

 BEFORE YOU READ . . .

The purpose of this chapter is to discuss several research-based instructional strategies that are effective in promoting student achievement. Several methods and strategies are described below.

Effective instruction includes direct instruction teaching approaches that emphasize teacher control over classroom events, including lesson presentation.

Effective instruction, from a direct instruction approach, consists of several parts, including statement of the objective(s), review of the prerequisites, presentation of the material, solicitation of student responses through guided and independent practice, assessment of performance, and distributed practice.

Effective instruction, from a direct instruction approach, has advantages and disadvantages when compared with other instructional methods.

Effective instruction methods help students learn and transfer concepts.

Effective instruction makes use of whole-group and small-group discussion strategies.

CHAPTER OUTLINE

WHAT IS DIRECT INSTRUCTION?

HOW IS A DIRECT INSTRUCTION LESSON TAUGHT?

- A. State Learning Objectives
- B. Orient Students to the Lesson
- C. Review Prerequisites
- D. Present New Material
- E. Conduct Learning Probes
- F. Provide Independent Practice
- G. Assess Performance and Provide Feedback
- H. Provide Distributed Practice and Review

WHAT DOES RESEARCH ON DIRECT INSTRUCTION METHODS SUGGEST?

- A. Advantages and Limitations of Direct Instruction

HOW DO STUDENTS LEARN AND TRANSFER CONCEPTS?

- A. Concept Learning and Teaching
- B. Teaching for Transfer of Learning

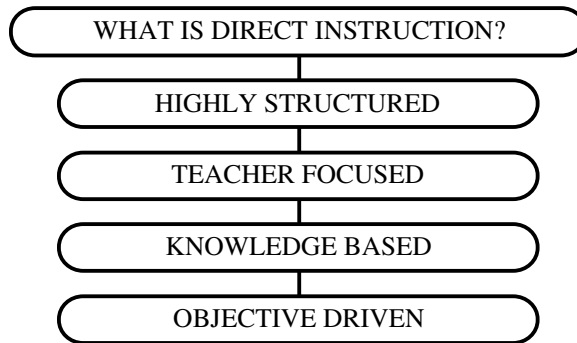
HOW ARE DISCUSSIONS USED IN INSTRUCTION?

- A. Subjective and Controversial Topics
- B. Difficult and Novel Concepts
- C. Affective Objectives
- D. Whole-Class Discussion
- E. Small-Group Discussion

 AS YOU READ . . .

WHAT IS DIRECT INSTRUCTION?

Direct instruction is characterized by several key attributes. The diagram below will help you remember these attributes.



1. List the sequence of steps that characterize a direct instruction lesson.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____

HOW IS A DIRECT INSTRUCTION LESSON TAUGHT?

2. What is the purpose of each step in a direct instruction model? List strategies and provide examples for each of the seven steps.

Steps in a Direct Instruction Lesson	Strategies	Examples
1.		
2.		
3.		
4.		
5.		
6.		
7.		

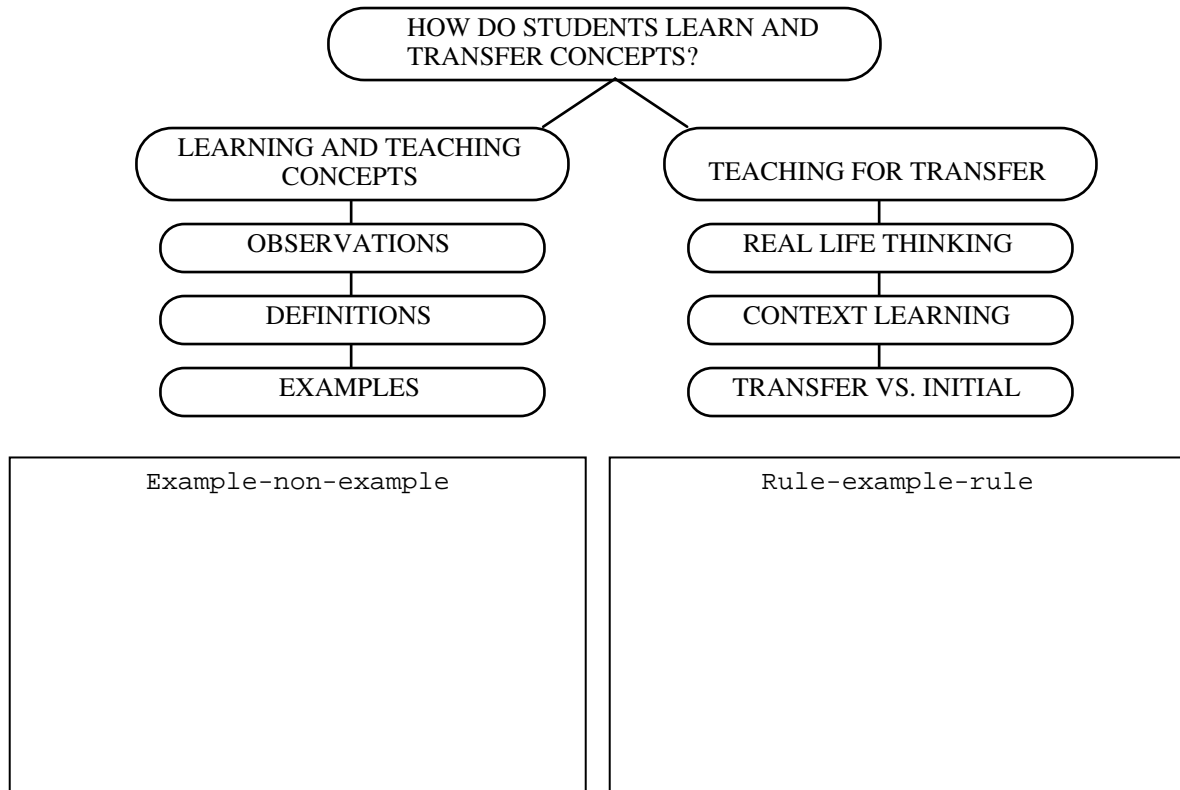
WHAT DOES RESEARCH ON DIRECT INSTRUCTION METHODS SUGGEST?

