Principles of Learning and Teaching: Grades K–6 (0522)

Multiple-Choice Questions

Directions: For each question, select the best answer and mark the corresponding space on your answer sheet.

1. Classroom management research findings suggest that one of the most effective ways to maximize the amount of time elementary school children spend on academic activities is for the teacher to do which of the following?
   (A) Plan for, teach, and enforce routines for transition times and classroom housekeeping tasks.
   (B) Assign homework three times a week in the major subjects.
   (C) Assign individual reading on new topics before discussing the topic in class.
   (D) Introduce new material in a lecture followed immediately by a questioning session on the material.

2. Which of the following kinds of instruction is frequently cited as the opposite of discovery learning?
   (A) Simulation games
   (B) Expository teaching
   (C) Mastery learning
   (D) Schema training

3. During a visit to a second-grade classroom, a student teacher observed a child spending the time allotted for a worksheet either looking out the window or doodling on his paper. When the student teacher asked the child if he needed help on the assignment, he said no. When asked why he wasn’t doing it, he pointed to another student and said, “She does all her work fast and when she’s done, she gets more work.”

   The boy’s reaction suggests which of the following about his classroom?
   (A) A routine has been established for students who are having trouble finishing an
assignment to ask the teacher for assistance.

(B) A routine for rewarding students who finish work promptly is not in place.

(C) Students must work alone on seatwork, without consulting other students.

(D) Students who finish work before the whole class is finished must not interrupt the students who are still working.

4. For developing the language abilities of kindergartners, which of the following would be the most appropriate way to follow up the writing of a group essay?

(A) Prepare a list of the most difficult words for the children to learn to spell.

(B) Show the children how to revise the sentences to make them longer and more complex structurally.

(C) Have the children print the essay for themselves, then practice writing it, using cursive letters.

(D) Read the essay aloud, in unison with the children, then leave it displayed where they can examine it.

5. Dan is one of two students in Ms. Kane’s fifth-grade class under the “least-restrictive environment” provision. Dan has a very limited attention span and says he usually cannot follow what is going on in class. One of the IEP objectives for Dan is “Given a 10–12 minute lecture/oral lesson, Dan will take appropriate notes as judged by the teacher.” Which of the following strategies has the best potential to help Dan meet this goal by the end of the year?

(A) Ms. Kane grades Dan’s notes on lecture/oral lesson material and incorporates the grade into Dan’s overall class grade.

(B) Ms. Kane allows Dan to tape-record the lecture/oral lesson, rather than taking notes, and then listen to the tape at home to learn the material.

(C) Ms. Kane provides Dan with a graphic organizer, or a skeleton outline, of the lecture so Dan can fill in the missing information as it is provided.

(D) Ms. Kane seats Dan with a student he says he likes and allows Dan to ask that student questions as the lecture/oral lesson proceeds.
6. Daryl, a sixth grader, receives a score report from a standardized mathematics test taken by his entire sixth grade class that includes both a grade-equivalent score and a national percentile rank. Daryl’s grade-equivalent score is 8.2. His national percentile rank is 87.

Daryl’s grade-equivalent score indicates that which of the following is true?

(A) Daryl did as well on his test as an average eighth grade student in the second month of school would do on an eighth-grade test.

(B) Daryl can do the mathematics expected of an average eighth grader who is in the second month of the school year.

(C) Daryl may well encounter difficulties in the later stages of the eighth-grade mathematics curriculum.

(D) Daryl did as well on this test as an average eighth grader in the second month of school would do on the same test.

Questions 7 and 8 are based on the following passages.

The following passages are taken from a debate about the advantages and disadvantages of a constructivist approach to teaching.

Why constructivist approaches are effective

The point of constructivist instruction is to have students reflect on their questions about new concepts in order to uncover their misconceptions. If a student cannot reason out the answer, this indicates a conceptual problem that the teacher needs to address. It takes more than content-related professional expertise to be a “guide on the side” in this process. Constructivist teaching focuses not on what the teacher knows, but on what and how the student learns. Expertise is focused on teaching students how to derive answers, not on giving them the answers. This means that a constructivist approach to teaching must respond to multiple different learning methods and use multiple approaches to content. It is a myth that constructivist teaching never requires students to memorize, to drill, to listen to a teacher explain, or to watch a teacher model problem-solving of various kinds.

