) allow for individual differences in reading abilities, and (4) provide the students with a variety of opportunities to demonstrate their understanding of newly-acquired knowledge.²

Additional work done in science and reading was reported by Maurice. She felt that after a basic knowledge of phonics, a child can increase his reading vocabulary at an amazing speed if a teacher capitalizes on these science interests. This work was done in the primary grades but could be applied to higher grades. The science approach

¹Robert Karlin, Teaching Reading in High School (Indianapolis: Bobbs-Merrill, 1964), pp. 240-41.

²W.K. Hudgins and R.E. Reed, "Reading, the Science Teacher's Concern," Science and Children, VII (November 1969), p. 21.

through reading was possible with the use of science reading charts. In a space unit, the vocabulary and thought content of the children was developed line by line as follows:

Chart 1:

On February 26, 1962, John Glenn went into orbit.

His space ship, Friendship 7, made three orbits.

The space capsule is bell-shaped.

It is $6\frac{1}{2}$ feet wide at the base, $9\frac{1}{2}$ feet high.

It weighs 3000 pounds.

John Glenn went 19,500 miles₁ per hour.

That is five miles a second.¹

Flash cards were also used in conjunction with the charts.

Prepositions, adjectives, and adverbs proved to be no obstacle in this approach. The children learned Dolch's 220 Basic Sight Words without needing the usual emphasis on adverbs and verbs.

Shepherd's Handbook gives practical help to science teachers by (1) listing the reading skills that are fundamental for effective reading of scientific materials, (2) suggesting a technique for diagnosing the pupils' proficiency in reading scientific materials, and (3) describing teaching procedure and techniques. An attempt was made to show how the development of reading skills pertinent to science may be fused with the teaching of science data and understandings.²

The idea that textbook reading constitutes the total science program or replaces experimentation and deductive thinking that grows out of discovery is pointed out to be

¹M.C. Maurice, "Orbits in Reading, Science Charts Spur Reading," Catholic School Journal, LXVI (December, 1966), p. 48.

²David Shepherd, Effective Reading in Science-A Handbook for Secondary Teachers (Evanston, Illinois: Row, Peterson and Company, 1960).

incorrect by Karlin. He feels, however, that textbook reading does provide the basis for common understandings and laboratory experience. An outline of a lesson that combined the techniques of reading and science was presented by Karlin to show how a teacher might approach a science textbook. The lesson was based on content found in most general science texts and was offered as a suggestion because two teachers may use different paths within identical framework to reach similar goals. A general outline of the lesson was:

- Lesson: How Airplanes Fly
- I. Readiness for Reading
 - A. Relating experiences of students to content
 - B. Introducing vocabulary and clarifying concepts
 - C. Setting the purpose for reading
 - II. Silent Reading
 - III. Discussion in terms of purposes for reading
 - IV. Rereading for a new purpose
 - V. Application.¹

A simple survey of students' abilities and the textbooks that will be used in the class is helpful in determining what aid should be given to students in their reading in science. A survey of students abilities might include general observation; results of an informal reading test given on paragraphs from science material; a vocabulary test; and other test data, like that from the Iowa Test of Basic Skills. One should review the texts and supplementary materials to become familiar with the important skills and abilities involved. The above procedure should point out

¹Robert Karlin, Teaching Reading in High School, pp. 237-38.

students who have good or fair reading ability but need practice in reading for better retention and more exact meanings; it should also show those who have low reading ability and will require simplified material, frequent reviews and more detailed explanations. Vocabulary is of first importance in science. Practice is needed in developing vocabulary which may be considered peculiar to science. Often studying words in context does not result in adequate understanding. Words must be related to a background of experiences, ideas and interests that may lead students to understanding the concepts. The New York Board of Education also pointed out that comprehension, a general goal of reading, must be continually emphasized for students in science. An example was given in this article of how to incorporate a comprehension check into a science lesson.¹

Banman, Hogan, and Greene feel the rapid changes in the world due to advancement in scientific knowledge and the consequent increasing demand for scientists and technicians are increasing the enrollment in science courses. They also state that no matter how enthusiastic the students may be, unless they can read science material with understanding and with ease they are going to be handicapped in their progress. In relating reading and science they discussed the following topics: demands on science teachers for reading instruction, demands of science reading on the

¹Board of Education of the City of New York, Reading in the Secondary Schools, pp. 49-54.

students, helping students to read science materials efficiently, and steps in carrying out an experiment.¹

The following skills were listed, by the Board of Education of the City of New York, under science: finding definitions of words in the context, reading and interpreting a diagram, following written directions and organizing and classifying facts. The procedure for incorporating the above reading skills into science was given in a step-by-step format. Following is the procedure used to teach one of those skills, reading and interpreting graphic material:

1. Direct students to turn in texts to a specific diagram.
2. Have students read the title or heading of the section of the text that contains the diagram. Question to determine the clue to the meaning of the diagram offered by this title or heading.
3. a. Have students examine the diagram briefly, and through questions, elicit from students the meaning this diagram has for them.
b. Question to elicit the terms and symbols found on the diagram.
4. Review the definition of the various terms developed in previous vocabulary lessons.
5. Have students read the surrounding text that refers to the diagram. Question to elicit additional information related to the diagram.
6. Through questioning, elicit from students the reason the author included the diagram in this part of the text.
7. Review the clues to reading and interpreting a diagram developed in this lesson. List clues on board or place them on a chart for future use. Have students apply the clues to reading another diagram.²

¹ Bamman, Hogan, and Greene, Reading Instruction in the Secondary Schools, pp. 156-166.

² Board of Education of the City of New York, Reading In The Subject Areas, Grades 7-8-9, pp. 41-43.

Also listed in this book was a development, using a specific example, of each of the steps in the given procedure.