3. Three variants of direct instruction are identified in the table below. What does research suggest about the effectiveness of each? Record your answers in the boxes below each program or model.

HUNTER MASTERY PROGRAM	MISSOURI MATH PROGRAM	SYSTEMATIC INSTRUCTION MODELS (e.g., DISTAR)

HOW DO STUDENTS LEARN AND TRANSFER CONCEPTS?

4. Describe how you would teach your students using a **rule-example-rule** approach and an **example and non-example** approach. The diagram below will help you think about your examples.



HOW ARE DISCUSSIONS USED IN INSTRUCTION?

5. Complete the two-column chart comparing whole-class discussion and small-group discussion. Use the following categories for your chart: appropriate uses, prerequisites, benefits, and limitations.

	WHOLE-CLASS DISCUSSION	SMALL-GROUP DISCUSSION
appropriate uses		
prerequisites		
benefits		
limitations		

SELF-CHECK

DIRECTIONS: Below are questions related to the main ideas presented in the chapter. Correct answers or typical responses can be found at the end of the study guide chapter.

1. Which of the following strategies does not belong in a direct instruction lesson?

- A. Provide immediate feedback.
- B. Allow students to control the learning activities.
- C. Set clear and meaningful goals.
- D. Monitor student progress.

2. The seven steps in a direct instruction lesson are listed below in alphabetical order. Rearrange the steps in the proper order.

- A. Assess performance and provide feedback.
- B. Conduct learning probes.
- C. Present new material.
- D. Provide distributed practice and review.
- E. Provide independent practice.
- F. Review prerequisites.
- G. State learning objects and orient students to lesson.

3. Teacher demonstrations take place during which step of a direct instruction lesson?

- A. Present new material.
- B. Provide independent practice.
- C. Assess performance.
- D. Review prerequisites.

4. List three strategies that make independent practice time effective.

- 1.
- 2.
- 3.

5. Direct instruction methods work best in all of the following contexts except

- A. teaching basic skills.
- B. elementary reading.
- C. teaching low achievers.
- D. teaching critical thinking skills.

6. List several advantages and several limitations of direct instruction.

ADVANTAGES

LIMITATIONS

7. Which of the following conclusions is supported by research?

- A. Give low achievers as much time to respond as high achievers.
 - B. Call on another student if a student does not answer quickly.
 - C. Call on volunteers rather than selecting students randomly.
 - D. Call on a student, then ask a question.
8. Which of the following situations best illustrates transfer of learning?
- A. Students who carefully study do well on a quiz.
 - B. Students use their knowledge in one subject to solve problems in another.
 - C. Students rehearse after memorizing.
 - D. Students correctly identify an example of a concept being taught.
9. All of the following are appropriate for whole-class and small-group discussions except
- A. subjective and controversial issues.
 - B. difficult and novel concepts.
 - C. affective topics.
 - D. questions with simple answers.
10. How would you address the following situations in a whole class discussion?
- A. a student who never makes a comment
 - B. a student who talks too much
 - C. a student who argues
 - D. a student who interrupts

 AFTER YOU READ . . .

PRACTICE TEST

DIRECTIONS: Each chapter heading from the text is listed below and followed by a series of related questions worth a total of ten points. Respond to each question, check your answers with those found at the end of the study guide chapter, then determine your score. Consider nine points per heading to be mastery.

