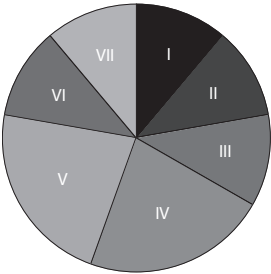


Principles of Learning and Teaching

Tests at a Glance

Test Names and Test Codes	Principles of Learning and Teaching: Early Childhood (0521) Principles of Learning and Teaching: Grades K-6 (0522) Principles of Learning and Teaching: Grades 5-9 (0523) Principles of Learning and Teaching: Grades 7-12 (0524)	
Time	2 hours	
Number of Questions	12 short-answer questions and 24 multiple-choice questions	
Format	4 case histories will be presented, each followed by 3 short-answer questions; 24 multiple-choice questions are included in two sections of 12 questions each	
	Categories that will appear on your score report	Approximate Percentage of Total Score
	I. Students as Learners (multiple-choice questions) II. Instruction and Assessment (multiple-choice questions) III. Teacher Professionalism (multiple-choice questions) IV. Students as Learners (short-answer questions) V. Instruction and Assessment (short-answer questions) VI. Communication Techniques (short-answer questions) VII. Teacher Professionalism (short-answer questions)	11% 11% 11% 22% 22% 11% 11%
Pacing Considerations	You will need to monitor your time carefully. Plan on approximately 25 minutes per case history. This amount of time has been ample for most examinees to read the case study and respond to the short-answer questions. Allow approximately 10 minutes to answer each of the two sections of multiple-choice questions. The multiple-choice questions are not associated with the case histories. Do not spend too much time on any one section of the test or on any one question.	

About this test

The Principles of Learning and Teaching test is designed to assess a beginning teacher's knowledge of a variety of job-related criteria. Such knowledge is typically obtained in undergraduate preparation in areas such as educational psychology, human growth and development, classroom management, instructional design and delivery techniques, evaluation and assessment, and other professional preparation.

The test includes four case histories, each presenting a particular teaching situation. For each case history, the examinee will respond to three short-answer questions related to the teaching situation described in the case history. The twelve short-answer questions will cover all of the content areas listed under Topics Covered. Each short-answer question will be scored on a scale of 0-2. Questions may require the examinee to do any of the following: demonstrate understanding of

the importance of an aspect of teaching, demonstrate understanding of the principles of learning and teaching underlying an aspect of teaching, or recognize when and how to apply the principles of learning and teaching underlying an aspect of teaching. Each case history with short-answer questions will require approximately 25 minutes.

In addition, the test contains two sections of twelve multiple-choice questions covering an array of topics listed under Topics Covered. Each multiple-choice question section will require approximately 10 minutes.

Topics Covered

I. Students as Learners

A. Student Development and the Learning Process

1. Theoretical foundations about how learning occurs: how students construct knowledge, acquire skills, and develop habits of mind
 - Examples of important theorists
 - Important terms that relate to learning theory
2. Human development in the physical, social, emotional, moral, speech/language, and cognitive domains
 - Contributions of important theorists
 - Major progressions in each developmental domain and the ranges of individual variation within each domain

- Impact of students' physical, social, emotional, moral, and cognitive development on their learning and how to address these factors when making instructional decisions
- How development in one domain, such as physical, may affect performance in another domain, such as social

B. Students as Diverse Learners

1. Differences in the ways students learn and perform
 - Learning styles
 - Multiple intelligences
 - Performance modes
 - Concrete operational thinkers
 - Visual and aural learners
 - Gender differences
 - Cultural expectations and styles
2. Areas of exceptionality in students' learning
 - Visual and perceptual difficulties
 - Special physical or sensory challenges
 - Learning disabilities
 - Attention-deficit disorder (ADD); attention-deficit/hyperactivity disorder (ADHD)
 - Functional mental retardation
 - Behavioral disorders
 - Developmental delays