Mallinson discussed the two basic aims of studies on the problems of reading in science. He then listed the four major difficulties hampering the development of reading material for science and concluded by explaining what steps are being taken to eliminate these difficulties. He also stated that one of the best criteria for the development of reading skill using science materials is growth of understanding of the science material.¹

Science and Mathematics

Reading of mathematics and science, according to Marksheffel, is an exceedingly difficult task for many students. If students are to improve their learning in mathematics and science, they must first be helped to improve their reading. Learning the specialized vocabularies of mathematics and science requires the assistance of a teacher. Therefore, Marksheffel discussed the following: vocabulary and concepts; techniques for teaching vocabulary; student use of technical terms does not denote meaning; relationship of vocabulary and concepts in science and mathematics; vocabulary and concept development are closely related processes that must be developed simultaneously; techniques

¹George G. Mallinson, "Methods and Materials for Teaching Reading in Science," in Improving Reading in Secondary Schools, ed. by Lawrence E. Hafner (New York: Macmillan Company, 1967), pp. 330-335.

for developing vocabulary and concepts of mathematics and science; the assignment period is the readiness period for learning subject matter; why teachers of mathematics and science must teach reading; learning and using special vocabulary, abbreviations, and symbols.¹

Social Studies

A handbook written by Shepherd, deals with ways in which pupils may be helped to read social studies materials more effectively. An effort was made to give practical help to social studies teachers by (1) listing the reading skills that are fundamental for effective reading of social studies materials, (2) suggesting a technique for diagnosing the pupils' proficiency in reading social studies material, and (3) describing teaching procedures and technique. An attempt was made to show how the development of reading skills pertinent to the social studies may be fused with the teaching of social studies data and understandings.²

Some teachers of social studies follow the unit approach whereby students select topics for which they read extensively in a variety of sources. The basic textbook may be read by all students to secure a common background of the larger area into which the topics fit. Other teachers

¹ Ned Marksheffel, Better Reading in the Secondary School, pp. 152-83.

² David Shepherd, Effective Reading In The Social Studies-A Handbook for Secondary Teachers (Evanston, Illinois: Row, Peterson and Company, 1960).

use the textbook as the main source of information. In either case, according to Karlin, some guidance in textbook reading generally is required.¹ The framework of this guidance may be the same as for science or another content area. An example of this general framework has already been given in the science section of this paper.

One of the major problems in studying social studies is using material which has been read. This is determined largely by purpose for reading and will usually involve some organization and retention of what has been learned through reading. Many reading skills can be used to help organize material, they include:

Listing or summarizing ideas or events; outlining on the basis of various relationships such as time, place, general-specific, main and subordinate ideas; arranging directions in sequential order; classifying information into various categories.
 Selecting and noting relevant information
 Making graphical representation.²

In building skill in study, a vital part of the program is the skill developed in the use of materials. The following are skills which can be developed in social studies and be used to develop better reading: skill in use of the dictionary; skill in handling books; skill in the use of the library; skill in using graphic devices, pictures and pictorial representations.

¹Robert Karlin, Teaching Reading in High School, pp. 237-239.

²Board of Education of the City of New York, Reading in the Secondary Schools, p. 46.

Bamman, Hogan, and Greene feel that the field of social studies requires a greater amount of reading than other subject areas because most of the knowledge of social studies must be acquired vicariously and because the content of social studies is a rapidly expanding one. In relating social studies to reading they discussed such areas as vocabulary, including technical terms, multisyllabic words, abstract words, general terms, mathematical terms and concepts. They also discussed reading and deriving meaning from long and complex sentences; reading important ideas and developing skill for retention of relevant events and developments; locating and evaluating materials including gathering, organizing, and interpreting data, defining and analysing problems with research, utilizing library facilities, reading maps, tables, graphs, charts, and formulas. In relating reading and social studies they also discussed comprehending a sequence of events, simultaneous events, the cause-effect relationships; discriminating between fact and opinion; drawing conclusions and making sound inferences and generalizations; and reading speed.¹

Various skills of reading and how they could be taught in particular content areas were the subjects of a book published by the Board of Education of New York City. The following skills were listed under social studies: recognizing the author's clues to word meaning, determining

¹Bamman, Hogan, and Greene, Reading Instruction in the Secondary Schools, pp. 135-153.

word meaning when no clues are given, multiple meaning of familiar words, main idea of paragraphs--first sentence, main idea of paragraph--other than the first sentence, main idea of paragraphs--inferred, skimming to determine relevancy of content to topic, skimming to answer specific questions, distinguishing fact from opinion, using printing clues to organize a unit of content, reading and interpreting a map, reading and interpreting a graph, and using an encyclopedia. The procedure for incorporating the above reading skills into social studies was given in a step-by-step format. Following is the procedure used to teach one of those skills, recognizing the author's clues to word meaning:

1. List on board or chart the new words found in a specific section of the text.
2. State that texts often include clues which point to new words and their meanings.
3. Have students locate one new word on a specific page of the text. Through questioning, determine from students how they were able to locate the word so quickly.
4. Have pupils read the sentence which contains the new word silently. Through questioning, lead them to discover that the word is clearly defined in the context. Write the definition of the new word on board or chart.
5. Follow the procedures described in steps 3 and 4 above to find contextual clues to the meanings of the remaining words listed on board or chart.
6. Review the new words and their meanings as developed in this lesson.
7. Have pupils recall the two types of clues provided by the author: Clue I--to aid in locating new words quickly. Clue II--to aid in understanding the meanings of new words.¹

Also listed in this book was a development, using a specific

¹Board of Education of the City of New York, Reading in the Subject Areas, Grades 7-8-9, pp. 6-7.

example, of each of the steps in the above procedure.

Because the materials of the social studies are varied, writes Marksheffel, the concepts new or unusual, and the vocabulary highly specialized and different, the social studies teacher must be prepared to help students with reading if they are to grow in knowledge and understanding, develop skills, especially the skills of communication, and acquire positive attitudes. In relating reading and social studies, he discussed the following: the reading of social studies is difficult, factors making some textbooks difficult, arguments for and against using a single textbook, and is using a single textbook a good practice when the student is able to read the material? A brief outline of a directed reading lesson in social studies was presented to illustrate how reading is used in learning subject matter. The general plan could be used in most other content areas. Marksheffel also listed the following teacher practices that contribute to student learning of social studies through reading:

1. Determine the approximate reading ability of each student and provide him with materials at his own reading and learning level.
2. Teach students how to read the textbook.
3. Teach pupils how to set purposes for reading and teach them why it is necessary to set purposes for efficient reading and learning.
4. Help students to learn how to skim or read rapidly those portions of the textbook that are not especially difficult.
5. Help students to understand that certain sections of the text that are difficult require purposeful study-type reading. Study-type material requires active, thoughtful, associative reading that does not permit fantastic skimming rates of thousands of words per minute.

10. Insist that students learn precise rather than getting only a vague general idea of the meaning of words.
11. Use as many visual aids as possible so that students be helped to get meaning from the words that they have read.
12. Recognize that concepts do not spread all at once but are slow in developing and are based on facts, experience, and maturity.

