Problems of teaching reading in content areas were investigated through interviews with reading teachers, content area teachers, and reading coordinators. Teachers were asked to react to a description of a hypothetical reading problem. Study of interview data showed that reading teachers generally were negative about the degree of concern for reading evidenced by content area teachers and that content area teachers who were successful were concerned about the reading needs of their students and were endeavoring to deal with them. Conclusions from the interview study do not support those of earlier studies. According to interview results there do not seem to be unidentified reading problems in secondary content areas, nor does there seem to be a reaching out of reading teachers to content area teachers. It is suggested that the work which needs to be done is to bring these teachers together, since success depends on their cooperation. (MD)
The principles of applying reading in the content-area classroom have been thoroughly detailed in the literature. In fact the considerable body of literature on this topic over the past fifteen years encourages the concerned observer to assume that there is widespread acceptance of these practices among subject-matter teachers. Normal pursuit of the ideal would then logically dictate a careful investigation of what "special" reading needs content area teachers find associated with their subject matter. That is, what reading problems are so closely related to the content, the subject matter, the classroom itself that only the content teacher, rather than the special reading teacher or consultant, may resolve them?

Not unexpectedly, the literature of reading in the content fields reveals little on these so-called "special" reading needs. Most periodic offerings are expository in nature, outlining or elaborating on the reading practices which may vitalize content-area teaching. Other, more specialized investigations, provide little additional evidence. Emans and Urbas \(^1\), for example, studied the effect on underachievers in English resulting from reduced grammar
and essay writing with increased emphasis on reading instruction. Olsen and
Rosen, on the other hand, conducted a much-needed study of reading practices

Emans, Robert and Raymond Urbas. "Emphasizing Reading Skills in an Eng-

actually applied by content-area teachers. Their survey included 585 junior
and senior high school teachers representing seven content areas who responded
to a check list of twenty practices relative to reading in the content areas.
As reported by Olsen, the study seems to indicate that teachers generally feel

Olsen, Arthur V., "Attitude of High School Content Area Teachers Toward
the Teaching of Reading." (National Reading Conference, Tampa, Nov.30-Dec. 2
1967), ED 015 851.

they are adequately observing recommended principles which apply reading prac-
tice to content teaching. Although the investigators note some apparent con-
tradictions and discrepancies among the respondents, in general as supported
by their sample, subject-matter teachers are aware of and concerned with sound
reading practice.

Neither of these more specialized studies, however, is concerned with
"special" reading needs in content teaching as here defined. Emans and Urbas
focused on underachievers in English, and the content teacher was not solely
responsible for the effort to meet the identified needs. The practices sur-
veyed by Olson and Rosen are those most commonly recommended by reading author-
ities interested in subject-matter problems.

This author, consequently, set out to learn first hand what special prob-
lems might exist and how they are resolved. The most reliable primary source
would appear to be the teachers themselves—both the special remedial and develop-
mental reading teachers and consultants, and content-area teachers alert to the
reading needs of their students. Over a period of several months, the author visited schools and classrooms, observed teaching, discussed the problems of content-area teachers as noted, first, by the specialized reading personnel and, second, by subject-matter teachers themselves. In the process, approximately fifty teachers were consulted, individually and in small groups. The teachers ranged in sophistication from highly competent reading personnel deeply involved with large school systems to relatively inexperienced teachers struggling with subject matter in their early years of teaching. In level, the range extended from the middle grades through the senior high school years. In all instances, however, these were teachers with an avowed interest in reading problems associated with the content areas. Whatever results, conclusions or implications may be drawn from these interviews, they do not speak for the large majority of secondary teachers. The commonality of reading practices among secondary teachers may be adequately represented by the Olson-Rosen survey already cited.

To forestall possible misunderstanding, the following definitions will be accepted throughout the discussion: (a) "specialized reading teachers" are such as devote the majority of their school day to reading instruction as a primary function, i.e., outside the classroom as remedial, corrective or developmental teachers, reading supervisors or consultants; (b) "content-area teachers" are those teachers whose primary responsibility is within the classroom and involved principally with accepted curricular subject matters.

In almost all cases, teachers were asked to respond--either orally or in written form--to the following hypothetical situation.

