Educational Theories

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As educators, we are responsible for providing quality educational experiences for students with a wide array of learning styles, academic levels, cognitive abilities, language skills and emotional problems.

To do a credible job of meeting these diverse needs, we need to be equipped with the knowledge of as many theories, techniques and strategies as possible. Since each student will present a unique challenge, we need to generate unique solutions.

The goal of this paper is to examine the attributes of six learning theories and how they may be applied to classroom situations. Each theory will be defined an a sample activity based on the tenets of the theory.

Constructivism

Constructivism is a theory about the way the human brain assembles or shapes information during the learning process. The way in which this construction occurs reflects an individual's unique cognitive abilities and the context in which the information is obtained.

An example of this can be illustrated by Gestalt's theory. This theory states that our perspective has a profound affect on the ultimate processing of information and therefore influences the conclusions we draw regarding that information. This theory states the sum total of the parts of something is distinct from the individual parts.

Each person processes information in his or her own unique way. Several people may observe the same event and come away with an entirely different perception of that event. The way our minds process and construct learning is dependent on and influenced by the prior information and knowledge we possess. In essence, we construct our learning based on the tools we have available to us at that time.

The constructivist theory would state that learning is not a passive process. It would be described as active. We superimpose our perceptions on to phenomena as we experience them. We construct unique mental pictures by synthesizing the data in our minds with the data we receive from our senses (University of Toronto).

Jerome Bruner as cited in Huitt, W. (2003) discusses several principles related to learning based on the constructivist theory. They are:

A. Instruction must be concerned with the experiences and contexts that make the student willing and able to learn (readiness).

B. Instruction must be structured so that it can be easily grasped by the student (spiral organization).

C. Instruction should be designed to facilitate extrapolation and or fill in the gaps (going beyond the information given).

Proponents of a constructivistic approach believe that educators need to factor in the prior knowledge and experiences of students and how those factors influence the task of learning. Curriculum should be "constructed" so that students can expand and develop their prior knowledge and experiences. This knowledge and these experiences need to be connected to new learning. In contrast, proponents of the behavioral approach would say that a decision should be made first as to what skills should be learned and then curriculum should be developed for that purpose (Huitt, W. 2003).

Constructivism Activity

This activity is founded on the information obtained from the website *Pathways*

Home. Some of the suggestions for lessons that fit the constructivist model include:

1. Constructivist teachers use cognitive terminology such as "classify," "analyze," "predict," and "create" when framing tasks.
2. Constructivist teachers allow student responses to drive lessons, shift instructional strategies, and alter content.
3. Constructivist teachers inquire about students' understandings of concepts before sharing their own understandings of those concepts.
4. Constructivist teachers encourage students to engage in dialogue both with the teacher and with one another.
5. Constructivist teachers encourage student inquiry by asking thoughtful, open-ended questions and encouraging students to ask questions of each other.
6. Constructivist teachers seek elaboration of students' initial responses.

Based on these suggestions, the following activity was developed.

1. Pre-reading predictions made by students based on the title

2. Teacher reads the story "What Big Sisters are For" by Thomas Doyal

3. Periodically stop and ask questions based on Bloom's Taxonomy of Higher Level

   Questioning:

Knowledge

Remembering, memorizing, recognizing, recalling identification, recalling

Information (who, what, where, when, how, describe)

EXAMPLE "Describe the setting of the story"

Comprehension

Interpreting, translating from one medium to another, describing in one's own

words, organization and selection of facts and ideas, retelling

EXAMPLE: "Tell me what big sister did to little sister at her door"

Application

Problem solving

Applying information to produce some result

Use of facts, rules and principles

How is….an example of…?

How is….related to…?

Why is….significant?

EXAMPLE: "Can you relate what big sis did to anything that happened to you?"

Analysis

Subdividing something to show how it is put together

Finding the underlying structure of a communication

Identifying motives

Separation of a whole into component parts

What are the parts or features of…?

Classify…according to…

Outline/diagram…

How does…compare/contrast with…?

What evidence can you list for…?

EXAMPLE: "How does this compare to another story you have read?"

Synthesis

Creating a unique or original product that may be in verbal form or be a physical

object

Combination of ideas to form a new whole

What would you predict/infer from…?