Problems confronting the teacher of social studies were discussed by McNulty. Special emphasis was placed on the text-book in the social studies, purchase of materials as reading sources, the slow reader, and the comprehensive reader. Under text-books in the social studies it was suggested that the wise teacher use several text-books. It was also suggested that the slow reader be used as a source to secure a broad survey of social studies unit, to synthesize a particular unit, to locate certain geographic or historic data, or to purchase of books. It was stated that it is the teacher's responsibility to supplement the social studies text-book.

¹ Ned D. Marksheffel, Better Reading in the Social Studies, School, pp. 181-182.

book purchases of fiction and non-fiction suited to the reading ability of the children and related to the social studies concepts of that grade. Some of the current materials suggested as reading sources were: Life, The National Geographic, Holiday, and Ebony. Also suggested for source material were industries, commercial companies, foreign embassies and newspaper clippings. Specific teaching methods were suggested for dealing with the slow and non-comprehensive reader.¹

After outlining the problems students face with many complex and abstract concepts found in the social studies, Nowell described several classroom procedures the teacher might use to help his students in concept development.²

Summary

The preceding review of literature was made with the intent of providing content area teachers with information on reading in content areas as well as a motivational source. Several content areas were dealt with so that almost any staff member who participates in the in-service course could be referred to literature dealing with reading and his content area.

¹J.D. McAulay, "Social Studies Dependent on Reading," Education, LXXXII (October, 1961), 87-89.

²Lillian Nowell, "Developing Concepts in the Social Sciences," Reading Teacher, XVII (September, 1963), 10-15.

CHAPTER III

PROCEDURE TO BE FOLLOWED

Introduction

This chapter is a class-by-class format of the plan of teaching an in-service course. The course is designed to show content area teachers how they can incorporate reading into their disciplines. The tense used in this chapter is not the past but future, because the chapter deals with the development of a course planned for the future. The course is to cover twelve clock hours. These are to be divided into eight hour and one-half classes. Because the course content will depend upon the participants, only a general format is presented. The general procedure to be followed in the first part of the class is a lecture-discussion on Herber's book.¹ The second part of the class will be used to show content area teachers, by means of lecture, discussion, demonstration, and simulation, methods which they can use to incorporate reading into their content areas. The methods discussed will center around materials

¹Harold Herber, Teaching Reading In The Content Areas. (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1970).

available to the writer in the situation where he intends to teach the course. The writer feels the participants in the course should be made aware of materials available to them, before additional materials are introduced.

First Class

This class will begin with an introduction to the course. Things such as format, length, and dates of sessions will be discussed. An assignment, as the following, will be made at the first class. A possible assignment is to have the participants read an article relating reading to their content area. A bibliography, composed of selections from chapter two of this paper, will be distributed and the members of the class will be able to choose an article from it or find one of their own. The participants will be given a few minutes, depending on class size, of the last class to report on how their article related reading to their discipline.

In order to determine the needs of the participants of the course, a survey sheet will be distributed.¹ The survey is similar to one used by Adams.² The sheet lists various aspects of the teaching of reading. By having the members of the course check areas in which they feel they need help, the instructor will be able to see what areas

¹ Appendix A, p. 78.

² Mary Laurita Adams, "Teachers' Instructional Needs in Teaching Reading," Reading Teacher, xvii (January, 1964), 260-264.

should be stressed in the remaining classes.

The remainder of the first class will be used to give the participants a general overview of important skills of reading. This discussion will be continued into the second class. For convenience, the outline of this overview will be presented with the material of the second class. In discussing this material, a transparency containing an outline of the material will be projected for the group to facilitate comprehension.

A brief outline of the first class is therefore the following:

- I. (20 minutes): Introduction and assignment
- II. (20 minutes): Fill in the survey
- III. (50 minutes): Lecture on skills of reading

Second Class

As mentioned in the format for the first class, the second class will be a continuation of the overview of important areas of reading. For convenience, even though an area was discussed in the first class, a complete outline of the topics to be discussed in the first and second classes follows:

- I. Word Identification
 - A. Use of Picture Clues
 - B. Use of Sight Words
 - C. Use of Context Clues
 - D. Use of Phonics

- E. Use of Structural Analysis
 - F. Introducing New Words
 - G. Evaluation of Achievement in Word Identification
- II. Getting Meanings From Reading
- A. Comprehension is a Blanket Term
 - B. The Thinking Skills in Reading
 - C. What Can Be Expected of Children in the Use of Thinking Processes
 - D. Definition of Terms
 - E. Specific Word Meanings
 - F. Interpretation
 - G. Critical Reading
 - H. Concepts Related to Reading for Meanings
 - I. Evaluation of Achievement in Getting Meanings
- III. Study Skills Needed in Reading Content Subjects
- A. What are Study Skills?
 - B. Research
 - C. Growth Areas in Study Skills
 - D. The Common Study Skills
 - E. Specialized Factors in Reading in Different Subject Areas
- IV. Reading Rate: An Important Growth Area
- A. The Beginning of Interest in Rapid Reading
 - B. The Fallacy of Treating Symptoms
 - C. Research in Reading Rate
 - D. Flexibility in the Use of Rate
 - E. Informal Procedures for Increasing Rates in

the Middle Grades

- F. Systematic Practice in the Middle Grades
- G. Developing Ability to Skim
- H. Evaluation of Growth in Reading Rates

The above idea for grouping the skills came from Smith.¹

The writer realizes that the above material is too lengthy to be covered in a class and a half. The material discussed from the above outline will depend upon the needs of the group.

It is anticipated that discussion of the pertinent reading skills will take the entire second class period.

Third Class

The first portion of the third class will be a lecture-discussion of chapters one and two of Herber's book.² An outline of the topics to be discussed follows:

- I. Instructional Problem
 - A. Vocabulary
 - B. Idea Direction
 - C. Reading Direction
 - D. Problems
 - 1. Students' Competence
 - 2. Curriculum Pressures
 - 3. Content Materials
 - 4. Teacher Education

¹Nila B. Smith, Reading Instruction for Today's Children. (Englewood Cliffs, N.J.: Prentice Hall, Inc., 1963).

²Harold Herber, Teaching Reading In The Content Areas, pp. 1-27.

E. Definitions

1. Reading Through Content
2. Reading
 - a. Decoding
 - b. Interpretation
 - c. Application

II. Instructional Provisions**A. Vocabulary****B. Idea Direction****C. Reading Direction****D. Instructional Provisions**

1. Range of Ability
2. Differences in Learning Rate
3. Transfer and Transformation of Skills
4. Concept Formation and Application
5. Active Student Participation in Learning

E. Instructional Materials

1. Single Texts
2. Multilevel Texts
3. Multiple Texts
4. Analysis of These Approaches
5. Suggested Use of These Categories

F. Objectives

1. Independence
2. Success

The second half of the class will be used to work on specific areas of reading requiring help as indicated by the

survey on the first day of class. An example of an area discussed is that of vocabulary. Two particular areas were chosen for class work: recognizing and understanding shop vocabulary and understanding mathematics vocabulary. A general procedure will be suggested for incorporating the reading skill into both shop and mathematics. A step-by-step development, using specific examples, of the indicated procedures will also be included.¹ The procedure and development are placed next to each other on transparencies,² The class will consist of discussing the transparencies and answering questions as they occur.