3. Legislation and institutional responsibilities relating to exceptional students
 - Americans with Disabilities Act (ADA)
 - Individuals with Disabilities Education Act (IDEA)
 - Inclusion, mainstreaming, and "least restrictive environment"
 - IEP (Individualized Education Plan), including what, by law, must be included in each IEP
 - Section 504 of the Rehabilitation Services Act
 - Due process
 - Family involvement
4. Approaches for accommodating various learning styles, intelligences, or exceptionalities
 - Differentiated instruction
 - Alternative assessments
 - Testing modifications
5. Process of second-language acquisition and strategies to support the learning of students for whom English is not a first language
6. Understanding the influence of individual experiences, talents, and prior learning, as well as language, culture, family, and community values on students' learning
 - Multicultural backgrounds
 - Age-appropriate knowledge and behavior
 - The student culture at school

Principles of Learning and Teaching

- Family backgrounds
- Linguistic patterns and differences
- Cognitive patterns and differences
- Social and emotional issues

C. Student Motivation and the Learning Environment

1. Theoretical foundations of human motivation and behavior
 - Important terms that relate to motivation and behavior
2. How knowledge of human motivation and behavior should influence strategies for organizing and supporting individual and group work in the classroom
3. Factors and situations that are likely to promote or diminish student's motivation to learn, and how to help students to become self-motivated
4. Principles of effective classroom management and strategies to promote positive relationships, cooperation, and purposeful learning
 - Establishing daily procedures and routines
 - Establishing classroom rules
 - Using natural and logical consequences
 - Providing positive guidance
 - Modeling conflict resolution, problem solving, and anger management
 - Giving timely feedback
 - Maintaining accurate records
 - Communicating with parents and caregivers

- Using objective behavior descriptions
- Responding to student behavior
- Arranging classroom space
- Pacing and structuring the lesson

II. Instruction and Assessment

A. Instructional Strategies

1. Major cognitive processes associated with student learning
 - Critical thinking
 - Creative thinking
 - Higher-order thinking
 - Inductive and deductive thinking
 - Problem structuring and problem solving
 - Invention
 - Memorization and recall
 - Social reasoning
 - Representation of ideas
2. Major categories, advantages, and appropriate uses of instructional strategies
 - Cooperative learning
 - Direct instruction
 - Discovery learning
 - Whole-group discussion
 - Independent study
 - Interdisciplinary instruction
 - Concept mapping
 - Inquiry method
 - Questioning
 - Play
 - Learning centers
 - Small-group work
 - Revisiting
 - Reflection
 - Project approach

3. Principles, techniques, and methods associated with major instructional strategies
 - Direct instruction
 - Student-centered models
4. Methods for enhancing student learning through the use of a variety of resources and materials
 - Computers, Internet resources, Web pages, e-mail
 - Audiovisual technologies such as videotapes and compact discs (CDs)
 - Local experts
 - Primary documents and artifacts
 - Field trips
 - Libraries
 - Service learning

B. Planning Instruction

1. Techniques for planning instruction, including addressing curriculum goals, selecting content topics, incorporating learning theory, subject matter, curriculum development, and student development and interests
 - National and state learning standards
 - State and local curriculum frameworks
 - State and local curriculum guides
 - Scope and sequence in specific disciplines
 - Units and lessons
 - Rationale for selecting content topics

- Behavioral objectives: affective, cognitive, psychomotor, speech/language
 - Learner objectives and outcomes
 - Emergent curriculum
 - Antibias curriculum
 - Themes/projects
 - Curriculum webbing
2. Techniques for creating effective bridges between curriculum goals and students' experiences
- Modeling
 - Guided practice
 - Independent practice, including homework
 - Transitions
 - Activating students' prior knowledge
 - Anticipating preconceptions
 - Encouraging exploration and problem solving
 - Building new skills on those previously acquired
 - Predicting

C. Assessment Strategies

1. Types of assessments
2. Characteristics of assessments
3. Scoring assessments
4. Uses of assessments
5. Understanding of measurement theory and assessment-related issues
6. Interpreting and communicating results of assessments

III. Communication Techniques

A. Basic, effective verbal and nonverbal communication techniques

B. Effect of cultural and gender differences on communications in the classroom

C. Types of communications and interactions that can stimulate discussion in different ways for particular purposes

- Probing for learner understanding
- Helping students articulate their ideas and thinking processes
- Promoting risk taking and problem solving
- Facilitating factual recall
- Encouraging convergent and divergent thinking
- Stimulating curiosity
- Helping students to question
- Promoting a caring community

IV. Profession and Community

A. The Reflective Practitioner

1. Types of resources available for professional development and learning
 - Professional literature
 - Colleagues
 - Professional associations
 - Professional-development activities
2. Ability to read, understand, and apply articles and books about current research, views, ideas, and debates regarding best teaching practices

