The results of an earlier experimental study of the effectiveness of a set of principles for small group instruction in first grade reading groups called for a revision of the list of principles. Revised principles were written for (1) group organization (seating, transitions, starting the lesson); (2) the introduction of lessons and activities (overviews, new words, and work assignments); (3) student participation (asking questions, taking turns, calling on students, and monitoring individuals); (4) teacher questions and student answers (academic focus, word attack questions, waiting for answers, giving needed help, offering explanations); (5) correct student responses (acknowledging correct answers, explaining the answer when necessary, and follow-up questions); and (6) praise and criticism (praise in moderation, correction rather than criticism, and specificity in praise).
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PRINCIPLES OF SMALL-GROUP INSTRUCTION
IN ELEMENTARY READING

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Abstract

Based in part on earlier process-product correlational work, Anderson, Evertson, and Brophy (1979) conducted an experimental study of the effectiveness of a set of principles for small group instruction in the elementary grades, specifically in first grade reading groups. The experiment was generally successful in that experimental groups outperformed an untreated control group on end-of-year tests of reading achievement. However, some principles were not implemented by the teachers, and others were implemented but did not show the expected correlations with reading achievement. Consequently, the results called for revision of the list of principles (retaining those supported by the data but discarding or revising the rest). The revised set of principles is included in the paper.
Revision of First Grade Reading Group Principles

Based, in part, on earlier process-product correlational work, we (Anderson, Evertson, & Brophy, 1979) conducted an experimental study of the effectiveness of a set of principles for small group instruction in the elementary grades, specifically in first grade reading groups. The experiment was generally successful in that experimental groups outperformed an untreated control group on end-of-year tests of reading achievement. However, some principles were not implemented by the teachers, and others were implemented but did not show the expected correlations with reading achievement. Consequently, the results called for revision of the list of principles (retaining those supported by the data but discarding or revising the rest). The revised set of principles follows.

The principles of small group instruction that received support in our study (Anderson et al., 1979) of first-grade reading groups apply specifically to the small group (as opposed to whole class) format; some would be inappropriate for whole class instruction.

1. The original study was supported in part by the National Institute of Education, Contract OE-NIE-8-78-0216, The Research and Development Center for Teacher Education, The University of Texas at Austin.

2. Linda Anderson is an assistant professor of teacher education in the College of Education, Michigan State University and an IRT researcher. Carolyn Evertson is an educational consultant based in VandervOort, Arkansas. Jere Brophy is co-director of the IRT and professor of teacher education and of counseling, educational psychology, and special education.
The principles are presented with first-grade reading groups in mind. Some will not apply, and others will have to be adjusted, for small group instruction in other subjects. Furthermore, as focus shifts from emphasis on word attack and decoding in the early grades to emphasis on reading comprehension in the higher grades, corresponding shifts should occur in principles for lesson pacing and relative emphasis on particular reading subskills or activities.

Finally, the principles are based on data averaged across various types of activities conducted within reading groups observed throughout most of the school year. Application of specific principles will depend on time of year and the specifics of the activity (review of old material, reading practice emphasizing decoding, reading practice emphasizing comprehension, questioning students about word features, questioning students about story comprehension, etc.). General principles underlying the larger set are as follows:

1. Reading groups should be organized for efficient, sustained focus on the content to be learned.

2. All students should be not merely attentive, but actively involved in the lesson.

3. Questions and tasks should be easy enough to enable the teacher to move the lesson along at a brisk pace and the students to experience consistent success.

4. Students should receive frequent opportunities to read and respond to questions, and should get clear feedback about the correctness of their performance.

5. Skills should be mastered to overlearning, with new ones gradually phased in while old ones are being mastered.

6. Although instruction takes place in the group setting for efficiency reasons, the teacher monitors the progress of each individual student and provides whatever specific instruction, feedback or opportunities to practice that each student requires.
Specific principles are as follows.

**Continuous Student Progress**

1. **Time.** Across the year, reading groups should average 25-30 minutes each. The length will depend on student attention level, which in turn will vary with time of year, student ability level, and the skills being taught.