WHAT IS DIRECT INSTRUCTION?

True and False

1. (1 point) _____ The term “direct instruction” is used to describe lessons in which the teacher transmits information directly to students, structuring class time to reach a clearly defined set of objectives as efficiently as possible.
2. (1 point) _____ Direct instruction is appropriate when exploration, discovery, and open-ended objectives drive the lesson.
3. (1 point) _____ There is general agreement among researchers and teachers as to the sequence of events that characterize effective direct instruction lessons.

Short Answer/Essay

4. (7 points) _____ Describe the parts of a direct instruction model.

HOW IS A DIRECT INSTRUCTION LESSON TAUGHT?

True or False

5. (1 point) _____ The sequence of activities included in an effective lesson varies according to the grade level of the students.
6. (1 point) _____ The sequence of activities included in an effective lesson varies according to the subject matter content.

7. (8 points)

Order in Sequence

- _____ Provide distributed practice.
 _____ Review prerequisites.
 _____ Conduct learning probes.
 _____ State learning objective(s).
 _____ Provide independent practice.
 _____ Present new material.
 _____ Assess performance and provide feedback.
 _____ Orient students to lesson.

WHAT DOES RESEARCH ON DIRECT INSTRUCTION METHODS SUGGEST?

8. (1 point) _____ *Sentence Completion* are direct instruction models based on the practices of the most effective teachers.
9. (1 point) _____ are direct instruction models based on well-structured and highly organized planning, including the motivation of students and the management of classrooms.
10. (1 point) _____ is the term used by Madeline Hunter to describe a method for stimulating students' interest.
11. (1 point) _____ *Multiple Choice* Research on Madeline Hunter's mastery teaching program suggests that it is
- A. superior to other direct instruction programs at all grade levels and across disciplines.
 - B. no more and no less effective than other direct instruction programs.
 - C. inferior to other direct instruction programs.
12. (1 point) _____ Which of the following research findings is accurate regarding the systematic instruction program called DISTAR?
- A. DISTAR was least effective in increasing students' reading and math achievement when compared to other systematic instruction models.
 - B. DISTAR increased students' academic achievement but had no effect on students' self-esteem.
 - C. DISTAR brought low achieving, disadvantaged students to nearly average.
13. (2 points) _____ *Short Answer/Essay* List two advantages of direct instruction.
- _____
- _____

14. (3 points) _____ List three limitations of direct instruction.
- _____
- _____
- _____

HOW DO STUDENTS LEARN AND TRANSFER CONCEPTS?

True or False

15. (1 point) _____ A concept is a category under which specific elements may be grouped.
16. (1 point) _____ With a rule-example-rule approach to concept learning, teachers give students instances of the concept, then ask them to provide a definition.
17. (1 point) _____ Transfer of learning depends on the degree of similarity between the learning situation and the situation to which it is applied.
18. (1 point) _____ If a student learns a skill or a concept in one domain, it can be assumed that the knowledge will transfer to another domain.

Short Answer/Essay

19. (3 points) _____ List the three rules to follow when presenting examples of concepts.

20. (3 points) _____ Describe the difference in strategies between teaching for transfer and teaching initial learning.

HOW ARE DISCUSSIONS USED IN INSTRUCTION?

Short Answer/Essay

21. (3 points) _____ List three types of learning objectives that are best met by using discussions.

22. (1 point) _____ Define “inquiry oriented discussion.”

23. (1 point) _____ Define “exploring points of view.”

24. (2 points)

List two functions of the teacher when using whole-class discussion.

25. (3 points)

Explain the roles of the teacher, the group leader, and the group secretary when using small-group discussion.

Now check your answers and total your points. Answers are found at the end of the study guide chapter.

SCORING	POINTS NEEDED FOR MASTERY	POINTS RECEIVED
WHAT IS DIRECT INSTRUCTION?	<u>9</u>	<u> </u>
HOW IS A DIRECT INSTRUCTION LESSON TAUGHT?	<u>9</u>	<u> </u>
WHAT DOES RESEARCH ON DIRECT INSTRUCTION METHODS SUGGEST?	<u>9</u>	<u> </u>
HOW DO STUDENTS LEARN AND TRANSFER CONCEPTS?	<u>9</u>	<u> </u>
HOW ARE DISCUSSIONS USED IN INSTRUCTION?	<u>9</u>	<u> </u>