3. Ongoing personal reflection on teaching and learning practices as a basis for making professional decisions
 - Code of Ethics
 - Advocacy for learners

B. The Larger Community

1. Role of the school as a resource to the larger community
 - Teachers as a resource
2. Factors in the students' environment outside of school (family circumstances, community environments, health and economic conditions) that may influence students' life and learning
3. Develop and utilize active partnerships among teachers, parents/guardians and leaders in the community to support the educational process
 - Shared ownership
 - Shared decision making
 - Respectful/reciprocal communication
4. Major laws related to students' rights and teacher responsibilities
 - Equal education
 - Appropriate education for students with special needs
 - Confidentiality and privacy
 - Appropriate treatment of students
 - Reporting in situations related to possible child abuse

Principles of Learning and Teaching: Grades 7-12 (0524)

The sample questions that follow illustrate the kinds of questions in the test. They are not, however, representative of the entire scope of the test in either content or difficulty. Answers with explanations follow the questions.

Case History: 7-12

Directions: The case history is followed by two short-answer questions.

Mr. Payton

Scenario

Mr. Payton teaches world history to a class of thirty heterogeneously grouped students ages fourteen to sixteen. He is working with his supervisor, planning for his self-evaluation to be completed in the spring. At the beginning of the third week of school, he begins gathering material that might be helpful for the self-evaluation. He has selected one class and three students from this class to focus on.

Mr. Payton's first impression of the three students

Jimmy has attended school in the district for ten years. He repeated fifth and seventh grades. Two years older than most of the other students in class and having failed twice, Jimmy is neither dejected nor hostile. He is an outgoing boy who, on the first day of class, offered to help me with "the young kids" in the class. He said, "Don't worry about me remembering a lot of dates and stuff. I know it's going to be hard, and I'll probably flunk again anyway, so don't spend your time thinking about me."

Burns is a highly motivated student who comes from a family of world travelers. He has been to Europe and Asia. These experiences have influenced his career choice, international law. He appears quiet and serious. He has done extremely well on written assignments and appears to prefer to work alone or with one or two equally bright, motivated students. He has a childhood friend, one of the slowest students in the class.

Pauline is a withdrawn student whose grades for the previous two years have been mostly C's and D's. Although Pauline displays no behavior problems when left alone, she appears not to be popular with the other students. She often stares out the window when she should be working. When I speak to Pauline about completing assignments, she becomes hostile. She has completed few of the assignments so far with any success. When I spoke to her counselor, Pauline yelled at me, "Now I'm in trouble with my counselor too, all because you couldn't keep your mouth shut!"

Mr. Payton's initial self-analysis, written for his supervisor

I attend workshops whenever I can and consider myself a creative teacher. I often divide the students into groups for cooperative projects, but they fall apart and are far from "cooperative." The better-performing students, like Burns, complain about the groups, claiming that small-group work is boring and that they learn more working alone or with students like themselves. I try to stimulate all the students' interest through class discussions. In these discussions, the high-achieving students seem more interested in impressing me than in listening and responding to what other students have to say. The low-achieving students seem content to be silent. Although I try most of the strategies I learn in workshops, I usually find myself returning to a modified lecture and the textbook as my instructional mainstays.

Background information on lesson to be observed by supervisor

Goals:

- To introduce students to important facts and theories about Catherine the Great
- To link students' textbook reading to other sources of information
- To give students practice in combining information from written and oral material
- To give students experience in note taking

I assigned a chapter on Catherine the Great in the textbook as homework on Tuesday. Students are to take notes on their reading. I gave Jimmy a book on Catherine the Great with a narrative treatment rather than the factual approach taken by the textbook. I told him the only important date is the date Catherine began her reign. The book has more pictures and somewhat larger print than the textbook.

I made no adaptation for Burns, since he's doing fine. I offered to create a study guide for Pauline, but she angrily said not to bother. I hope that Wednesday's lecture will make up for any difficulties she might experience in reading the textbook.

Supervisor's notes on Wednesday's lesson

Mr. Payton gives a lecture on Catherine the Great. First he says, "It is important that you take careful notes because I will be including information that is not contained in the chapter you read as homework last night. The test I will give on Friday will include both the lecture and the textbook information."

