EDUCATIONAL PSYCHOLOGY

Educational psychology is the study of how humans learn in _____, the effectiveness of _____, the psychology of teaching, and the social psychology of schools as organizations. Educational psychology is concerned with how students learn and develop, often focusing on subgroups such as gifted children and those subject to _____.

Educational psychology can in part be understood through its relationship with other disciplines. It is informed primarily by psychology, bearing a relationship to that discipline analogous to the relationship between _____. Educational psychology in turn informs a wide range of specialities within educational studies, including instructional design, educational technology, _____, organizational learning, special education and classroom management. Educational psychology both _____ cognitive science and the learning sciences.

Social, moral and cognitive development. To understand the characteristics of learners in childhood, adolescence, adulthood, and old age, educational psychology _____ theories of human development. Often represented as stages _____, developmental theories describe changes in mental abilities (cognition), social roles, moral reasoning, and beliefs about the nature of knowledge.

For example, educational psychologists have researched the _____ of Jean Piaget's theory of development, according to which children mature through four stages of cognitive capability. Piaget hypothesized that children are not capable of abstract logical thought until they are older than about 11 years, and therefore younger children need to be taught using _____. Researchers have found that transitions, such as from concrete to abstract logical thought, do not occur at the same time _____. A child may be able to think abstractly about mathematics, but remain limited to concrete thought _____ about human relationships.

Individual differences and disabilities. Each person has an individual profile of characteristics, abilities and challenges that result from _____. These manifest as individual differences in intelligence, creativity, cognitive style, motivation and _____, communicate, and relate to others. The most prevalent disabilities found among school age children are _____ (ADHD), dyslexia, and speech disorder. Less common disabilities include mental retardation, hearing impairment, and blindness.

Although theories of intelligence have been discussed by philosophers since Plato, intelligence testing is an invention of educational psychology, and _____ the development of that discipline.

Continuing debates about the nature of intelligence revolve on whether intelligence can be characterized by a single factor known as _____, multiple factors (e.g., Gardner's theory of multiple intelligences), or _____. In practice, standardized instruments such as the Stanford-Binet IQ test and the WISC are widely used in economically developed countries to identify children in need of individualized educational treatment. Children classified as gifted are often provided with _____. Children with _____ may be provided with enhanced education in specific skills such as phonological awareness. In addition to basic abilities, the individual's _____ are also important, with people higher in conscientiousness and hope attaining _____, even after controlling for intelligence and past performance.

Learning and cognition. Two fundamental assumptions that _____ are that students (a) retain knowledge and skills they acquire in school, and (b) can apply them in situations outside the classroom. But are these assumptions _____? Research has found that, even when students report not using the knowledge acquired in school, a considerable portion is retained for many years and long-term retention is strongly dependent on the _____. One study found that university students who took a child development course and attained high grades showed, when tested ten years later, average _____ of about 30%, whereas those who obtained moderate or lower grades showed average retention scores of about 20%.

There is much less consensus on the _____ of how much knowledge acquired in school transfers to tasks encountered outside formal educational settings, and how such transfer occurs. Some psychologists claim that research evidence for this type of *far transfer* is _____, while others claim there is abundant evidence of far transfer in _____.

Several perspectives have been established within which the theories of learning used in educational psychology are formed and contested.

Behavioral perspective. Applied behavior analysis, a set of techniques based on the behavioral principles of _____, is effective in a range of educational settings. For example, teachers can _____ _____ by systematically rewarding students who follow classroom rules with praise, stars, or tokens exchangeable for sundry items. Despite the demonstrated efficacy of awards in changing behavior, their use in education has been criticized by _____, who claim that praise and other rewards undermine intrinsic motivation. There is evidence that _____ decrease intrinsic motivation in specific situations, such as when the student already has a high level of intrinsic motivation to perform the goal behavior. But the results showing detrimental effects are _____ by

evidence that, in other situations, such as when rewards are given for attaining a gradually increasing standard of performance, rewards enhance intrinsic motivation.

Cognitive perspective. Cognitive theories claim that memory structures determine how information is

_____.

The spaced learning effect, a cognitive phenomenon strongly supported by psychological research, has broad applicability within education. For example, students have been found to perform better on a test of knowledge about a text passage when a second reading of the passage is _____. Educational psychology research has confirmed the applicability to education of other findings from cognitive psychology, such as the benefits of using _____ for immediate and delayed retention of information.