What ideas can you add to…?

How would you create/design a new…?

What might happen if you combined…?

What solution would you suggest for…?

EXAMPLE: "What can you infer from the story what big sis was thinking?"

Evaluation

Making value decisions about issues

Resolving controversies or differences of opinions

Development of opinions, judgments or decisions

Do you agree that…?

What do you think about…?

What is the most important…?

Place the following in order of priority…

How would you decide about…?

What criteria would you use to assess…?

EXAMPLE: "Do you agree that big sis endangered everyone by not being trustworthy?"

Another key factor that the teacher needs to consider is the use of meaningful follow-up questions that are considered probative. These techniques are designed to aid in the construction of the students' own learning process and encourage deeper thoughts about the literature. In addition, deeper questioning elicits responses that give the teacher greater insight to student thought. This is very helpful for evaluation purposes.

Behavioral Theory

The definition of the Behaviorist Theory as it applies to learning is an observable change in behavior. There are many general assumptions associated with this theory. According to information obtained from Web Quest produced by Erin C. Barret Cunia, some of these assumptions include:

1. Principles of learning apply equally to different behaviors and to different species of animals. (Equipotentiality)

2. Learning processes can be studied most objectively when the focus of study is on stimuli and responses.

3. Internal cognitive processes are largely excluded from scientific study.

4. Learning involves a behavior change.

5. Organisms are born as blank slates.

6. Learning is largely the result of environmental events.

7. The most useful theories tend to be parsimonious ones.

There should be an emphasis on behavior. Students must be active participants in the learning process. Students tend to learn best when they practice or experience the desired behavior. Evaluation should be based on measurable behavior changes that confirm learning has occurred. The repetition of habits of stimulus-response reinforce those habits. One method reportedly used to break habits of stimulus-response is to present the stimulus repeatedly until the student stops responding in the habitual way. This is known as the exhaustion method.

Behaviorism has some variations such as like information processing theory. It emphasizes learning facts and skills deemed important by administrators, teachers, school boards and other decision makers.

Behaviorist proponents include John Watson, an American psychologist who was very influential in the 1920s and 1930s. B. F. Skinner. Skinner was another American psychologist who impacted the education profession during the 1950s and 1960s.

Teaching using behavioral techniques generally involves simplifying the skills taught in to smaller segments, giving regular feedback for reinforcement, and teacher-centric classrooms dominated by lecture, drills, tutorials, etc. (Behavioral Theory).

Transactional Theory

Transactional Analysis (TA) was developed by Eric Berne. TA, is a theory of social and personal psychology. It also became a method of teaching and psychotherapy. It was considered very controversial because Berne structured his theories not only on a scientific basis, but also based on his own personal idiosyncrasies. His desire to be provocative and rebellious (a reflection of social attitudes in the 1960's) endeared him to some but repelled others.

TA has 3 aspects.

TA is a group of ideas founded on beliefs. Intuitively connected myths, metaphors and neologisms which are very helpful to people who want to understand and change their lives and other people's lives but which make more sense as morality tales than as scientific or philosophical postulates. This is the basis of TA's early popularity.

To summarize Berne's TA can be at least three things:

1. A set of ideas based on belief. Intuitively connected myths, metaphors and neologisms which are very helpful to people who want to understand and change their lives and other people's lives but which make more sense as morality tales than as scientific or philosophical postulates. This is the basis of TA's early popularity.

2. Useful techniques based on heuristic development. Modern(ized) methods of psychotherapy/educational practice based on trial and error, pragmatic findings, the creative use of techniques from other methods and generally supported by scientific research. This is the most likely path for a revival of transactional analysis in the professional community.

3. A theory and practice based on scientific research. This is the only possible basis for a place for transactional analysis in the scientific community and depends on just how prescient Berne was fifty years ago. His vision regarding the nature and importance of strokes and the effectiveness of contracts as examples, has already been demonstrated by independent researchers in the social sciences.

These three aspects of TA: metaphor, method and science, are intermingled in the minds of TA's adherents, creating puzzling contradictions for veterans and students alike. One of the outcomes of this is that many think of themselves as "in TA" but are aware of and sympathetic to only a part of the broad scope of transactional analysis.

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