The terms gloss and glossing are being used to designate and describe the systematic use of marginal notes and other extra-text notations to direct readers' attention while they read. Gloss notations may serve as an aid to direct students to content areas of text and to levels of understanding that make optimal use of their current—and sometimes limited—reading ability. Since one purpose for using gloss is to encourage development and application of specific comprehension skills and the “general strategies” that efficient readers use in understanding text, it seems appropriate to use reading materials that are designed to teach reading skills and strategies. Three possible times to introduce gloss activities include (1) the initial stages of reading instruction, (2) the transition from learning reading skills in a reading class to applying them to content area materials, and (3) during remedial instruction. It must be noted that too much gloss may interfere with students' understanding, while too little gloss is likely to have no effect at all on their understanding. Also, the stages of gloss may be primarily reader/text dependent. Ultimately, glossing is both a way to strengthen students' reading comprehension skills and strategies, and a means to provide students with the metacognitive knowledge and insights assumed to underlie the ability to control one's own mental activities. (HOD)
As Otto reported at last year's (1980) meeting of the American Reading Forum, a growing number of people have been working with a technique that involves the systematic use of marginal notes and other extra-text notations to direct readers' attention while they read. The terms "gloss" and "glossing" are being used to designate and describe the technique. As we have said many times, neither the idea nor the term "gloss" is new. Both have been around at least since medieval times, when theologians used gloss to elucidate scriptures. We are attempting to refine the technique by moving toward "systematic" glossing procedures that can be used with confidence, both formally in preparing instructional materials, and informally, in face-to-face teaching in the classroom.

Instead of relying on traditional adjunct aids like questions and advance organizers, we want to be able to direct readers' active attention to places in text where the application of specific skills or strategies would be appropriate, to instances where a particular strategy could be useful for extracting meaning, and to key words and ideas. In other words, we are trying to share mature readers' perceptions of and insights into the reading process with developing readers.

In two papers presented at last year's meeting, Otto described gloss as a two-faceted process that seeks to enhance a reader's ability to deal
with both process and content related matters in seeking to understand printed material. He also pointed out the need to choose specific skills and strategies for development through glossing. In another presentation in the present session, Richgels and Hansen offer guidelines for designing gloss notations and examples of gloss notations for a wide variety of content area text selections.

While the existing papers suggest answers to many questions related to the development of gloss notations, many questions remain. Some of these questions address basic issues related to the day-to-day use of the glossing technique in classrooms. In the remainder of this paper we pose what we believe are some critical questions and suggest some tentative answers.

**Question #1:** Are certain types of reading material more suited for gloss notation than others?

**Content Area Reading Material**

Most of our thinking and effort so far has been directed toward developing gloss for content area text. However, certain realities related to content area reading present problems as well as opportunities for the teacher attempting to use gloss notation. For example, the reading abilities of students in any given content classroom will always vary a great deal. Some students will have extensive reading ability while others may lack even basic reading skills. Likewise, the background knowledge and experiences of students will vary considerably. These and other individual differences in students are factors which content area teachers must cope with daily; but these differences come into focus and demand explicit attention when one prepares gloss notations.
While facts such as these set hurdles for teachers who attempt to use gloss, they also serve to underscore the prospects that gloss offers to teachers. Gloss notation may serve as an aid to direct students to areas of text and to levels of understanding that make optimal use of their current -- and sometimes limited -- reading ability. By directing individual student's attention through gloss notations in text we think that there is prospect of enhancing the understanding and reading ability of the less able student and, at the same time, of challenging the more capable one.

Developmental Reading Materials

In addition to content area text, the material used in a reading class may offer prospects for gloss activities. One purpose for using gloss is to encourage development and application of specific comprehension skills and the "general strategies" that efficient readers use in understanding text. With this purpose in mind, it seems appropriate to use reading materials which are designed to teach reading skills and strategies. Using reading materials in which content knowledge acquisition is relatively less important may allow the teacher preparing gloss to concentrate more on process and not feel that subject matter content is being neglected.

It seems safe to hypothesize that students who are just acquiring reading skills and strategies could benefit from gloss notations which give insight into the appropriate application of the skills and strategies in the reading material they encounter. For example, the brief summaries of stories, purpose setting questions, directions regarding specific use of comprehension skills in the text, and other similar information nor-
mally contained in basal teacher manuals could be rewritten at an appropriate reading level and placed in student books to enhance not only their understanding of the reading skills and strategies that they have been taught but also the content of the material.

Reading skills and strategies that are carefully taught and reinforced with gloss activities in a reading class will not however, automatically transfer to content area texts. As students move into the upper grades, they are faced with materials that have a more distinctive expository writing style, content specific vocabulary, and a host of new concepts. However, the introduction to gloss activities along with the introduction of reading comprehension skills and strategies in the reading class has prospects of shortening the tremendous step that now exists between "learning to read" and "reading to learn".

Material Supplemental to Basic Text

Gloss notations could also be used effectively with the supplemental materials which students are expected to read.

In a content classroom, supplemental materials could be glossed to demonstrate and guide students in the development and application of appropriate reading skills and strategies to be used in reading the text for the class. A teacher might develop lessons using gloss notations on transparencies, handouts and other supplemental reading materials to be used with the class. Students could receive instruction, through the use of the glossed supplemental material, on appropriate ways to read their subject area text.