Developmental perspective. The psychology of cognitive development involves understanding how cognitive change takes place and recognizing the factors and processes which _____

_____.

The psychology of cognitive development is also concerned with individual differences in the organization of cognitive processes and abilities, in their rate of change, and in their mechanisms of change. The principles underlying _____ could be educationally useful, because knowing how students differ in regard to the various dimensions of cognitive development would enable the teacher _____ the needs of the different students so that no one is left behind.

Social cognitive perspective. Social cognitive theory is a _____ of behavioral, cognitive and social elements that was initially developed by educational psychologist Albert Bandura. In its earlier, _____ called *social learning theory*, Bandura emphasized the process of observational learning in which a learner's behavior changes as a result of observing others' behavior and its consequences. The theory identified several factors that determine whether observing a model will affect _____. These factors include the learner's developmental _____, the perceived _____ of the model, the _____ received by the model, the _____ of the model's behaviors and consequences to the learner's goals, and the learner's _____. The concept of self-efficacy, which played an important role in later developments of the theory, refers to the learner's _____ in his or her ability to perform the modeled behavior.

An experiment by Schunk and Hanson, that studied students who had previously experienced difficulty in learning subtraction, illustrates the type of research stimulated by _____. One group of students observed a subtraction demonstration by a teacher and then participated in an instructional program on subtraction. A second group observed other students performing the same subtraction procedures and then

participated in the same instructional program. The students who observed _____ scored higher on a subtraction post-test and also reported greater _____. The results were interpreted as supporting the hypothesis that perceived similarity of the model to the learner _____, leading to more effective learning of modeled behaviors. It is supposed that peer modeling is particularly effective for students who have _____.

Over the last decade, much research activity in educational psychology has focused on developing theories of _____ (SRL) and metacognition. These theories work from the central premise that effective learners are _____ by setting goals, analyzing tasks, planning strategies and monitoring their understanding. Research has indicated that learners who are better at goal-setting and self-monitoring tend to have greater intrinsic task interest and self-efficacy; and that teaching learning strategies can _____.

Motivation. Motivation is an internal state that activates, guides and _____. Educational psychology research on motivation is concerned with the _____ that students bring to a task, their level of interest and _____, the personally held goals that guide their behavior, and their belief about the causes of their _____. As intrinsic motivation deals with activities that act as their own rewards, extrinsic motivation deals with motivations that are brought on by _____ _____.

A form of _____ developed by Bernard Weiner describes how students' beliefs about the causes of academic success or failure affect their emotions and motivations. For example, when students attribute failure to _____, and ability is perceived as uncontrollable, they experience the emotions of _____ and consequently decrease effort and show poorer performance. In contrast, when students attribute failure to _____, and effort is perceived as controllable, they experience the emotion of _____ and consequently increase effort and show improved performance.

Motivational theories also explain how learners' goals affect the way they _____ academic tasks. Those who have *mastery goals* strive to increase their _____. Those who have *performance approach goals* strive for _____ and seek opportunities to demonstrate their abilities. Those who have *performance avoidance* goals are driven by _____ and avoid situations where their abilities are exposed. Research has found that mastery goals are associated with many positive outcomes such as _____, preference for challenging tasks, creativity and intrinsic motivation. Performance avoidance goals are associated with negative outcomes such as _____ while studying, disorganized studying, less self-regulation, shallow information processing and test anxiety. Performance

approach goals are associated with positive outcomes, and some negative outcomes such as an _____

_____ and shallow information processing.

History. Before 1890. Modern educational psychologists are not the first to _____.

Philosophers of education such as Juan Vives, Johann Pestalozzi, Friedrich Froebel, and Johann Herbart had

examined, classified and judged the methods of education centuries before the beginnings of psychology in the late

1800s. Juan Vives (1492-1540) believed in the _____ of the study of nature. He

was one of the first to emphasize that _____ is important to learning. He suggested that the

school should be located away from disturbing noises; the air quality should be good and there should be plenty of

food for the students and teachers. Vives emphasized the importance of understanding _____

of the students and suggested practice as an _____. He also supported the

education of women.

Johann Pestalozzi (1746-1827) emphasized the child rather than _____. He spoke

out against the method of _____ as the method for learning and suggested direct

observation as a better way of learning. He used object teaching, which means when teaching the teacher should

proceed gradually from the concrete objects to the _____. He believed that the

relationship between the teacher and the child was important in providing _____ of

the child. He also was interested in the education of poor children. He was the first to establish _____

_____. Friedrich Froebel (1782-1853) is the founder of _____, which combined work

and play to teach children _____.