He tape records the lecture to supplement Pauline's notes but does not tell Pauline about the tape until the period is over because he wants her to do the best note taking she can manage. During the lecture, he speaks slowly, watching the class as they take notes. In addition, he walks about the classroom and glances at the students' notes.

Mr. Payton's follow-up and reflection

Tomorrow the students will use the class period to study for the test. I will offer Pauline earphones to listen to the tape-recorded lecture. On Friday, we will have a short-answer and essay test covering the week's work.

Class notes seem incomplete and inaccurate, and I'm not satisfied with this test as an assessment of student performance. Is that a fair measure of all they do?

Sample Questions

This section presents two short-answer questions and sample responses along with the standards used in scoring these responses. When you read these sample responses, keep in mind that they are less polished than if they had been developed at home, edited, and carefully presented. Examinees do not know what questions will be asked and must decide, on the spot, how to respond. Readers assign scores based on the following scoring guide.

GENERAL SCORING GUIDE

A response that receives a score of 2:

- Demonstrates a thorough understanding of the aspects of the case that are relevant to the question
- Responds appropriately to all parts of the question
- If an explanation is required, provides a strong explanation that is well supported by relevant evidence
- Demonstrates a strong knowledge of pedagogical concepts, theories, facts, procedures, or methodologies relevant to the question

A response that receives a score of 1:

- Demonstrates a basic understanding of the aspects of the case that are relevant to the question
- Responds appropriately to one portion of the question
- If an explanation is required, provides a weak explanation that is supported by relevant evidence
- Demonstrates some knowledge of pedagogical concepts, theories, facts, procedures, or methodologies relevant to the question

A response that receives a score of 0:

- Demonstrates misunderstanding of the aspects of the case that are relevant to the question
- Fails to respond appropriately to the question
- Is not supported by relevant evidence
- Demonstrates little knowledge of pedagogical concepts, theories, facts, procedures, or methodologies relevant to the question

No credit is given for a blank or off-topic response.

Directions: Questions 1 and 2 require you to write short answers. You are not expected to cite specific theories or texts in your answers; however, your responses to the questions will be evaluated with respect to professionally accepted principles and practices in teaching and learning. Be sure to answer all parts of the questions. Write your answers in the spaces indicated in the response book.

Question 1

In his self-analysis, Mr. Payton says that the better-performing students say small-group work is boring and that they learn more working alone or only with students like themselves. Assume that Mr. Payton wants to continue using cooperative learning groups because he believes they have value for all students.

- Describe TWO strategies he could use to address the concerns of the students who have complained.
- Explain how each strategy suggested could provide an opportunity to improve the functioning of cooperative learning groups. Base your response on principles of effective instructional strategies.

Sample Response that Received a Score of 2

Mr. Payton has to be creative to find strategies that will address the concerns of the students who have complained and still support the strengths of cooperative learning. One way he can do that is to assign these students a variety of roles in which they can share their insights and knowledge with others in a way that will provide them recognition and will help other students. He can also build specific requirements that provide for individual work into the cooperative work, either before the groups meet or as the groups are working. This individual work provides the more able or motivated students with an opportunity to demonstrate their insights and knowledge and be given appropriate credit for them. The individual work can also serve as a basis for the group work.

Sample Response that Received a Score of 1

I understand why these students are concerned. But Mr. Payton shouldn't just give up on cooperative learning groups. I had a situation like this, when four really bright and eager kids just didn't want to work with students who were less able or less motivated. One thing he could do would be to assign his groups very carefully, so that one of the complaining kids is in each group. He could then use a system where he begins the cooperative work by regrouping, numbering the kids in each group 1, 2, 3, 4. First, all the "1's" work together, all the "2's" work together, and so forth. All the kids who complained would have the same number. After they have had the opportunity to work together on an advanced level, the groups would reform. The "1's" could go back to their own groups and share with them what the "1" group came up with. In this way, they have the intellectual stimulation of working together first, and then the status of sharing with other kids.

Sample Response that Received a Score of 0

Probably the best thing he can do is to let the complaining kids work individually. They are only going to resent the less able kids and will probably end up insulting them. The kids who are complaining will learn more if they work individually and can push themselves to their limits. The other kids can work at a level more appropriate to their ability.