If time is left after the discussion of the transparencies, the class will discuss the "Reaction Guides" at the end of chapters one and two.

A brief outline of the third class is:

- I. (60 minutes): Lecture on chapters one and two.
- II. (30 minutes): Lecture, demonstration and discussion on a specific skill in specific content areas.

Fourth Class

The fourth class will consist partly of a lecture-discussion of chapters three and four of Herber's book.³

An outline of the topics to be discussed follows:

¹Board of Education of the City of New York, Reading in the Subject Areas, Grades 7-8-9, pp. 52-53, 62-63.

²Appendix B, p. 84.

³Harold Herber, Teaching Reading in the Content Areas, pp. 28-60.

III. Instructional Framework

- A. Vocabulary**
- B. Idea Direction**
- C. Reading Direction**
- D. Instructional Framework**
 - 1. Preparation**
 - a. Motivation**
 - b. Background Information and Review**
 - c. Anticipation and Purpose**
 - d. Direction**
 - e. Language Development**
 - 2. Guidance**
 - 3. Independence**
- E. Structure Within Lessons**
 - 1. Reaction to Pattern**
 - 2. Attention to Transfer**
 - 3. Modification of Pattern**
- F. Instructional Framework and the Directed Reading Activity**
- G. Benefits**
 - 1. Individualization of Instruction**
 - 2. Grouping**
 - 3. Functional Analysis**
- H. Summary**

IV. Preparation for Instruction

- A. Identification of Major Concepts**
- B. Identification of the Technical Vocabulary**

C. Skills or Processes to be Applied

D. Priorities

The second half of the class is to be used to show and explain some of the material the writer has available in his classroom related to reading in content areas.

The Eye Gate filmstrip and record on "How to Study Science" will be shown and played. Questions that accompany the filmstrip are to be distributed and their possible uses in conjunction with the filmstrip discussed. It will be pointed out that this Eye Gate series of filmstrips includes the following titles: "How to Study a Foreign Language", and "How to Study Mathematics".¹

The material to be discussed next is the Be a Better Reader series.² Topics that will be discussed include purpose of the series, description of the material, readability levels of the series, and which teachers can use these books; all of the previous material is available in the teacher's guide to the series. Copies of the book are to be made available to the class members for their inspection and any questions concerning the book will be discussed.

A brief outline of the fourth class is:

- I. (50 minutes): Lecture on chapters three and four
- II. (40 minutes): Lecture, demonstration, and/or

¹Eye Gate House Filmstrips, Series #7-1, (Jamaica, New York: Eye Gate House, Inc.).

²Nila Banton Smith, Be a Better Reader (Englewood Cliffs, N.J.: Prentice-Hall Inc., 1963).

discussion on materials

- A. (20 minutes): Eye Gate filmstrips
- B. (20 minutes): Be A Better Reader

Fifth Class

A lecture-discussion of chapters five and six of Herber's book will be the first portion of the fifth class.¹

An outline of topics to be discussed is as follows:

V. Levels of Comprehension

- A. Vocabulary
- B. Levels of Comprehension
 - 1. Brief Overview
 - 2. Complete Guidance
- C. Reading Selection
 - 1. What Does Research Tell Us About Study Skills
 - 2. Are Study Skills Learned Without Guidance
 - 3. Discussion of Responses

VI. Patterns, Skills, and Transformation

- A. Review Levels of Comprehension
- B. Organizational Patterns
 - 1. Internal Organization
 - 2. Guiding Students' Use of Organizational Patterns
- C. Reading Guide: Cause and Effect Pattern
- D. Reading Skills

¹Harold Herber, Teaching Reading In The Content Areas, pp. 61-132.

E. Transformation

1. Horizontal Transformation
2. Vertical Transformation

The second half of the class will be used to demonstrate another method of incorporating reading into the content areas. The use of the EDL Study Skills Library is to be explained.¹ This will be accomplished by having the class do the orientation lesson which is normally done by the students. The lesson is an example of the procedures followed throughout the series. A complete guide to working with this orientation lesson is included in the Teacher's Guide to the series. The series covers science and social studies in particular, and reference skills which could be used in almost any discipline. After the orientation lesson is completed, any questions about the series will be discussed.

If any time is left, the "Reaction Guides" at the end of chapters five and six will be discussed.

A brief outline of the fifth class is therefore as follows:

- I. (60 minutes): Lecture-discussion on chapters five and six.
- II. (30 minutes): Demonstration of Study Skills Library

Sixth Class

The first portion of the sixth class will be a

¹H. Alan Robinson, EDL Study Skills Library (Huntington, New York: Educational Development Laboratories, 1962).

lecture-discussion of chapter seven of Herber's book.¹ An outline of topics to be discussed follows:

VII. Reasoning Beyond Reading

- A. Neglected Students
- B. Reasoning Beyond Reading
- C. Creative Reasoning
- D. Heuristic Concepts
- E. Functional Development
- F. Teacher Attitude
- G. Reasoning Guides
 - 1. For Literature
 - 2. For Social Studies
 - 3. For Science

The second half of the class is to be used to demonstrate another method of incorporating reading into the content areas. Techniques for teaching clues to the meaning of new words contained in the text will be discussed by using a specific text used in the writer's school. The text will be one used in health class.² The format of presenting a procedure for teaching the skill and then the specific development, as presented in a book by the Board of Education of the City of New York is to be used.³ A copy of the

¹Harold Herber, Teaching Reading In The Content Areas, pp. 133-149.

²Oliver E. Byrd, and Elizabeth A. Neilson, Health (River Forest, Illinois: Laidlaw Brothers, 1966).

³Board of Education of the City of New York, Reading In The Subject Areas, Grades 7-8-9.

procedure-development format will be handed to all in the class so they can follow along with the presentation. A copy of this presentation entitled, "Understanding Vocabulary in Health", may be found in the Appendix.¹

If any time is left, the "Reaction Guide" at the end of chapter seven will be discussed.

