

Matching an Approach to Your Educational Need

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If we posit that there are two ways to accomplish the conveyance of our content (linear and interactive, or HIVE), what criteria should we use to determine which is best? First of all, linear content is much easier to build and use than interactive content. If time is at a premium, then linear content will likely get the nod. If money is an issue, linear content will again get the nod, as most HIVE environments are expensive to set up and administer. When outcome is the prime mover, however, then interactive content may win out. Realistically, when learning outcomes are somewhat balanced, linear content will almost always prevail as we are used to it and it is less expensive and less time-consuming to use.

It follows, then, that we should be sure of the potential advantages (or disadvantages) of a HIVE before we engage in its use. For some things, a HIVE works very well, while other types of content or instructional approaches are not as appropriate.

Reasons to Consider Highly Interactive Virtual Environments

Here are some things for which HIVEs, games, or other interactive frameworks are well suited:

To create a sense of presence (virtual worlds)

To create a sense of presence, virtual worlds are great. Not only are there physical impacts, like being able to explore a 3D world, but there are emotional attachments and a social sense of belonging that can also accrue from these environments.

To easily access diverse real-world communities (virtual worlds)

Real communities can exist in virtual worlds. One can visit, or even become a part of, these communities, giving a real-world experience that would cost thousands of dollars and require travel, lodging, and the related problems of international travel. For example, if one wanted to become immersed in the culture of Central America, it would be easy to do in a virtual world, especially a broadly based one like Second Life, where there are such enclaves available, frequented by people from that culture, speaking and interacting in Spanish.

To increase student engagement (games)

Games or simulations, either as standalone devices or as part of virtual worlds, are designed to maximize student engagement. They are excellent choices when the content itself does not seem to interest the student and when the student requires additional motivation or engagement to be willing to begin to deal with the content.

The scalability of games make them most flexible in about any learning environment. A game can last less than 10 minutes, or as long as an entire semester, depending upon the needs of the instructor.

To provide access to labs and props (simulations or environments)

When content is dynamic, as opposed to linear, simulations or environments, either standalone or as part of a virtual world, work well. Remember that dynamic content is composed of actions, results, and connecting systems. These can be easily modeled in a virtual environment.

To provide a way for students to practice the use of skills that are critical (educational simulations)

Some content must be applied in a non-failure environment. For example, if you are teaching students how to most effectively shut down a nuclear power plant in an emergency, failure in real life is not an option. Simulations must provide strong enough correlation to the real world that practice in them constitutes actual practice.

Cost Considerations

As mentioned previously, HIVEs can be expensive to implement and maintain. Cost will, of course, be influenced by game or simulation complexity, length, level of customization, and support. For example, if your university wanted to have a presence in Second Life, you could do it either by renting space, purchasing a small piece of property on the mainland, or buying an island. Cost for buying an island (the best choice for autonomy) would be upwards of \$3,000 to purchase the island (equivalent to buying a dedicated server) and about \$300 per month maintenance. Obviously, this is not something that an individual instructor would set up, but the total cost would be far less than some virtual classroom environments like Blackboard Collaborate or others of that genre. Outfitting the island with buildings, classrooms, and equipment would entail further costs, or could be done by letting the students learn and do it (another opportunity for learning).

While there are good reasons for using HIVEs, consideration of their use should not be undertaken lightly. Due diligence needs to be given to potential educational outcomes and appropriate matching of needs with HIVE, simulation, or game capabilities.