Marion, age _____, has not been meeting the specific reading needs in ________ (content and level). His test scores, however, indicate that he has no particular reading difficulty which would require referral to
the reading teacher. Rather he shows inability to deal with the unique reading demands of this subject area, this content. It may be that he lacks the experiential background necessary to deal with the concepts, or he is unable to cope with the vocabulary or specialized comprehension skills necessary. At any rate, despite generally satisfactory reading scores, he just cannot read this subject matter adequately.

How would you identify Marion's problem more specifically? How would you, the content teacher, deal with his problem? What techniques, materials, approaches would you make use of to remedy his deficiency within your classroom, without referral elsewhere?

The results of these interviews are surprising and revealing, in some ways depressing and in others quite encouraging. The following remarks contrast opinion and experience as reported by the specialized reading personnel with the evidence of classroom practice observed by the author or as reported to him by content-area teachers.

With few exceptions, specialized reading personnel were largely negative regarding the degree of concern for reading evidenced by content teachers. Not only did these specialized reading personnel fail to identify any significant "special" reading problems in the content areas, they were skeptical of any considerable concern for the ordinary reading problems--those consistently identified as requiring daily classroom attention--by most content-area teachers. These accusations of neglect were directed at all levels of teaching with secondary teachers being the most consistent offenders.

Briefly, in the opinion of the specialized reading personnel interviewed, reading in the content areas is characterized by the following difficulties.

1. Content teachers cannot identify the basic reading skills and seemingly are aware of how these might effect classroom efficiency.

2. Content teachers are not aware of the reading demands of their own subjects, even to the extent of assessing the difficulty of their textbooks; this despite the fact that difficulty level of textual material has been widely
accepted by most subject-matter professionals.

3. Content teachers persist in making assignments without direction or establishing purpose. As one reading teacher claimed, a student came to her for help with the plea, "I was told to read this for tomorrow. Where do I begin?" As another reading teacher remarked, "All the students have to know is [supposedly] on the board."

4. Content teachers continue to emphasize content with extreme reliance on facts, failing to appreciate the kinds of reading habits necessary for or developed by such teaching. In one case familiar to the author, the reading specialist had taken great pains to help a student prepare for a major test and was confident that the student knew the material thoroughly. But the test consisted wholly of facts and details in contrast to teaching procedure and directions which assumed broad understanding of principles.

5. Content teachers fail to provide any specific background in referring students for special reading help. In one case, the reading teacher quoted the content teacher's referral as: "He (a seventh-grade boy) watches too much television, is generally a discipline problem, and just can't read." Although two-thirds of referrals for reading help come from content teachers, the recommendations are usually vague and general.

6. Content teachers are accused of ignoring the other obligations students face during their normal school day; teachers tend to overemphasize the importance of their own subject matter regardless of similar pressures endured by students from other teachers. Special reading teachers do feel that content teachers fail to give students a sense of success or to stimulate intrinsic motivation.

7. Even those content teachers who do come to reading personnel for assistance broach problems which have long been assumed as "standard": how to lecture and take notes; how to use the library; how to use the textbook better.
8. In general, the reading experts in a school or system find it difficult to reach content teachers for cooperative work with students. The two groups cannot even reach agreement on such commonly accepted methods as SQR.

These special reading teachers consistently recommend:

1. The intercession or intervention of the school administration as necessary to bring together content teachers and reading specialists for improved reading in content-area teaching.

2. The use of differentiated instruction to reach the various learning modalities of the students. In one case a freshman student finding difficulty with Shakespeare's *Julius Caesar* developed the skills essential for reading his text after listening to a recording of the play which was provided by the reading teacher.

3. The kind of patience and encouragement which provides the student with a sense of success or at least of acceptance of his own limited reading aptitude.

It is quite possible that these problems are more prevalent in larger systems where special reading personnel are active and where it is simple for content-area teachers to assume that all reading problems are automatically referable to reading personnel and, therefore, not the responsibility of the content teacher.