2. **Academic focus.** Successful reading group instruction assumes effective classroom management. This includes not only organization and management of the reading group itself (discussed below), but effective management of the other students (not in the reading group) who are working independently. The teacher should not have to interrupt the reading group to deal with these other students. It will be necessary to provide these students with appropriate assignments that will allow them to occupy their time profitably while their classmates are in reading group; rules and routines to follow when they need help or information (to minimize their needs to interrupt you as you work with your reading group); and activity options available when they finish their work assignments (so they have something else to do).

3. **Pace.** Both progress through the curriculum and pacing within specific activities should be brisk, producing continuous progress, which nonetheless is achieved with relative ease (small steps, high success rate). The optimal pacing rate will vary with the ability levels and prior learning of the students.

4. **Error rate.** Expect to get correct answers to about 80% of your questions in reading groups. If you do, you probably will
be presenting tasks of appropriate difficulty level (so that progress can be made in small steps with minimal error), and providing sufficient repetitions to "firm up" the students and allow them to reach overlearning.

However, error rates will differ according to the materials and the task. When students are practicing skills they should have already learned (as in reviews), their responses should be rapid, smooth, and almost completely correct (perhaps 95% correct). Material should not be considered mastered until students reach this level of smooth, rapid correct performance. Nor should easy comprehension be expected until smooth word recognition is achieved. Some students will need a great deal of practice on these skills.

More errors can be expected when students are working on new skills (perhaps 20-30%). When these errors do occur, apply the principles for giving feedback to student response failures and incorrect answers. Continue with practice and review until smooth, rapid, correct performance is achieved.

Organizing the Group

5. **Seating.** Arrange the classroom and the reading group area so that you can see as many students as possible while conducting small group instruction. Sit so that you can both work with the reading group and monitor the rest of the class at the same time.

6. **Transitions.** Minimize the time spent organizing reading groups or conducting transitions between groups. Teach the students to respond immediately to a signal to move into the reading
group, and to make quick, orderly transitions from other activities into the reading group. Establish routines so that students know what is expected of them during transitions.

7. **Getting started.** Start lessons quickly once the students are in the reading group (any needed materials should have been prepared beforehand). More time will be available for instruction if students are taught to assemble in the group quickly (bringing books or other necessary materials), and to be ready to start the lesson quickly once the group is assembled.

**Introducing Lessons and Activities**

8. **Overviews.** Begin each lesson with an overview to provide students with a mental set and help them anticipate what they will be learning. The content of the overview will vary with the purpose of the lesson and the needs and interests of the students. Typically, however, the overview will include specific information about what will happen during the lesson.

9. **New words.** When presenting new words, do not merely say the word and move on. Usually, it will be appropriate to show the word to the students and to offer phonetic clues to help them to decode it.

10. **Work assignments.** Be sure that students know what to do and how to do it. Before releasing them to work on activities independently, have them demonstrate how they will accomplish the activity. This is especially important with lower achieving students and whenever your explanations have been detailed and possibly confusing.
**Insuring Everyone's Participation**

11. **Ask questions.** In addition to having the students read, ask them questions about the words and the materials. This will help keep students attentive during their classmates' reading turns, and will allow you to call their attention to key concepts or meanings.

Reading groups in which the teacher instructed the students and questioned them to provide practice and assess mastery (in addition to listening to them read) were more effective than reading groups devoted almost entirely to oral reading.

12. **Ordered turns.** Use a system, such as going in order around the group, to select students for reading or answering questions. This insures that all students have opportunities to practice and participate, and it also simplifies group management by eliminating handwaving and other student attempts to get you to call on them. In contrast, if you rely on volunteers or allow students to call out answers, you invite management problems and allow certain students to get many more opportunities to participate than others.

**NOTE:** This principle in particular would be inappropriate for whole class instruction in most situations. When working with the whole class, it is usually more efficient to call on volunteers or to select certain students to respond to questions rather than to attempt to provide everyone with systematic turns.

13. **Minimize call outs.** In general, minimize student call-outs so that you can distribute response opportunities according to
need. Emphasize to the students that each should await his or her turn and respect the turns of others.