Johann Herbart (1776-1841) is considered the father of educational psychology. He believed that learning

was influenced _____. He thought that teachers should consider the

students' _____, what they already know, when presenting new information or

material. Herbart came up with what is now known as the formal steps. They are 5 steps that teachers should use

are:

1. Review material that has already been learned by the teacher.
2. Prepare the student for new material by giving them _____ of what they are learning next.
3. Present the new material.
4. Relate the new material to the old material that has already been learned.
5. Show how the student can _____ the new material and show the material they will learn next.

1890-1920. The period of 1890-1920 is considered _____ of educational psychology where

aspirations of the new discipline rested on the application of the scientific methods of _____

_____ to educational problems. From 1840 to 1920 37 million people immigrated to the United States. This created an _____ of elementary schools and secondary schools. The increase in immigration also provided educational psychologists the opportunity to use intelligence testing _____ immigrants at Ellis Island. Darwinism influenced the beliefs of the _____ educational psychologists. Even in the earliest years of the discipline, educational psychologists recognized the _____ of this new approach. The pioneering American psychologist William James commented that "…psychology is a science, and teaching is an art; and sciences never generate arts directly out of themselves. An intermediate inventive mind must make that application, by _____ ".

James is the father of psychology in America but he also _____ educational psychology. In his famous series of lectures *Talks to Teachers on Psychology*, published in 1899 and now regarded as the first educational psychology textbook, James defines education as "the organization of _____ of conduct and tendencies to behavior". He states that teachers should "train the pupil to behavior" so that he fits into the _____. Teachers should also realize the importance of _____. They should present information that is clear and interesting and relate this new information and material to things the student already knows about. He also _____ such as attention, memory, and association of ideas.

Alfred Binet published *Mental Fatigue* in 1898, in which he attempted to apply the _____ to educational psychology. In this experimental method he _____ two types of experiments, experiments done in the lab and experiments done in the classroom. In 1904 he was appointed the Minister of Public Education. This is when he began to look for a way to _____ with developmental disabilities. Binet strongly supported special education programs because he believed that _____. The Binet-Simon test was the first _____ and was the first to distinguish between "normal children" and those with developmental disabilities. Binet believed that it was important to study individual differences between age groups and children of the same age. He also believed that it was important for teachers to take into account individual student strengths and also the needs of the classroom as a whole when teaching and creating a _____. He also believed that it was important to train teachers in observation so that they would be able to see individual differences among children and _____ to the students. Binet also emphasized that practice of material was important. In 1916 Lewis Terman revised the Binet-Simon so that _____ was always 100. The test became known as the Stanford-Binet and was one of the most widely used _____. Terman, unlike Binet, was interested in using intelligence test to identify _____.

In his _____ of gifted children, who became known as the Termites, Terman found that gifted children become gifted adults.

Edward Thorndike (1874-1949) supported the scientific movement in education. He based teaching practices on _____. Thorndike developed the theory of instrumental conditioning or _____. It states that associations are _____ when followed by something pleasing and associations are _____ when followed by something not pleasing. He also found that learning is done a little at a time or _____, learning is an automatic process and all the principles of learning apply to _____. Thorndike's research with Robert Woodworth on the theory of transfer found that learning one subject will only influence your ability to learn another subject if _____. Thorndike contributed word dictionaries that were scientifically based to determine the words and definitions used. The dictionaries were the first to take into consideration the users' _____. He also integrated pictures and _____ into each of the definitions. Thorndike contributed arithmetic books based on learning theory. He developed tests that were standardized to _____ in school related subjects.

John Dewey (1859-1952) believed that the classroom should prepare children to be good citizens and _____. He pushed for the creation of practical class that could be _____ a school setting. He also thought that education should be _____ not _____. For Dewey education was social that helped bring together _____. He states that students learn by _____. He believed in an active mind that was able to be educated through observation and problem solving and _____. In his 1910 book *How We Think* he emphasizes that material should be provided in way that is _____ _____ to the student and it encourages original thoughts and problem solving. He also stated that material should be relative to the student's _____.

Jean Piaget (1896-1980) developed the theory of _____. The theory stated that intelligence developed in ____ different stages. The stages are: the _____ stage from birth to 2 years old, the _____ state from 2 years old to 7 years old, the _____ stage from 7 years old to 10 years old, and _____ stage from 11 years old and up. He also believed that learning was constrained to the child's _____. Piaget influenced educational psychology because he was the first to believe that cognitive development was important and something that _____ in education.

1920-Present. From the 1960's to present day educational psychology has switched from a behaviorist perspective to a more _____ perspective because of the influence and development of cognitive

psychology at this time. Jerome Bruner was the first to apply the _____ in educational psychology. He was the one who introduced the ideas of Jean Piaget into educational psychology. He advocated for _____ where teachers create a problem solving environment that allows the student to _____, _____ and _____. In his book *The Process of Education* he believed that how the subject was _____ was important for the students understanding of the subject and it is the goal of the teacher to _____ the subject in a way that was easy for the student to understand.