On the other hand, perhaps the real picture is less pessimistic than the above indictments presume. For, in visiting content-area teachers, the author is convinced that truly responsible and successful subject-matter teachers are concerned with reading problems in their classrooms and are in many cases uniquely meeting them. It is still true, however, that "special" reading needs in content areas are no more successfully identified; the reading problems and
solutions specified by content-area teachers in this narrative are definitely standard. Furthermore, the many teachers visited and interviewed by the author are probably not representative of all content teachers. Primary interest in the search here under discussion was for teachers who had manifested concern for reading as it related to their content needs. Such teachers would already be exercising the standard reading procedures and would be most likely to identify "special" content-area reading needs. So, in spite of the generally optimistic results reported (without total conviction) in the Olsen-Rosen study, there probably exists a considerable "grey" area of content-area teachers not familiar with or not recognizing the normal content reading needs of their students.

For certainly the evidence gathered in this search does reinforce to an extent the findings of Olsen and Rosen. These teachers do recognize the reading problems peculiar to their classes, their subject matter, their content. Specifically:

1. They recognize conceptual and experiential deficiencies.
2. They contend with poor motivation and strive to develop and expand student interest.
3. They differentiate between general and specialized vocabulary needs, and reach for the conceptual understanding beyond mere recognition of the word.
4. They extend outside reading.
5. They differentiate level in order to meet special reading needs.
6. They find time for individual work and seek materials to fit specific needs.
7. They use a variety of media to interest their students.
8. They adapt work, teacher-student expectations, and are deeply sympathetic
to the plight of individual students.

But, as has been stated, they do not seem to recognize or identify the "special" reading problems associated with content. The problems they signalize are those generally substantiated in the literature, such as are usually contested by the practices surveyed in the Olsen-Rosen study. Of interest is the fact that most of these teachers make use of a "master" vocabulary list for their content-area subject; they attempt to group to meet individual differences; and, somewhat strangely, many favor "close" techniques to assess comprehension.

Illustrative of some of the experiences encountered during this survey are the brief cases which follow. None are particularly startling or innovative. On the contrary, they merely represent good-normal, recommended-practice. Nonetheless, it is enlightening to examine them, and their recitation may offset some of the negative views expressed earlier in this paper.

1. This first case illustrates what can be done by an interested and imaginative teacher who has no recourse to reading specialists. She noted one of her sixth graders--in a non-departmentalized classroom--who was having extreme difficulty with all reading tasks. On investigation, she learned that he was a farm boy with few reading incentives in the home (not even a dictionary) and demanding chores to perform. He had been retained in third grade as a remedial student. Her efforts at diagnosis revealed that the boy had forgotten most of his sounds. She undertook intensive work in phonics (using Hay-Wingo), assigned reading from fourth-grade books which he found "comfortable", and employed experience stories to develop interest and practice. The teacher recognizes that the boy still has difficulty with sixth-grade science, geography and history so she continues to use fourth-grade material with him whenever possible.
2. This most heartening experience is best described in the words of the teacher himself.

"Marion, age eleven, reads the words in the social studies text but doesn't comprehend the concepts that are presented. In identifying the problem, I asked him some questions about a series of pages that were assigned. I asked a few specific questions and asked him to locate the answers in the text. This he couldn't do. I helped him find the answers and asked Marion to read the paragraphs aloud. He did this very fluently. After he finished (the pages covered the state of Iowa), Marion asked why farmers grow crops. When asked what people and animals eat, he answered that the only thing an animal ate was grass, and that people got all their food from stores."

"When I discovered that Marion had never been on a farm and had never been out of his own home town except to visit a sick aunt, I visited his home. Marion's mother agreed to allow him to visit my father's farm with me the following Saturday. Marion was very excited that day when we reached the farm. We did many things including taking a load of cattle to a nearby town."

"Since then Marion has read every book he can find on farms because he now understands what he reads."

3. A thirteen-year old boy had constant trouble with geography, attributable both to his own limited environment and to little understanding of life outside his immediate surroundings. To emphasize distance with him, the teacher grouped him with other students of similar difficulty. They were to gather materials for a unit by mail; they located cities, studied maps, found zip codes, and then traced their own letters with colored markers on a map as they traveled to and from the destination. In a somewhat analogous case, a teacher in a remote rural county discovered that his fifth-grade children scarcely knew their own county,
let alone the state history prescribed by the syllabus. So the teacher concentrated on local background thoroughly and at length to develop motivation. He remarked wryly that the students enjoyed and profited from the experience, even if the principal was not particularly happy.

