

**Jerome S. Bruner: Discovery Learning**

**Overview:**

Discovery Learning, promoted by Jerome S. Bruner (b. 1915), is an example of constructivism. Built upon cognitivism, the constructivist view is that the learner creates understanding through personal experience and interaction with external stimuli. Bruner’s theory is a fusion of content and strategies in which “emphasis on discovery … helps the child to learn the varieties of problem solving, of transforming information for better use, helps him to learn how to go about the very task of learning” (Bruner, 1966a, p. 87).

**Contributors:**

- Giambattista Vico (1668 – 1744): Italian philosopher known for his *verum factum* principle: truth is verified through creation.
- Jean Piaget (1896 – 1980): Though his theory builds upon Piaget’s stages of development (Lawton, 1980), Bruner’s modes of representation can be present at any developmental stage.
- Lev Vygotsky (1896 – 1934): Vygotsky’s Social Development Theory influenced Bruner’s understanding of the impact that his history, society and culture have on learning (Lyle, 2000).

**Major Principles:**

Bruner’s early work focused, in part, on modes that represent the process of knowing. These three modes are part of development: 1) enactive - manipulative representation of past events, 2) iconic - internal imagery, and 3) symbolic - language and mathematics. Key to Bruner’s view is that “a theory of development must be linked to both a theory of knowledge and to a theory of instruction, or be doomed to triviality” (Bruner, 1966b, p. 21). Theory of knowledge and instruction must address predisposition to learn, structure of knowledge, sequence, and reinforcement. Citing the appropriateness of spiral curriculum, Bruner states, “any idea or problem or body of knowledge can be presented in a form simple enough so that any particular learner can understand it in a recognizable form” (1966b, p. 44).

More recently, Bruner criticized his earlier views (Smith, p. 2) as being too limited and his current writings emphasize the importance of narrative in learning. Bruner believes that narrative both represents and constitutes reality (1991) and “symbols, the products of cultural inventions, are the means by which we construct ourselves and our worlds” (Olsen, p. 29).

**Application:**

In the Guided Discovery model, students are provided with the environment and content to explore a pre-determined problem. Instructional support guides the learner to make a series of discoveries that lead to a predetermined goal. Guided Discovery is most often used in science and mathematics. For example, in the lesson *Discover the World Around Us*, students explore the senses through guided discussion and observation, then draw conclusions and categorize their findings. Following initial discussion, students observe a variety of teacher-selected objects and describe them. Without telling students, the teacher then classifies descriptions based upon which senses students used to describe their objects. Students actively construct knowledge but are guided, by the teacher, to pre-determined conclusions.
References:


