Foundations of eLearning Design

The Four Instructional Architectures

eLearning Architecture

Receptive

Directive

Guided Discovery

Exploratory

www.CreativeMediaOC.com

26632 Towne Centre
Suite 300
Foothill Ranch, CA 92610
949.420.3716

creativemedia™
orange county

The Four Instructional Architectures

Instructional systems design (ISD) is design science used to build educational products that are able to achieve practical goals. A systematic process involving planning, development, and testing, along with the application of scientific and technical principles results in products both functional and engaging.

Instructional designers often base their work on several different theories about the learning process, and typically rely on one of four corresponding instructional architectures, first defined by Ruth Colvin Clark in 2000: Receptive, Directive, Guided Discovery, and Exploratory.

Although many courses are based on two or more architectures, one usually becomes the dominant design model. The architecture(s) most appropriate to any given instructional situation depend upon both the goals of the training and the background knowledge/skills of the intended students.

Receptive Architecture

In this scenario, the method of instruction provides information that is merely **absorbed** by students, and **minimal interaction** occurs, for example, in the case of linear video presentations or live lectures. Course designs that employ Receptive Architecture are relatively low-cost and simple to design. They are best suited to simply <u>informing</u> learners and are applicable to any audience. Although the oldest of the four architectures, this architecture is still widely used, in both traditional and eLearning settings.

Directive Architecture

This type of course, based on psychology's **behavioral principles**, tends to break information into small "chunks." Lessons may include definitions, examples, practice exercises, and rules. Short, **sequenced** lessons build from easier concepts to those that are more complex. The use of **frequent** questions, combined with prompt **feedback**, generate learner interaction. Directive Architecture is well suited to training inexperienced students on <u>procedures</u>. Design complexity and development costs are both moderate, contributing to the widespread application of this approach.

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Guided Discovery Architecture

When training on **principles** is the primary goal, a Guided Discovery approach, where learning is assumed to be an active constructive process, is appropriate. Since learning through **simulations and problem solving** (combined with **support**) is the paradigm here, learners should have at least some prior familiarity with the topic being covered. Reference materials, best practice models, or tutors often accompany an immersive, job-like scenario. As a result, design complexity and development cost are both fairly high.

Exploratory Architecture

Within this methodology, students are free to access a great **variety** of information resources. The wide availability of content on the Internet makes such materials accessible to learners almost anywhere, and the role of the instructor is to **enable** highly **learner-controlled exploration** by organizing a rich ecosystem of sources that is easily navigated and searched. Students with some level of prior knowledge are thus able to locate and learn the principles and procedures they need to know. This **most interactive** of instructional design models has moderate costs and design complexity.

Other Resources

- SCORM Watch
- PowerPoint to Captivate: A Step-By-Step Guide
- Task Analysis for Instructional Design

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