Occasionally, you may want to allow call-outs to encourage interest or pick up the pace, especially with lower achieving students or students who do not normally volunteer responses. If so, give clear instructions or devise a signal that will indicate to students that you intend to allow call-outs. At other times, however, call-outs should be discouraged.

14. **Monitor individuals.** When new words or sounds are taught, or older material is reviewed, be sure that everyone, but especially slower students, is checked, receives feedback, and achieves mastery. Ordinarily this will require systematic questioning of each individual student, and not reliance on choral responses or group call-outs. (Unless specially trained to respond instantly to a signal, some students delay responding until they hear what other group members are saying, and some do not respond at all. These students probably have not mastered the content, but their teachers will not discover this unless they monitor them individually).

**Teacher Questions and Student Answers.**

15. **Academic focus.** Concentrate your questions on the academic content; do not overdo questions about personal experiences. Most questions should be about word recognition or sentence or story comprehension.

16. **Word attack questions.** Include questions that focus on word attack skills in addition to comprehension questions. Word
attack questions require students to decode words or identify sounds within words. Such practice in decoding is necessary in the elementary grades, where students are still learning rapid word recognition.

17. *Wait for answers.* In general, wait for an answer or provide helpful feedback as long as you believe that the student is still thinking about the question and may be able to respond. However, do not continue waiting if the student seems lost or is becoming embarrassed, or if you are losing the other students' attention.

18. *Give needed help.* If you think the student cannot respond without help but may be able to reason out the correct answer if you do help, provide help by simplifying the question, rephrasing the question, or giving clues.

19. *Give the answer when necessary.* When the student is unable to respond, give the answer or call on another student to provide it. In general, focus the attention of the group on the answer, and not on the failure to respond. If you believe that onlookers have not heard the correct answer or do not realize that answer is correct, focus their attention and make sure that they do understand the correct answer.

20. *Explain the answer when necessary.* If the question is a purely factual one for which the answer must simply be memorized, just give the answer. However, if the question allows one to develop a response by applying a chain of reasoning or a step-by-step problem solving approach, give process feedback in addition
to the answer itself. That is, explain the steps one goes through to arrive at the answer.

When the Student Responds Correctly

21. Acknowledge correctness (unless it is obvious). Generally, you should briefly acknowledge the correctness of responses (nod positively, repeat the answer, say "right," etc.). However, to save time and maintain focus on the content, you may be able to omit direct acknowledgement and proceed to the next question when it is obvious to the students that their answers are correct. This is especially likely during fast paced drills reviewing old material.

22. Explain the answer when necessary. Even when the student has responded correctly to the question, feedback that emphasizes the processes involved in solving problems, the steps in sequences, or the methods used to get an answer will be appropriate much of the time. Some of the onlookers may need this information to understand why the answer is correct.

23. Follow up questions. Occasionally, you may want to follow up the initial question with one or more additional ones addressed to the same student. Such series of related questions can help the student to integrate relevant information. Or, you may want to extend a line of questioning to its logical conclusion.

Praise and Criticism

Successful teachers concentrate more on providing feedback about the correctness of responses than on praising or criticizing the
the respondent. The idea here is to keep the lesson moving at a brisk pace, and also to keep the students' attention focused on the academic content, not on their successes or failures, or on how the teacher feels about them.

24. **Praise in moderation.** In general, praise should be used in moderation (no more than perhaps 10% of correct responses should be praised). Frequent praise, especially nonspecific praise, is probably less useful than more informative feedback.

25. **Specify what is praised.** When praise is used, it may be important to specify what is being praised. Often this will be obvious to the student and the onlookers, but if it is not, be sure to indicate specifically what you are praising rather than merely communicating that you are pleased about something.

26. **Correction, not criticism.** Students should be informed routinely when they respond incorrectly, but in ways that focus on academic content and include corrective feedback. When it is necessary to criticize (typically only about 1% of the times when students fail to respond correctly), be as specific as possible about what is being criticized and about desired alternative behaviors. In general, concentrate on preventing misbehavior by supplying enough appropriate work and by consistently enforcing expectations in clear, informative ways, and not by relying on criticism or threats of punishment.
Reference