

Common Learning theories

Instructional design in an ideal world would be a simple matter of identifying learners' needs and goals and then creating some learning materials that enabled them to meet those goals. Such a statement presupposes that some theory exists to guide instructional designers in that process. What is the theory?

Behavioural approach: Gagné (1968) who stressed that the aim of instructional design was to create the particular conditions needed for a particular type of learning. Under this behavioural approach, he described, for example, the conditions that a student needed for learning things such as rules, concepts and problem-solving.

Cognitive approach: emphasizes design based on characteristics of individual learners.

Constructivist approach: emphasizes the learner's own activities as the mechanism for learning (Elen and Clarebout, 2001).

Although many writers today espouse the constructivist approach as the only one to use, any cursory perusal of ODL materials shows that instructional designers regularly make use of all three approaches. Some constructivist writers also acknowledge that other theories have their place:

We believe that the initial knowledge acquisition phase is better served by instructional techniques that are based upon classical instructional design techniques. Classical instructional design is predicated upon predetermined learning outcomes, constrained and sequential instructional interactions, and criterion-referenced evaluation (Jonassen, et al., 1993). This judgment would seem to be supported by the practice of instructional designers.

Following page presents a summary of some devices and related theories.

Some Common Devices Related to each Type of Theoretical Approach

Type of Theory	Learning Devices Used
Behavioural	<ul style="list-style-type: none"> • learning objectives stated • tasks broken down into small steps • most tasks have clear right or wrong answers • learners assessed against the stated learning objectives • the learning package prescribes what is to be learnt
Cognitive	<ul style="list-style-type: none"> • learning objectives stated • task broken down into small steps • learners assessed against the stated learning objectives • a wide variety of tasks, but within the scope of the stated objectives • material is chunked into small, meaningful pieces • mnemonics are used to aid memory • advance organizers are used to help learners see the structure of the topic • simplification of real-world situations • the learning package tends to prescribe what is to be learnt
Constructive	<ul style="list-style-type: none"> • learner choice of task or situation • authentic, real-world tasks • case studies • complexity of the real world presented in the tasks • collaborative learning tasks • opportunities to learn from observing others (e.g., trainee teaching as observer in a classroom) • the learning package tends to be open-ended in terms of what is to be learnt • self-evaluation rather than formal assessment