A brief outline of the sixth class is:

- I. (60 minutes): Lecture-discussion of chapter seven.
- II. (30 minutes): Discussion of teaching methods for vocabulary meaning.

Seventh Class

The first portion of the seventh class will be a lecture-discussion of chapter eight of Herber's book.²

An outline of topics to be discussed follows:

- VIII. Technical Vocabulary and Language Development
 - A. Types of vocabulary
 - B. Word Power
 - C. Selection for Emphasis
 1. Key Concepts
 2. Relative Value
 3. Student's Competence
 - D. The Teaching of Vocabulary
 - E. Tools for Independence

¹Appendix C, p. 87.

²Harold Herber, Teaching Reading In The Content Areas, pp. 150-198.

1. Structure
2. Context
3. Dictionary

F. Reinforcement of Vocabulary

G. Exercises on Literal Level

H. Exercises on Interpretive Level

The second half of the class is to be used to demonstrate the incorporation of a particular reading skill into a specific content area, home economics. The skill to be taught is the finding of exact meanings of words when no clues to their meanings appear in the text. Words to be used were taken directly from a text currently being used in seventh grade home economics classes.¹ The method of teaching this class will be to treat the participants as if they are the seventh grade home economics class and the instructor of the in-service class is their teacher. The format of the procedures being taught and the specific development being used may be found in the appendix.² The ideas presented here parallel many found in a publication of the Board of Education of the City of New York.³ A copy of the lesson plan will be given to each participant after the lesson to

¹L. Belle Pollard, Helen H. Laiten, and Frances S. Miller, Experiences In Homemaking (Boston, Massachusetts: Ginn and Company, 1968).

²Appendix D, p. 89.

³Board of Education of the City of New York, Reading In The Subject Areas, Grades 7-8-9.

serve as a review of the techniques used in the presentation.

If any time is left, the "Reaction Guide" at the end of chapter eight will be discussed.

A brief outline of the seventh class is therefore as follows:

- I. (60 minutes): Lecture-discussion of chapter eight
- II. (30 minutes): Simulated class in home economics

Eighth Class

The first portion of the eighth class will be a lecture-discussion of chapter nine of Herber's book.¹ An outline of topics to be discussed follows:

- IX. Individualization, Grouping and Evaluation
 - A. Individualizing Instruction
 - B. Grouping For Instruction
 1. Types of Groups
 2. Composition of Groups
 - C. Styles of Leadership
 - D. Leadership Functions
 - E. Specific Suggestions for Intraclass Grouping
 1. Organization of Groups
 2. Operation of Groups
 3. Teacher's Role in Grouping
 4. Problems in Grouping
 5. Benefits from Grouping

¹Harold Herber, Teaching Reading In The Content Areas, pp. 199-216.

F. Evaluation in Content Areas

1. To What Extent is Evaluation Necessary?
2. How Is Individualized Instruction To Be Evaluated?
3. How Is Individualized Instruction to be Graded?

The second half of the class will be used to have the participants give their reports on the readings assigned the first class. Depending on the size of the class, the reports will take about three minutes each. They will report on some source they found relating reading to their particular content area.

After the reports, the instructor will hand out a course evaluation form asking for comments on good points, bad points, and how the class could be improved. Some of the responses may be discussed in class.

An outline of the eighth and final class follows:

- I. (45 minutes): Lecture-discussion of chapter nine
- II. (30 minutes): Class reports
- III. (15 minutes): Evaluation discussion

Summary

The purpose of this chapter was to present a class-by-class format of an in-service course. The course is to present ideas concerning teaching of reading in the content areas. The course was structured into twelve class hours, divided into eight hour and one-half classes. The class itself

consisted partly of a lecture-discussion of Herber's book and partly of lectures, discussions, demonstrations and simulations of methods of incorporating reading into content areas.

CHAPTER IV

SUMMARY AND CONCLUSIONS

SUMMARY

The purpose of this paper was to write an in-service course. The course was designed to teach the content area teacher how to incorporate reading instruction into his particular discipline. The writer structured the course to fit his particular situation. The course was to last for twelve clock hours. These were divided into eight hour and one-half sessions. The classes were composed partly of a lecture-discussion of Herber's book and partly of lectures, discussions, demonstrations, and simulations dealing with methods of incorporating reading into content areas.¹ The reading concepts that needed particular stress were determined by a questionnaire handed out during the first class.² The participants of the course checked the reading concepts they felt they wanted stressed. The last class, in addition to the lecture-discussion format, was composed

¹Harold Herber, Teaching Reading In The Content Areas.

²Appendix A, pp. 78-80.

of participant's reports on their outside reading. These readings were to relate reading to their discipline areas. Also, during the last class, an evaluation form was distributed asking for bad points, good points, and how the class could be improved. Although the class was structured for the writer's circumstances, the format was general enough to be used as a basic structure for other similar courses in junior and senior high schools.

Conclusions

After doing research and writing this paper, the writer feels the following conclusions can be reached concerning in-service courses dealing with reading in the content areas:

1) More literature could be written relating reading to specific content areas, especially art, business education, foreign language, home economics, music, physical education, and guidance.

2) More literature could be written relating to the school administrators' role in the reading program.

3) In organizing and structuring this type of in-service course, the format can be flexible to meet the needs of each faculty group.

4) There is a need for this type of in-service course at all levels of education.

5) The role of organizing these courses, at the school level, seems logically to be taken by the school's reading specialist.

6) By virtue of the fact that the reading teacher is taking part in this type of program, he is moving into the field of teaching reading in the content areas; this is an expanding role for the reading teacher.

The following are suggestions for additional work in this area:

1) Creation of more materials dealing with definite methods of incorporating reading into content areas.

2) Creation of more in-service courses, similar to the format presented here, altered by individual circumstances.

3) Development of in-service courses relating reading to a particular discipline, such as social studies, or home economics.

4) Definition of the reading teacher's role in the expanding field of reading in the content areas.

As the above suggestions for further study imply, this paper is a very small portion of a large and rapidly proliferating area of reading education.