What constructivist approaches take advantage of is a basic truth about human cognition: we all make sense of new information in terms of what we already know or think we know. And each of us must process new information in our own context and
experience to make it part of what we really know.

**Why constructivist approaches are misguided**

The theory of constructivism is appealing for a variety of reasons—especially for its emphasis on direct student engagement in learning. However, as they are implemented, constructivist approaches to teaching often treat memorization, direct instruction, or even open expression of teacher expertise as forbidden. This demotion of the teacher to some sort of friendly facilitator is dangerous, especially in an era in which there is an unprecedented number of teachers teaching out of their fields of expertise. The focus of attention needs to be on how much teachers know about the content being taught.

Students need someone to lead them through the quagmire of propaganda and misinformation that they confront daily. Students need a teacher who loves the subject and has enough knowledge to act as an intellectual authority when a little direction is needed. Students need a teacher who does not settle for minimal effort but encourages original thinking and provides substantive intellectual challenge.

7. The first passage suggests that reflection on which of the following after a lesson is an essential element in constructivist teaching?

   (A) The extent to which the teacher’s knowledge of the content of the lesson was adequate to meet students’ curiosity about the topic
   (B) The differences between what actually took place and what the teacher planned
   (C) The variety of misconceptions and barriers to understanding revealed by students’ responses to the lesson
   (D) The range of cognitive processes activated by the activities included in the lesson design and implementation

8. The author of the second passage would regard which of the following teacher behaviors as essential for supporting student learning?

   (A) Avoiding lecture and memorization
   (B) Allowing students to figure out complex problems without the teacher’s intervention
   (C) Emphasizing process rather than content knowledge
   (D) Directly guiding students’ thinking on particular topics
Answers

1. The best answer is A. Too much time is often spent supervising students in relation to personal needs and everyday housekeeping tasks, and interruptions for this purpose are a major source of discontinuity in academic activities. Teachers can minimize these problems by preparing the classroom and students to handle routine activities on their own.

2. The best answer is B. The method of teaching most often seen as the opposite of discovery teaching is expository teaching. Discovery learning allows students to explore material on their own and arrive at conclusions. In expository teaching, students are presented with subject matter organized by the teacher.

3. The best answer is B. Students are quick to learn classroom routines for work incentives and penalties, as the student’s remark implies. No routine has been established to reward students who finish their work early.

4. The best answer is D. The most appropriate follow-up is one that motivates children toward continued expression. Displaying the essay serves as a form of publication and allows the children to reread the essay on their own terms. Reading in unison provides a non-threatening way for the children to practice the language skills they have learned.

5. The best answer is C. This question asks you to identify an instructional strategy that provides the student with a clearly structured activity to keep him on task to reach the IEP objectives. The information provided about Dan tells you that the strategy the teacher chooses must help Dan in two ways: it must keep his attention from wandering and it must help him to follow what is going on in the lesson. In addition, the strategy needs to provide the teacher with assessment information to use in evaluating the student’s progress.

6. The best answer is D. A grade-equivalent score is a score that compares the raw score attained on a test by the individual student to the raw score attained by the average student in the norm group for the particular test and then reports the grade and month level of that norm group comparison. In this case, Daryl’s raw score was equivalent to the average raw score of all eighth graders in the second month of school who were part of the norm group.
7. The best answer is C. Constructivist teaching depends on the connection of new information to already learned information or understandings, whether or not they are accurate. The passage says, “The point of constructivist instruction is to have students reflect on their questions about new concepts in order to uncover their misconceptions. If a student cannot reason out the answer, this indicates a conceptual problem that the teacher needs to address.” Thus, a consideration of barriers and/or misconceptions in response to the presentation of new material is an essential follow-up to a constructivist lesson.

8. The best answer is D. The second author maintains that students require teacher guidance and a direct expression of the teacher’s expert content knowledge in order to learn most effectively. Choices A (avoiding lecturing), B (learning without teacher intervention), and C (de-emphasis on content knowledge) are not consistent with this approach to teaching. Direct guidance of students’ thinking is consistent with the second author’s approach.