Question 2

In the introduction to the lesson to be observed, Mr. Payton briefly mentions the modification he has or has not made for some students. Review his comments about modifications for Jimmy and Burns.

- For each of these two students, describe ONE different way Mr. Payton might have provided a modification to offer a better learning situation for each.
- Explain how each modification could offer a better learning situation. Base your explanation on principles of varied instruction for different kinds of learners.

5. A high school teacher is trying to help nonfluent speakers of English understand an English text. During the class, the teacher asks the students to read aloud and focuses on correcting errors in pronunciation. Which of the following is a principle of second-language development that this approach fails to take into account?
- (A) For most nonfluent speakers of a language, the fastest way to learn the language is to imitate the way native speakers speak it.
 - (B) Reading skills have to be well established before a student of a language can learn a language.
 - (C) Nonfluent speakers of a language can understand what they are reading before they can accurately pronounce all the sounds in the language.
 - (D) Students should not attempt to read aloud before they can read grade-level texts silently with understanding.
6. The concept of the placement of students in the “least restrictive” educational environment developed as a result of efforts to
- (A) equalize educational opportunities for females and minorities
 - (B) normalize the lives of those children with disabilities who were being educated in isolation from their peers
 - (C) obtain increased federal funding for the noneducational support of children living in poverty
 - (D) reduce the overall costs of educating students with special needs
7. A tenth-grade student feels overwhelmed by an assignment to write a term paper on an assigned topic. The teacher’s advice is to approach the task by breaking it into smaller subtasks with which the student has more experience. Which of the following activities is most consistent with this method?
- (A) First writing on a topic that is familiar and then adding material about how this topic is related to the assignment
 - (B) Preparing a bibliography of books and articles about the topic
 - (C) Finding two sources of information on the topic and reading each to see what they have in common
 - (D) Drafting a paper and reading it aloud to a friend to determine which parts need to be revised to be made more intelligible
8. A teacher would get better information from a criterion-referenced test than from a norm-referenced test about which of the following?
- (A) How much each individual student has learned about a particular aspect of the curriculum
 - (B) How each individual student’s knowledge of a particular aspect of the curriculum compares to that of students across the school district and state
 - (C) How each individual student’s knowledge of a particular aspect of the curriculum compares to that of a national sample of students at the same age level
 - (D) How much of what each student knows about a particular aspect of the curriculum is based on prior knowledge

Answers

1. See sample responses on page 39.
2. See sample responses on page 40.
3. The best answer is C. The consensus among educational researchers is that students will learn only when motivated. To be motivated to learn, students must find academic activities meaningful and worthwhile and work toward learning goals (to gain knowledge and master skills), not merely toward performance goals (to appear capable in the eyes of others). By discussing learning goals with the students, the teacher helps them have motivation to learn.
4. The best answer is A. A scaffold is a temporary learning aid, designed to help the student to grow in independence as a learner; thus, once the skill the scaffold is intended to help teach has been mastered, the scaffold should be withdrawn. Asking the students to come up with their own list of terms to use in the new assignment in effect withdraws the scaffold and encourages independence. None of the actions described in the other answer choices does these things.
5. The best answer is C. Formal accuracy in pronunciation should not be required initially or be expected in the beginning stages of language development. Learning should focus initially on comprehension rather than on correct and incorrect usage.
6. The best answer is B. The concept of “least restrictive” stems from P.L. 94-142 and subsequent legislation regarding the education of students with disabilities and implies that special students are not to be classified by disability and given permanent special placement on the basis of these classifications. Rather, they are to be moved to special settings only if necessary and only for as long as necessary.
7. The best answer is C. A large task is more easily accomplished by breaking the task into smaller parts. Choices A and D involve writing a paper first, which is

exactly what the student finds insurmountable. Choice B may also be too large or too unfamiliar a task for the student to be successful.

8. The best answer is A. Criterion-referenced tests are developed to assess knowledge and understanding of specified standards for learning particular content. They are designed to enable individual students or groups of students who have studied the same material to assess how much they have learned as compared to the criterion, or standard. A norm-group performance is not required for a criterion-referenced test, since the goal is to measure knowledge against a predefined knowledge standard. Whether a person passes a criterion-referenced test is not judged in relation to how other applicants performed (which would be norm-referenced) but in relation to an established standard for minimum number correct.

9. 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.

10. 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.