Appendix A
TEACHER'S JUDGMENTS OF THEIR NEED FOR LEARNING

DIRECTIONS: Check one of the following for each of the items listed: A-of great need; B-of some need; C-of no need, as it is of no interest to me; D-of no need, as I already have good understanding of this.

| | A | B | C | D |
|--|---|---|---|---|
| Nature of the Reading Program: | | | | |
| 1. The breadth of the reading program, including such aspects as fundamental instruction, enjoyment of reading, creative writing, and instruction in reading in the content fields. | | | | |
| 2. The significance of reading as one of the communication skills and its inter-relatedness with the other language arts. | | | | |
| 3. The developmental nature of the reading program, which promotes continuing growth in reading from early introductory activities throughout all of the grades in the elementary and secondary schools. | | | | |
| Readiness and Motivation: | | | | |
| 1. Readiness, both for beginning reading and at all grade levels, with implications for classroom practices. | | | | |
| 2. The factors comprising readiness for beginning reading and the ways to assess this readiness. | | | | |
| 3. Various approaches and activities which can be provided to stimulate children to read. | | | | |
| 4. The nature of motivation and the factors which affect an individual's motivation to read. | | | | |
| Individualization and Ways of Working: | | | | |
| 1. The nature and the extent of the individual differences of children and the effect of these differences on readiness for beginning reading, reading growth, and motivation in reading. | | | | |
| 2. A variety of ways to group children for reading activities to make provision for their individual interests, purposes, and needs. | | | | |

TEACHERS' JUDGMENTS OF THEIR NEED FOR LEARNING (CON'T)

| | A | B | C | D |
|---|---|---|---|---|
| 3. The practices and procedures involved in individualizing reading instruction or in individualized reading. | | | | |
| 4. Ways of working with children in the teaching of reading to make provision for individual differences and needs. | | | | |
| 5. The active, self-directed, individualized nature of the learning process and its implications for reading instruction. | | | | |
| 6. The diagnosis of the reading strengths, weaknesses, problems, and needs of children. | | | | |
| 7. The nature and use of corrective reading instruction and remedial treatment following the diagnosis of reading problems and needs. | | | | |
| Teaching the Reading Skills: | | | | |
| 1. The importance of providing opportunities for children to learn and to use the various reading skills. | | | | |
| 2. The importance of teaching a variety of word recognition skills, the approaches and practices involved, and the relative position of phonics among these skills. | | | | |
| 3. The relationship existing among experiences, meanings, communicating and sharing, comprehension, and vocabulary development. | | | | |
| 4. Critical reading, the importance of teaching comprehension and critical reading on all grade levels, and the practices involved. | | | | |
| 5. The importance of teaching the special skills required for reading in the content fields, and the practices involved. | | | | |
| Materials and Resources: | | | | |
| 1. The values and uses of wide range and variety of readers, library or trade books, reference books, practice materials, audio-visual aids, and other reading materials. | | | | |

TEACHERS' JUDGMENTS OF THEIR NEED FOR LEARNING (CON'T)

| | A | B | C | D |
|--|---|---|---|---|
| 2. Ways of developing and enriching the supply of reading materials available for classroom use. | | | | |
| 3. The values and uses of children's creative writing and of experience charts in the teaching of reading. | | | | |
| 4. The potential contribution of educational television to the reading program. | | | | |
| 5. The importance of making effective use of such reading resources as libraries, diagnostic and remedial clinics, audio-visual centers, and the services of various resource persons. | | | | |
| 6. The nature of controlled vocabulary and readability formulas and the implications of their use for the selection and preparation of reading materials for children. | | | | |
| 7. Ways classroom teachers can improve the physical environment for the teaching of reading and cope with the problems accompanying overcrowded schools. | | | | |
| Evaluation: | | | | |
| 1. The nature and techniques of evaluation, the distinction between evaluation and testing, the self-evaluation of children, and the importance of evaluating all of the goals of reading instruction. | | | | |
| 2. The value of active participation in programs of in-service education in the teaching of reading. | | | | |

RECOGNIZING AND UNDERSTANDING SHOP VOCABULARY, Appendix B

PROBLEM: STUDENTS INDICATE A NEED FOR UNDERSTANDING SPECIAL VOCABULARY IN A WOODWORKING SHOP

REQUIRED SKILL: RECOGNIZING AND UNDERSTANDING THE MEANING OF VOCABULARY.

PROCEDURE

DEVELOPMENT

1. PRESENT A COMPLETED PROJECT TO THE CLASS, AND TELL STUDENTS THAT THIS IS THE PROJECT THEY HAVE SELECTED TO MAKE.

2. TELL STUDENTS THAT SPECIFIC TOOLS ARE NEEDED TO MAKE THE PROJECT. DISPLAY THE TOOLS NEEDED TO CARRY OUT THE PROJECT. HAVE A NAME CARD FOR EACH TOOL AND PRONOUNCE THE NAME OF THE TOOL. FIX THE VISUAL ASSOCIATION OF THE ACTUAL TOOL WITH THE ORAL AND PRINTED WORD ON THE CARD.

3. COLLECT NAME CARDS AND HAVE STUDENTS MATCH NAME CARD WITH ITS PROPER TOOL.

1. PRESENT A BOOKRACK TO STUDENTS. SAY: FOR YOUR NEXT PROJECT, YOU HAVE CHOSEN TO CONSTRUCT THIS BOOK-RACK.

2. SAY: TO MAKE THIS, YOU WILL HAVE TO USE SEVERAL TOOLS. WE WILL DISCUSS THESE TOOLS IN PREPARATION FOR THEIR USE TOOLS NEEDED FOR PROJECT: CHISEL, FILE, RASP, PLANE, TRY SQUARE (ATTACH NAME CARD TO TOOLS)

SAY: STUDY THE NAME CARD ATTACHED TO EACH TOOL (SET TIME LIMIT).

3. SAY: NOW I'M GOING TO GATHER ALL THE NAME CARDS. SEE IF YOU CAN MATCH EACH

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NAME CARD WITH ITS TOOL AS I HOLD UP THE CARD. PLACE THIS NAME CARD NEXT TO THE TOOL IT REPRESENTS.

EXAMPLE: FILE---(tool) FILE
RASP---(tool) RASP, ETC.

4. DISPLAY ONE TOOL AND THROUGH QUESTIONING, ELICIT FROM STUDENTS THE DESCRIPTION AND FUNCTION OF THIS TOOL, IN ORDER TO ARRIVE AT ITS DEFINITION. RECORD DEFINITION ON BOARD OR CHART. CALL ON INDIVIDUALS TO READ THE DEFINITION ORALLY.

5. CONTINUE AS IN 4 ABOVE TO DEVELOP THE DESCRIPTION AND FUNCTION OF EACH TOOL NEEDED FOR THIS PROJECT.

4. Q: HOW WOULD YOU DESCRIBE THIS TOOL? WHAT IS ITS USE?

A: A CHISEL IS A TOOL WITH A STEEL CUTTING EDGE AT THE END OF A STRONG BLADE. IT IS USED TO CUT OR SHAPE WOOD. (WRITE THE DEFINITION ON BOARD OR CHART).