Benjamin Bloom (1913-1999) believed that all students can learn. He developed taxonomy of educational _____. The objectives were divided into three _____: _____, _____, and _____. The cognitive domain deals with how we think. It is divided into categories that are on a _____ from easiest to more complex. The categories are knowledge or recall, _____, analysis, synthesis and evaluation. The affective domain deals with emotions and has 5 categories. The categories are receiving phenomenon, responding to that phenomenon, valuing, organization, and _____. The psychomotor domain deals with the development of motor skills, movement and _____ and has 7 categories, that also go from simplest to complex. The 7 categories of the psychomotor domain are perception, set, guided response, mechanism, complex overt response, adaptation, and origination.

Educational Objectives		
Cognitive (how we think)	**Affective** (emotions)	**Psychomotor** (development of motor skills, movement and coordination)
from simple to complex: Knowledge (Recall) Comprehension Application Analysis Synthesis Evaluation	Receiving Phenomenon Responding to it Valuing Organization Internalizing Values	*from simple to complex:* Perception Set Guided Response Mechanism Complex Overt Response Adaptation Origination

The taxonomy provided broad educational objectives that could be used to help _____ to match the ideas in the taxonomy. Internationally, the taxonomy is used in _____ from training of the teachers to the development of testing material. Bloom believed in communicating clear learning goals and promoting an _____. He thought that teachers should provide _____ to the students on their strengths and weaknesses. Bloom also did research on college students and their _____ processes. He found that they differ in understanding the _____ of the problem and the _____ in the problem. He also found that students differ in _____ of problem solving in their approach and _____ toward the problem.

QUIZ

1. … is the study of how humans learn in educational settings, the effectiveness of educational interventions, the psychology of teaching, and the social psychology of schools as organizations.

2. …'s theory of cognitive development states that intelligence develops in four different stages.

a) S. Freud   b) Albert Bandura   c) Juan Vives   d) Jean Piaget

3. Choose the most prevalent disability found among school age children:

a) attention deficit hyperactivity disorder

b) schizophrenia

c) seasonal affective disorder

d) agoraphobia

4. A teacher striving to alter student behavior by systematically rewarding students who follow classroom rules with praise, stars, or tokens exchangeable for different items is probably a representative of a … approach to eduction.

a) psychoanalytic   b) humanistic

c) behavioral   d) none of the above

5. The *spaced learning effect* shows that:

a) a student always performs better when there is enough space for him to study

b) students perform better on a test of knowledge about a text passage when a second reading of the passage is delayed rather than immediate

c) the procedure of learning is different depending on the space where it happens

d) if students are spaced in a particular way, they show better results on a test of knowledge

6. According to Albert Bandura, … defines a learner's belief in his or her ability to perform the modeled behavior.

7. What factor DOES NOT determine if a learner's behavior will be changed according to the model observed?

a) the learner's developmental status

b) the perceived prestige and competence of a model

c) the relevance of the model's behavior to the learner's goals

d) the subject learned

8. Which is incorrect?

a) learners who are better at goal-setting and self-monitoring tend to have lower intrinsic task interest and self-efficacy

b) perceived similarity of the model to the learner increases self-efficacy and leads to more effective learning of modeled behaviors

c) effective learners are active agents who construct knowledge by setting goals, analyzing tasks, planning strategies, and monitoring their understanding

d) teaching learning strategies can increase academic achievement

9. When … motivation deals with activities that act as their own rewards, … motivation deals with motivations that are brought on by consequences or punishments.

a) intrinsic, extrinsic   b) extrinsic, intrinsic

c) intrinsic, internal   d) extrinsic, external

10. What DOES NOT comply with motivational theories of academic performance?

a) students with mastery goals strive to increase their ability and knowledge

b) those who have performance approach goals aim at high grades to demonstrate their abilities

c) performance avoidance goals means fear of failure and avoidance of situations where one's abilities may be exposed

d) poor concentration while studying, disorganized studying, less self-regulation, shallow information processing and test anxiety are associated with mastery goals.

11. Number the steps teachers should use to influence learners' interest in the subject (according to Johann Herbart):

	Present the new material.
	Prepare the student for new material by giving them an overview of what they are learning next.
	Relate the new material to the old material that has already been learned.
	Show how the student can apply the new material and show the material they will learn next.
	Review material that has already been learned by the teacher.