SimBLs™: The Application of Learning

The learner's ability to apply in real life what he/she has learnt is probably the best indicator of effective learning. An effective approach to help learners develop this ability is to use Simulation-based Learning Objects (SimBLs™)[1], a concept Tata Interactive Systems has pioneered. This article explains how.

Sportspersons spend hours every day practicing, honing their skills to perfection, in preparation for the actual game or match. They don't want to leave any stone unturned. This is because there is so much at stake on the real occasion.

It is no different in business and in real life. If anything, the stakes are higher and the margins for error, lower. That being the case, would it not be important for learners to be able to practice and sharpen their skills before facing the real world? How would they do it? Is there something developers of learning can provide these learners? Does it always have to be that the theory happens in the learning product and the application happens only in real life? Can there not be a product that mirrors real life and enables the learner to practice in a failsafe environment before going into the real world? In the world of online learning, one viable answer seems to be simulations.

What are simulations really?

There are many definitions that are in vogue in the online learning industry today. Here is a definition that is the basis for this article's argument.

A simulation is an interactive application that allows learners to model or role-play in a real-world process or system, enabling them to practice skills in a failsafe environment.

Simulations are closely associated with the constructivist view of learning, which emphasizes the need for individuals to create their own models of knowledge. Therefore, simulations can be viewed as cognitive tools.

The concept of simulations as an instructional technique has been in existence for a long time, especially in the form of games, models, and role-playing. The US Air Force is one of the oldest and most prominent users of simulations for training pilots and flight crews, and they have been fairly successful in this. The use of simulations for learning has emerged from the need to provide hands-on practice. Besides, simulations promote higher order thinking skills, such as decision making, analytical reasoning, and problem solving.

When sportspersons practice, they do not practice all components of their game at the same time. Consider a baseball player. He will practice his pitching separately. He will practice his batting separately. And he will practice his catching separately. Even within this, he will practice different aspects separately. The reason for this is not difficult to see. A baseball player needs to be good in all aspects of the game to be successful. Therefore, he needs to concentrate on all aspects separately. On match day, all these come together. "Practice in parts, play together" could well be their leitmotif.

Once again, the comparison with real life does not seem inappropriate. In life, there are many concepts one learns and applies together. However, will it not help if one can practice the concepts separately? Will it not help if a learner can apply different concepts deeply so that he/she can understand the nuances of that concept well?

This is where traditional simulations may fall short. In view of their focus on creating the real world in its entirety and magnitude, traditional simulations can be vast, cumbersome, rigid, and expensive. Fidelity to reality tends to be the dominating theme. Which works fine, except that it does not quite help learners focus on the smaller concepts and master them.

The need of the corporate world seems to be the development of simulations that are smaller

in scope and are more focused towards a particular concept than an overall world, while retaining the flavor of authenticity that simulations carry. It is this thinking that led Tata Interactive Systems to develop the concept of Simulation-based Learning Objects (SimBLs™).

What are SimBLs™?

SimBLs™ simulate specific topics with a high degree of fidelity to concept, thus enabling focused learning. They are 'byte-sized' learning objects that replicate real-world scenarios, with their multiple variables and the corresponding relationships. SimBLs™ are interactive, self-contained chunks of learning content.

Attributes of SimBLs™

- **Clearly defined learning intent**

Each SimBL™ is based on one or more concepts, derived from the identified learning objectives. Hence the learning intent is palpable and transparent, ensuring that the learning is direct.

- **Imitation of a real-life process**

For a SimBL™ to be a true practice experience, the situations in it need to mimic real life. A real life process however, provides far too many variables, known and unknown, which one has to deal with before making decisions. A SimBL™ allows learners to deal with only some of those real-life variables. The other variables are controlled by the system and thus are visible to the student, so that the learning for these is not lost. Limiting the number of variables controlled by the student to a few has a significant advantage—retaining the learner's focus on the instructional intent. This is what a SimBL™ does.

- **Decision making**

Decision making is the crux of a simulation, and therefore, of a SimBL™. A SimBL™ urges learners to make decisions—either numeric or non-numeric. This is the very essence of application.

- **Role-play**

Each SimBL™ has a detailed story line or a case. Learners are assigned a decision-making role in that case. The roles assigned to the learners are similar to the roles they are likely to play in real life in the future. Thus the relevance of the SimBL™ to the learner's real-life situation is established, making it more desirable for the learner to learn through a SimBL™.

- **Time line**

The passage of time is an important attribute in a SimBL™. Each SimBL™ progresses through pre-defined time cycles or phases.

- **Learning by committing mistakes**

SimBLs™ provide an opportunity for learners to commit mistakes, by providing a safe environment. This helps the learner understand the consequence of these mistakes, and thus (hopefully) not commit such mistakes in real life later on.

Do SimBLs™ work?

SimBLs™ are bound to work. Here are some reasons:

- SimBLs™ enhance retention by changing the focus to application, not recall and reproduction.
- SimBLs™ provide optimal motivation to the learner by capturing attention, providing relevant scenarios, creating the confidence to safely, and successfully apply a certain concept and providing the satisfaction for a job well done. In other words, they cover the ARCS model of learning—Attention, Relevance, Confidence, and Satisfaction.
- SimBLs™ can enable learners to experience spontaneous insight.
- SimBLs™ enable learners to learn from their mistakes, because it helps them assess where they went wrong and why.
- SimBLs™ provide feedback on performance, and the consequences of the learners' decisions.

SimBLs™ are bound to work. Because "practice makes perfect."

([1] SimBLs is a trademark of Tata Interactive Systems.)