5.a. A FILE IS A STEEL TOOL WITH MANY SMALL RIDGES ON IT, USED TO SMOOTH WOOD.

b. A RASP IS A STEEL TOOL WITH SHARP POINTS THAT FORM A GRATING SURFACE, USED TO RUB AGAINST WOOD.

c. A PLANE IS A TOOL WITH A BLADE, USED FOR SMOOTHING

RECOGNIZING AND UNDERSTANDING SHOP VOCABULARY p.-3

OR LEVELING THE SURFACE
OF WOOD.

- d. A TRY SQUARE IS A TOOL
FOR DRAWING RIGHT ANGLES,
AND FOR TESTING THE SQUARE-
NESS OF ANYTHING.

6. REINFORCE THE NAMES 6.
OF THE TOOLS AND THEIR
FUNCTIONS.

ERASE THE NAMES OF THE TOOLS
FROM THEIR DEFINITIONS ON THE
BOARD. DISPLAY THE NAME CARD
FOR THE RASP.

SAY: MATCH THIS NAME CARD
TO ITS PROPER DEFINITION.

EXAMPLE: A _____ IS A
VERY COARSE FILE WITH SHARP
POINTS THAT FORM A GRATING
SURFACE USED TO RUB AGAINST
WOOD. (AFFIX WORD CARD)
REPEAT ABOVE FOR CHISEL, FILE,
PLANE, TRY SQUARE.

7. THROUGH QUESTIONING, 7a.
REVIEW THE SPECIFIC WORDS
AND THEIR MEANINGS DEVELOPED
IN THIS LESSON. APPLY THE
LEARNINGS BY DIRECTING
STUDENTS TO CHART THE
VOCABULARY.

Q: WHAT TOOLS CONNECTED WITH
MAKING A BOOKSHELF DID YOU LEARN
TO RECOGNIZE TODAY? A: CHISEL,
RASP, ETC.

- b. Q: WHAT DO THESE WORDS MEAN?
A: SEE DEFINITIONS IN STEPS 4
AND 5 ABOVE. CHART: TOOL
DESCRIPTION
USE

UNDERSTANDING MATHEMATICS VOCABULARY, Appendix B

PROBLEM: IN READING AND UNDERSTANDING PRINTED MATERIALS WHICH INVOLVE BANKING AND BUSINESS PRACTICES, THE MEANINGS OF SPECIFIC FAMILIAR WORDS OFTEN NEED CLARIFICATION

REQUIRED SKILL: DEVELOPING THE UNDERSTANDING THAT FAMILIAR WORDS OFTEN HAVE DIFFERENT MEANINGS WHEN USED IN MATHEMATICS CONTEXT. (MULTIPLE MEANINGS OF WORDS.)

| <u>PROCEDURE</u> | <u>DEVELOPMENT</u> |
|--|---|
| <p>1. WRITE A FAMILIAR WORD ON THE BOARD AND THROUGH QUESTIONING, ELICIT FROM STUDENTS DIFFERENT FAMILIAR MEANINGS OF THE WORD. WRITE THEM ON THE BOARD.</p> | <p>1. FAMILIAR WORD: PRINCIPAL FAMILIAR MEANINGS: HEAD OF A SCHOOL, CHIEF, MOST IMPORTANT, ETC.</p> |
| <p>2a. PRESENT THE FAMILIAR WORD IN MATHEMATICS CONTEXT. WRITE THE SENTENCE ON THE BOARD.</p> | <p>2a. WRITE ON BOARD: THE SUM OF MONEY INVESTED IN A COMPANY OR SAVED IN A BANK, NOT COUNTING THE INTEREST, IS CALLED THE <u>PRINCIPAL</u>.</p> |
| <p>b. QUESTION TO DEVELOP AN UNDERSTANDING OF THIS MEANING OF THE FAMILIAR WORD. UNDERLINE THE CLUES TO THE MEANING INCLUDED IN THE SENTENCE. (DEFINITION)</p> | <p>b. Q: DOES THE WORD PRINCIPAL IN THIS SENTENCE HAVE THE SAME MEANING AS ANY LISTED ON THE BOARD? WHY NOT? WHAT DOES IT MEAN? HOW DO YOU KNOW? A: THE WORD PRINCIPAL IN THIS SENTENCE HAS A DIFFERENT MEANING. IT MEANS <u>THE SUM OF MONEY INVESTED OR SAVED, NOT COUNTING THE INTEREST.</u> THE</p> |

PROCEDUREDEVELOPMENT

DEFINITION OF THE WORD IS INCLUDED RIGHT IN THE SENTENCE.
(UNDERLINE THE DEFINITION.)

- | | |
|---|--|
| <p>3. GIVE STUDENTS PRACTICE IN INTERPRETING THE MEANING OF THIS FAMILIAR WORD INCLUDED IN PROBLEMS SIMILAR TO THAT AT THE RIGHT.</p> | <p>3. PROBLEM: MR. SMITH INVESTED \$500 IN A SMALL BUSINESS. HIS INVESTMENT EARNED 6% PER YEAR. HOW MUCH MONEY DID THE <u>PRINCIPAL</u> EARN IN ONE YEAR?</p> |
| <p>4. FOLLOW PROCEDURES 1 THROUGH 3 TO DEVELOP THE DIFFERENT MEANINGS OF OTHER FAMILIAR WORDS WHEN USED IN MATHEMATICS CONTEXT.</p> | <p>4. FAMILIAR WORDS AND MEANINGS: a. CAPITAL--A LETTER DISTINGUISHED FROM A LOWER CASE LETTER, CAPITAL CITY OF A STATE OR COUNTRY, A FORM OF PUNISHMENT. ONE MATHEMATICS MEANING: AMOUNT OF MONEY OR PROPERTY USED IN CARRYING ON A BUSINESS b. VOLUME--A BOOK; IN MUSIC A FULLNESS OF TONE; ETC. ONE MATHEMATICS MEANING: NUMBER OF CUBES CONTAINED IN A SOLID</p> |

