Interactivity as the Key to Online Learning

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INTRODUCTION

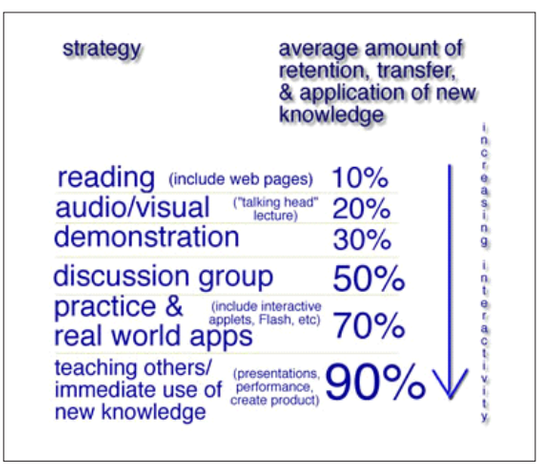
What does it really take to "go online?" Fortunately, more instructors at all levels have realized it is a great deal more than simply uploading a syllabus or even digitizing endless hours of video lectures (Carnevale, 2000; Ko & Rossen, 2004).

BACKGROUND

Instructional media, the "stuff" we use as we teach, can be thought of in two ways: (1) the materials we create (handouts, graphics, etc.), and (2) the medium (or media) we choose to help us deliver the instruction. The use of the word "deliver" here is not used in a negative sense, but rather as it applies to how we communicate with our learners.

A major part of our work as educators is to help learners retain new knowledge and transfer it to other contexts. Take a look at Figure 1 (based on Edgar Dale's original work in 1960).

Figure 1. Comparison of strategies for learning, retention of new knowledge, and interactivity



Consider how much traditional adult learning defaults to lecture and independent reading! We do this because adults will tolerate this method and yet you can quickly see that new knowledge gains are most likely to occur when learners have the opportunity to interact with peers, the instructor, and with the new knowledge through projects and real-world applications of the new knowledge.

Lecture and independent reading alone are fine in some contexts, but particularly in distance learning, the text-heavy distance learning course should be supported and enhanced with other methods to create a rich context for learning on many levels. Designing courses in the online environment requires careful attention to this detail: too much lecture (i.e., too much text, too many PowerPoint slides, too much "talking head" video) means you have designed something that is little more than a glorified correspondence course. If you are designing true learning environments, you will want something of a lot more value than that!

What sets true distance learning environments apart from mere correspondence is sound teaching practices. In the online environment, teaching translates directly into *interactivity*!

The content of the course—that is, the information, concepts, ideas, new knowledge, skills, and so forth—are (or should be!) available to students in the course materials, whether these are text pages or video (and all combinations in between). Teaching in these environments then is much more about guiding, providing feedback, asking rich questions, and managing the virtual communities of learners to promote the richest learning mix (see Jonasson & Kwon, 2000; Levin, Waddoups, Levin & Buell, 2000; Smith & Winking-Diaz, 2004).

As we revisit Figure 1, we can see that teaching strategies that include higher levels of interactivity promote higher levels of retention and transfer (i.e., learning). In fact, there are three different aspects of interactivity we must consider as we design for online

teaching and learning. I call these the "Three Ps: Program, Peer, and Professor" (see Figure 2).

INTERACTIVITY WITH THE PROGRAM

Program interactivity is something the teacher-designer deliberately designs into the online course. Program interactivity here refers to the amount of engaged time a learner spends with content-related elements of a course, such as Web pages, PowerPoint slides, or simulations. It is also about the tasks a learner is expected to tackle to meet the learning goals (Lander, 1999).

A rule of thumb for balancing the low, moderate, and high levels of program interaction is to consider the range of knowledge transfer and retention. Next think about how much the learner should learn from *text (reading)* in a course and how much from *doing (interacting with a simulation, animation, etc.)*. You get the idea very quickly that simply transferring a syllabus to a Web page is not what online learning is about!

INTERACTIVITY WITH PEERS

Most courses offered in a distance learning environment lack in building effective interactivity with peers (virtual communities). This is proving to be a grave mistake as learners become more and more familiar with chat rooms, e-mail, and discussion boards in casual settings. Students find they need to interact with each other and share their common experiences. Good teachers would never think to tell students not to talk with each other about the course, their projects, or ideas generated during a class. Why would we leave out this critical feature of adult learning?

For the majority of online courses, the task is to encourage a lot of discussion and feedback. This is not a stand-alone correspondence course! Learners (usually) need to share ideas and work in small teams to solve complex problems.

There are a few unique exceptions. Some recent instructional design work I did with faculty developing farm management and finance courses pointed out that most farmers do not wish to discuss their financial planning with others, unless the discussion is on a generic sample. But further constraints on these types

Figure 2. The three Ps: Levels of interactivity