In a reading class where gloss notations are provided for narrative style reading material, the problems associated with transferring read-
ing skills might be enhanced if expository style supplemental material were also provided. Elementary level weekly newspapers could serve as supplemental reading material to be used with gloss notations. Teachers could also prepare supplemental reading material written in expository style, like content material, yet at a reading level adapted to their students' ability.

In summary, the question of what type of text is best suited for gloss activities appears to be a matter of individual choice. Each of the above types of reading materials pose certain limitations and present certain problems for the teacher who prepares gloss. However, each of the above reading materials used with gloss notations appear to offer prospects for helping students to better comprehend what they are asked to read.

Question #2: At what point in reading instruction should gloss activities be introduced?

The answer to question one will go a long way toward providing insight for answering this question. We will briefly discuss three possible times to introduce gloss activities to students. We believe that gloss has prospects for enhancing children's understanding of text at any of these times.

An introduction to gloss activities could accompany the instruction of beginning reading comprehension skills and strategies. An examination of basal reading programs will reveal that comprehension skill instruction begins early in the first grade. Appropriate types of gloss notations could serve as a means to help young readers better understand the value of certain reading comprehension skills and strategies. Gloss used at
this stage in children's reading development would have objectives more directly related to process than content. The use of gloss activities in the initial stages of reading instruction would be subject to an important condition: That the skills and strategies that are introduced have practical value for beginning readers and that this value be clearly demonstrated. We think that gloss can serve as an effective means to demonstrate the importance of reading skills and strategies to the beginning reader.

Another time to introduce gloss is when students are required to make the transition from learning reading skills in a reading class, to applying them to content-area materials. We feel certain that gloss has great promise for helping students both develop and apply effective reading behaviors in understanding expository text.

Finally, the teacher might introduce gloss to the students who display comprehension difficulties in reading. Such a use of gloss as a remedial strategy might occur when students are using either content-area material or developmental reading material. Gloss used at this time, and in this manner, would be designed to help individual students make the transition from acquiring reading skills to applying them when they read.

**Question #3:** What is the optimal amount of gloss notation for enhancing the understanding of the text?

It has been suggested that gloss notations be prepared for two purposes: (1) to enhance readers' understanding of the specific content at hand, and (2) to shape the development and encourage the application of readers' skills and strategies related to the process of reading.
much gloss is needed to accomplish this? The answer to this question may only be found through carefully planned research studies. The question goes beyond the concern that attention must be given to the amount of time available to read gloss notation and perform accompanying activities. The question relates to the common sense notion that at some point the amount of gloss notation in a text will become an important factor in whether students understand what they are asked to read. Too much gloss may interfere with students understanding, while too little gloss is likely to have no effect at all on their understanding.

It remains to be determined whether the answer to this question will be derived from subjective judgements on the part of teachers using gloss, or from well defined guidelines developed by careful research.

**Question #4:** Should the stages of gloss (demonstration, development, internalization and fading) have both vertical and horizontal aspects?

Otto and associates have envisioned four stages for gloss notations: (1) demonstration, where the intent is to create readers' awareness of approaches to text that help them comprehend and develop their enthusiasm for working with glossed materials; (2) development, where readers are given explanations of how to use skills and strategies, and opportunities to apply them in reading content-area texts; (3) internalization, where readers move toward a level of metacognition, including awareness of (a) when to apply the skills and strategies they have learned, and (b) which of them is most appropriate in a given situation; and (4) fading, where readers are simply reminded to think about their own efforts to understand what they are reading, to think about the skills and strategies
that help them to comprehend, and to correct miscues and misconceptions.

Exactly how students will or should progress through these stages has not been determined. To the present, however, we have been inclined to think of the strategies as "process related": Students move systematically from one stage to the next as they become more familiar with the skills and strategies of the reading process.

However, it may be that the stages would better be thought of as "materials related". Students would progress through each stage acquiring skills and strategies in material of a certain type and difficulty. They would then, to a certain extent, need to repeat the stages as they encounter new text material at a higher difficulty levels.

In other words, the stages may be primarily reader/text dependent. The stages may depend upon students' abilities and experiences relevant to understanding a certain text. Thus, a student might be at the development stage with one type of text which requires certain skills and strategies and at the internalization stage with other text materials requiring different skills and strategies.

Question #5: What should be the goal of gloss notation?

The primary goal of glossing is to help students not only to acquire but also to internalize and apply the skills and strategies that enable them to be independent readers of the full range of material they encounter. To subscribe fully to this goal one must envision a reader who reads, with complete comprehension, everything possible. However, comprehension is an on-going, never ending process, which is pervasive to all reading and to verbal discourse. There can be no precise starting or stopping point from which to judge a reader's "complete" understanding.
Perhaps the ultimate goal of glossing should include an additional aspect: To develop readers who are aware of the factors which contribute to, or interfere with, their understanding of the full range of material they encounter. Such a dual goal would identify glossing both (a) as a way to strengthen students' reading comprehension skills and strategies, and also (b) as a means to provide students with meta-cognitive knowledge and insights assumed to underlie the ability to control one's own mental activities.