

An Overview of Jerome Brunner His Theory of Constructivism
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In Partial Fulfillment of the Requirements for ECI 761

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March 18, 2004

Educational reform has been a topic in the US that has literally plagued school systems across the country with the pressure of standardized tests and now the No Child Left Behind Act. With standardized instruction being the status quo for instructional theories in schools, an alternative theory of instruction exploded from the result of cognitive theories that had been around for years to date. Constructivism is an epistemology of learning fixed on the basis that reflection on experiences while constructing our own understanding of the world allows learners to formulate a more concrete meaning of subject matter. Each learner generates their own "rules" and "mental models," which are used to make sense of experiences. In the world of learning theories, Constructivism would lay on the opposite end of the spectrum of that of Objectivism. Objectivism deals more with measurable outcomes while Constructivism deals with the cognitive processes in which the learner develops his or her knowledge. Constructivism is also a very broad conceptual framework with many variations perspectives. Jerome Bruner is thought of as one of the founding fathers of Constructivism and his particular theory is one of many that lay inside of the constructivist framework.

Bruner's theory of Constructivism was influenced by the earlier theoretical research of Lev Vygotsky, and Jean Piaget. His theoretical framework supports the belief that learners construct new ideas or concepts based upon existing knowledge. The process of learning is active and involves transformation of information, deriving meaning from experience, forming hypotheses, and decision making. Through his work he presented the idea that children could be active problem solvers and were capable of exploring more difficult subjects of instruction. Along with the research of other theorists, the inclusion of social and political viewpoints of his theory of Constructivism became evident when those variables began to make a noticeable impact the learning process.

Bruner's theory of Constructivism falls into the cognitive domain. Learners are considered to be creators and thinkers through the use of inquiry, and the role of experience in leaning. The process of which how learners construct knowledge rather than the output of information is heavy in focus. Opportunities are provided for learners to construct new knowledge and new meaning from authentic experiences. Bruner developed three stages of representation which are enactive, iconic, and symbolic. None of the stages are age specific to the learner compared to Piaget's research which has a specific age for each stage.

In the enactive stage, knowledge is largely in the form of motor responses. Students may be able to perform a physical task better than describing the exact same task that has just been accomplished. This shows that the learner is more in the enactive stage of representation.

In the iconic stage, knowledge is largely more in visual images. When presented with new information, it is sometimes more helpful to people who are in the iconic stage of representation to have a diagram in order to visualize concepts being taught.

When in the symbolic stage, knowledge is mostly in the form of arbitrary words, mathematical symbols and other symbol systems. Mathematical symbols possess meanings in mathematics and language. The symbol \times and \cdot both mean multiply but can also have a different meaning in another discipline such as language.

Bruner does acknowledge that learners go through various stages of development but he does not specify learner's age at which these stages will take place as Piaget does in his theory of Genetic Epistemology. Bruner (Constructivist Theory) and Piaget agree that the learner must find the lesson useful and relevant. Piaget's learners progress from one stage to the next while Bruner's learners must extrapolate from the known to the unknown.

It is very possible for an adult to switch from iconic to symbolic or even from enactive to iconic or symbolic as opposed to going from formal operational to sensory motor. The instruction will dictate the stage learners utilize when constructing interpretations of the concept.

Bruner's Constructivism can be applied to subject matter across many different curriculums that yield the time to process results. The results are not controlled solely by the learner or the instructor each of which have specific roles in instruction that allow the learner to develop meaningful knowledge of the subject matter. By using a spiral curriculum, learners build on previous construction of knowledge to formulate more useful associations and authentic meanings. Usually learners control the process of learning due to the authentic nature coupled with initial environmental predispositions. Input and structure provided by the teacher for instruction through the appropriate environment for learners, results in the construction and rationalization of newly formed understanding of concepts and knowledge.

Bruner's Constructivist theory has been adopted and utilized for many different instructional situations. There are numerous other theorists who use facets of the constructivist epistemology when formulating theories of learning and instruction. Bruner developed a method of teaching called Discovery Learning which utilizes his theory of Constructivism. The traditional classrooms can incorporate Bruner's theory of Constructivism in a number of ways. Discovery Learning is one way that Science teachers can make use of the theory since the theory itself is somewhat close to scientific inquiry. Assessments in school systems would become more learner centered if Constructivist approaches were adopted. The learner would progress at his or her own rate to some extent while fully understanding concepts presented by the instructor. Although somewhat hard to implement in some cases, Bruner's theory of Constructivism has been widely implemented in some classroom settings while others struggle to move the theory into practice. Although his concepts are different than that of traditional instruction, due to the benefits and gains it is possible to see a greater shift towards the Constructivist framework over time.

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Type of Learning

Memorize Information	Apply Skills
Understand Relationships	Apply Generic Skills

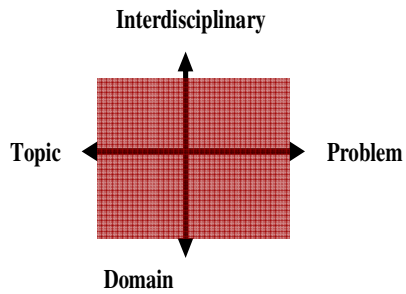
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Control of Learning



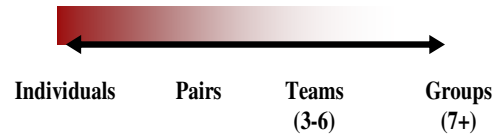
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Focus of Learning



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Grouping for Learning



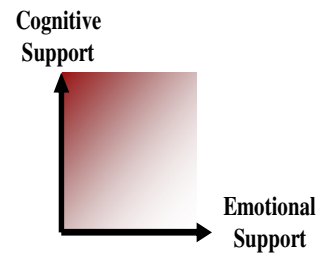
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Interactions for Learning

Human			Nonhuman			
Student-Teacher	Student-Student	Other	Student-tools	Student-information	Student-environments/manipulative	Other

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Support for Learning



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