4. For a sixteen-year-old boy, probably nothing is more important than earning his driver's license, which requires textual mastery as well as "behind-the-wheel" competence. The driver-education teacher recognized that this was the only subject which had ever truly interested a particular student. Excellent under road conditions, the boy could not master the text or pass the tests. Consequently the teacher grouped him with boys who read well so that he could gain from listening, rewrote the text in outline form and administered a test based on the simplified material. The boy earned his license; both teacher and student were happy.

5. The bored, non-reading high school boy is a commonplace. In this case, the boy posed daily disciplinary problems, seeking only to get out of school so that he could join the Air Force and fly! Discovering this sole ambition, the senior English teacher gathered a variety of stories on flying to interest the student—"Kitty Hawks," "Lindbergh," Cha'tin' for Fun." As the teacher remarked, nothing miraculous happened but there were some evidences of improvement in attitude. In another situation, an eighth-grade farm boy in English was "hostile to literature". The teacher talked to the boy, learned that he was interested in trapping. The teacher then located books on trapping fur animals for the student. Since then, "I have observed him reading books which he doesn't have to read for book reports...At least he's reading now."

6. Once again, this for tenth-grade geometry, the teacher herself best explains the situation.
Marion has trouble following directions in daily assignments and in tests. However, when asked questions during class discussion he seems to comprehend and answers intelligently. He has had a history of near failure in mathematics classes when the solution of verbal problems was required, but he has had moderate success with computational units. He has average intelligence as shown in test scores, scores much lower on the verbal problem section than on the computational skills.

Fortunately, much geometry can be learned by drawing with straight-edge, compasses, and protractors. Many exercises of this type are assigned so he and others like him can learn some geometric concepts without reading. ... Geometric proofs (impossible for Marion) are assigned to everyone, but most of the proofs are mimeographed and handed to the students the next day. These mimeo proofs have "holes" which students like Marion can fill and hand back the following day. Thus, even though he can not do a long proof on his own, Marion can fill in a few missing ideas and feel some degree of success. He might even catch on to the idea of proof well enough himself to do a short one alone by the end of the year."

The reader will note that the cases generally center around social studies and English, the secondary "reading" subjects. The few science teachers interviewed in this study complained of lack of interest on the part of the students—"they just don't like it!"—and found that students were unable to grasp the conceptual basis of the subject matter. These views agree with the masterful analysis of reading problems in the sciences done by George Mallinson who noted that most difficulties occur in general science, general biology and

general physical science, studies which lead to student discouragement because of the complexity of the subject matter and often-time inferior motivation and aptitude on the part of students.

What then may we conclude from such conflict of opinion and evidence as has been sketched throughout this paper? Where is the truth about reading in the content areas? In the reputable study by Olsen and Rosen, in the rather negative views of reading specialists whose interviews are cited here, or in thrilling evidence from a few cases? Perhaps the truth is still shadowed, still illusive. This author, however, hazards the following opinions—hardly conclusions—from what he has observed:

1. There is remarkably little evidence as represented in this survey that uniquely special, as yet unidentified, reading problems exist in the secondary content areas. No doubt they are there, still to be ferreted out through measures more adequate than interview, consultation and observation.

2. Accepting the integrity of the special reading teachers cited above, it is possible that reading experts are largely talking to themselves, persuading the converted, but still not reaching the mass of secondary subject-matter teachers. Obviously, this opinion is not consistent with the major conclusions of the Olsen-Rosen study.

3. Pleas must continue and new measures discovered to enlist administrative interest in reading problems. As has been cited frequently elsewhere, only the administrators are able to bring the special reading talent of the experts and the special content talent of the classroom teacher together; without trusting cooperation between these sectors, both reading access to and success in the content fields will be negligible.
4. Perhaps eventual success in this endeavor will come only when a set of reading "performance criteria" have been developed for every classroom subject at every level, have been put in the hands of teachers who may be expected to apply them because of their very forthrightness and easy, practical use.