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5. LIST ON A CHART (NEWS-
PRINT) THE FAMILIAR
WORDS AND THEIR MATH-
EMATICS MEANINGS DE-
VELOPED IN THIS LESSON
ADD TO THE CHART AS
OTHER MATHEMATICS
VOCABULARY IS DEVELOPED
AND DISPLAY CHART IN
A PROMINENT PLACE IN
THE ROOM.
6. REVIEW THE PURPOSE AND
USE OF THE READING
SKILL DEVELOPED IN THIS
LESSON. APPLY THIS
SKILL TO DETERMINE THE
MATHEMATICS MEANING OF
ADDITIONAL WORDS.
5. CHART:
MATHEMATICS VOCABULARY
PRINCIPAL--SUM OF MONEY IN-
VESTED OR SAVED, NOT
INCLUDING INTEREST
CAPITAL--AMOUNT OF MONEY OR
PROPERTY USED IN CARRYING
ON A BUSINESS.
VOLUME--NUMBER OF CUBES
CONTAINED IN A SOLID.
6. SKILL:
FAMILIAR WORDS OFTEN HAVE
DIFFERENT MEANINGS WHEN
USED IN MATHEMATICS
CONTEXT. a. IT IS
IMPORTANT TO READ CARE-
FULLY TO DETERMINE THE
MEANING OF FAMILIAR WORDS.
b. THE CONTEXT OFTEN
INCLUDES GUIDES TO THE
MEANING OF FAMILIAR WORDS
AS THEY ARE USED IN
MATHEMATICS. ADDITIONAL
WORDS: BASE, SCALE, GROSS,
ETC.

UNDERSTANDING VOCABULARY IN HEALTH, APPENDIX C

Problem: Students fail to recognize that there are clues to the meaning of new words contained in the text.

Required Skill: Finding the meaning of new words when they are clearly explained in the text.

PROCEDURE

- | | |
|---|--|
| <p>1. List on board or chart the new words found in a specific section of the text.</p> | <p>1. Say: In the section of the text devoted to the area of Your Personality and Your Family, the following new words appear: adolescence, criteria, environment, and sublimation. (Write words on board).</p> |
| <p>2. State that texts often include clues which point to new words and their meanings.</p> | <p>2. Say: the author of this book has used several devices to help you determine the meaning of words.</p> |
| <p>3. Have students locate one new word on a specific page of the text. Through questioning, determine from students how they were able to locate the word so quickly.</p> | <p>3. Q: Locate the first word on page 13. What enabled you to locate the word, adolescence, so quickly? A: It was printed in italics. (Clue I)</p> |
| <p>4. Have pupils read the sentence which contains the new word silently. Through questioning, lead them to discover that the word is clearly defined in the context. Write the definition of the new word on board or chart.</p> | <p>4. Say: Read silently the sentence that contains the word adolescence. (Your adolescence is the time between your childhood and your adult years when your personality begins to assume new importance for you.) Q: What does the word adolescence mean? (the period between childhood and adulthood.) How did the author help you to understand the meaning of the word? A: The author included a definition of the word right in the sentence itself. (Clue II)</p> |

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(CON'T., p. 2)

| PROCEDURE | DEVELOPMENT |
|---|---|
| <p>5. Follow the procedures described in steps 3 and 4 above to find contextual clues to the meanings of the remaining words listed on board or chart.</p> | <p>5. A person's mental health may be judged by two criteria, or tests. (definition) It is affected by your environment, or surroundings, and may change from time to time. (definition) This method of releasing strong feeling is called sublimation. (definition)</p> |
| <p>6. Review the new words and their meanings as developed in this lesson.</p> | <p>6. <u>adolescence</u>-the period between childhood and adulthood <u>criteria</u>-rules or standards for evaluating <u>environment</u>-all of the surrounding physical and emotional factors <u>sublimation</u>-substituting a physical activity for another, undesirable activity.</p> |
| <p>7. Have pupils recall the two types of clues provided by the author: Clue I-to aid in locating new words quickly. Clue II-to aid in understanding the meanings of new words.</p> | <p>7. Clue I: New words printed in italics. Clue II: Definitions or synonyms included in the context.</p> |

UNDERSTANDING VOCABULARY IN HOME ECONOMICS, Appendix D

Problem: Students encounter new words in a text that does not contain clues to their meanings.

Required Skill: Finding the exact meanings of words when no clues to their meanings appear in the text.

PROCEDURE

1. Present a sentence in which the new word appears, and through questioning, lead pupils to understanding the following points:
 - a. The sentence does not include contextual clues to the meaning of the new word.
 - b. The dictionary is the best source for finding the meaning of the new word as it is used in the sentence.
 - c. "Key" words in the sentence help in selecting the exact meaning of the word when several meanings are listed in the dictionary.

2. Write the dictionary meanings of the new word on the blackboard or chart and have the pupils select the one appropriate to the sentence and give a reason for their choice. Underline the meaning on the board.

DEVELOPMENT

1. To protect children against other more serious diseases, such as diphtheria, whooping cough, and tetanus, they should be taken to a doctor for inoculations very early in their lives, even as soon as they are a month old.
 - a.Q: Does this sentence help you to understand the meaning of the word inoculations? Why not?
A: The sentence does not contain clues to its exact meaning.
 - b.Q: How can we find the meaning of inoculations as it is used in this sentence?
A: The dictionary is the best source for finding the exact meaning of the word as it is used in this sentence.
 - c.Q: Are there any words in the sentence that might offer us a clue to choosing its exact meaning if several meanings are listed in the dictionary?
A: The words, to protect children, offer a clue to its exact meaning in this sentence.

2. Definitions: The word inoculation means:
 1. To graft by budding.
 2. To introduce an immunizing serum into
 3. To introduce into the mind of, usually with harmful effects.

The second meaning is correct, by its use in the sentence.

UNDERSTANDING VOCABULARY IN HOME ECONOMICS
(CON'T. p. 2)

| PROCEDURE | DEVELOPMENT |
|---|---|
| 3. Reinforce the meaning of the new word by having pupils use it in sentences that explain its meaning. | 3. a. <u>Inoculations</u> were accomplished by injecting serum into the parients. b. The process of introducing an immunizing serum into a subject is called inoculation. |
| 4. Following the procedures in 1,2, and 3 above, have pupils find the exact meanings of other words when no clues appear in the text. | 4. a. An unhappy child may suffer emotional disturbances that will have far-reaching consequences and prevent his full development into a cheerful, well-poised, and happy adult. p. 29 b. There are some examples of <u>compensation</u> , however, that are not admirable. p. 15 |
| 5. Review the meanings of the words as they are used in today's lesson and list them on the blackboard. | 5. a. <u>Inoculation</u> : To introduce an immunizing serum into. <u>Poised</u> : The bearing of the body. <u>Compensation</u> : The act or result of seeking a substitute for something unacceptable or unattainable. |
| 6. Summarize the lesson by highlighting the source for finding the exact meanings of words according to the context in which they are used. | 6. The dictionary is the best source for finding the exact meanings or words when no specific clues to their meanings appear in the context. |

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