SELF-CHECK ANSWERS Chapter 7

1. B. Learner control does not describe effective instruction. The other strategies listed demonstrate the interaction between the student and the teacher.
2. G, F, C, B, E, A, D. The seven steps in a direct instruction lesson would be in the following order: g) State learning objective and orient students to lesson; f) review prerequisites; c) present new material; b) conduct learning probes; e) provide independent practice; a) assess performance and provide feedback; d) provide distributed practice and review.
3. A. During the “present new material” phase of direct instruction, the teacher teaches the lesson by giving examples, demonstrating concepts, and so on.
4. Strategies that make independent practice time effective include: 1) do not assign independent practice until you are sure students can do it; 2) keep independent practice assignments short; 3) give clear instructions; 4) get students started and then avoid interruptions; 5) monitor independent work; and 6) collect independent work and include it in student grades.
5. D. Direct instruction methods do not work well for teaching critical thinking skills, according to the research. Direct instruction is particularly appropriate for teaching a well-defined body of information or skills that all students must master. It is less appropriate when exploration, discovery, and open-ended objectives are the object of instruction.
6. It is clear that direct instruction methods can improve the teaching of certain basic skills, but it is equally clear that much is yet to be learned about how and for what purposes they should be used. The prescriptions derived from studies of effective teachers cannot be applied uncritically in the classroom and be expected to make a substantial difference in student achievement. Structured, systematic instructional programs based on these prescriptions can markedly improve student achievement in basic skills, but it is important to remember that the research on direct instruction has mostly focused on basic reading and mathematics, usually in the elementary grades. For other subjects and at other grade levels we have less of a basis for believing that direct instruction methods will improve student learning.
7. A. Research indicates that low achievers should have as much time to respond as high achievers. Research has also found that teachers tend to give up too rapidly on students whom they perceive to be low achievers and not give them the same amount of wait time.
8. B. Transfer of learning is the application of knowledge acquired in one situation to new situations. For example, students having a knowledge of geometry should be better prepared to solve a perspectives problem in art.
9. D. Questions with one answer or with simple answers are not appropriate for group discussions.
10. During a whole-class discussion, teachers play the role of moderator. They guide the discussion and help the class avoid dead ends while ideas are drawn from students. Rules about how to deal with students who are quiet, or who talk too much, argue, or who interrupt should be determined and explained to students before the discussion begins.

PRACTICE TEST ANSWERS Chapter 7

1. True; Direct instruction involves teacher-directed activities based on specific objectives.
2. False; Direct instruction is appropriate when teaching a well-defined body of information or skills.
3. True; There is agreement among educators as to a specific sequence of events that characterizes effective direct instruction lessons.
4. Motivation, apprehension, acquisition, retention, recall, generalization, performance, feedback
5. False; The sequence of activities included in an effective lesson does not vary by grade level.
6. False; The sequence of activities included in an effective lesson does not vary by subject.
7. State learning objective. Orient students to lesson. Review prerequisites. Present new material. Conduct learning probes. Provide independent practice. Assess performance and provide feedback. Provide distributed practice and review.
8. Master teacher models; This category includes Madeline Hunter's mastery teaching and the Missouri math program.
9. Systematic instruction models. These are similar to the mastery teaching models. They are highly structured and inclusive of non-academic events.
10. Anticipatory set; Anticipation is created in students by focusing their attention on the material to be presented, reminding them of what they already know, and stimulating their interest in the lesson.
11. B; Despite widespread popularity, evaluations of Hunter's mastery teaching program generally have not found that students of teachers trained in this model learned more than other students.
12. C; DISTAR increased the academic achievement levels of disadvantaged low achievers.
13. One advantage of direct instruction is that it can improve the teaching of basic skills. A second advantage is that it is a structured, systematic instructional program.
14. One limitation of direct instruction is that, to date, research has focused on reading and math but not on other subjects. A second limitation is that it is sometimes uncritically applied to educational settings with the belief that changes will occur. A final limitation is that there is not enough research at the secondary level.
15. True; A concept is a category under which specific elements may be grouped.
16. False; A rule-example-rule approach gives students a definition, then asks students to consider examples and non-examples.
17. True; Transfer of knowledge from one domain to another is dependent upon the similarity between the two.
18. False; It can never be assumed that transfer of learning has occurred.
19. The three rules are: 1) order the examples from easy to difficult; 2) select examples that differ from one another; and 3) compare and contrast examples and non-examples.

20. Teaching for transfer of learning requires the ability to apply knowledge to a variety of circumstances; therefore, similar examples, less similar examples, and non-examples are used to facilitate the process. Initial learning requires that very similar examples be used.
21. Learning objectives that work best for discussion focus on content without simple answers, contain difficult concepts that challenge misconceptions, and are affective in nature.
22. Inquiry training involves presenting students with a puzzling event or experiment that they must solve through theory generation and hypothesis testing.
23. Exploring points of view involves asking students to explore ideas and develop their own beliefs about newly learned information.
24. One teacher function is to guide the discussion. A second function is to help the class avoid dead ends.
25. The teacher prepares the students (with lessons and clear instructions about the group's task). The group leader keeps the group on task and ensures that all group members participate. The group secretary records the group's ideas.