



**Simulation-based Learning Objects
(SimBLs™) at the University of
Phoenix—winner of the APEX 2004
Award of Excellence**

Learning by doing

University of Phoenix (UOP) Online is a division of the University of Phoenix, which offers undergraduate (Bachelors), graduate (Masters), and doctoral (PhD) level programs to over 125,000 students in over 120 campuses across the USA, Puerto Rico, and Canada. UOP Online began operations in 1989 by modifying campus-based courses for delivery via the Internet. They offer accredited degree programs at the undergraduate, graduate, and doctoral levels in Business Management, Education, Information Technology, and Nursing. Today, they have more than 63,000 on-line degree-seeking students and 2,600 faculty members.

THE NEED FOR E-LEARNING

UOP Online wanted to increase both the instructional efficiency and the ability of its instructors to handle larger classes without affecting the quality of learning. They wanted specific tools that would enable them to cover "difficult-to-learn" concepts, simultaneously ensuring that their model of real-world and application-focused learning was not diluted.

HOW OUR SOLUTION HELPED

In-depth analysis by the Tata Interactive Systems team led to the idea of Simulation-based Learning Objects.

Pilot learning objects in three topics in Economics-Market Structures, Cost and Revenue Curves, and Monetary Policy were developed. A comparison of the results with two similar standard, non-pilot classrooms revealed:

Increase in instruction efficiency	30%
Increase in level of learning	35%
Increase in relevant discussion	40%
Decrease in email queries	35%

Based on the proven performance and increase in efficiency exhibited by the SimBLs™, UOP Online decided to adopt the new approach. Tata Interactive Systems developed nearly 100 such simulations in a phased manner.



"At the start of this relationship, we gave Tata Interactive Systems a problem statement instead of an RFP. The team from Tata did a brilliant job of analysing the problem, and came back with an innovative simulation-based solution."

Brian Mueller
Executive VP and CEO
University of Phoenix Online

SimBLs™ are learning objects designed to deliver key objectives central to a particular concept.

- Small, self-contained chunks of learning, which simulate specific topics by substituting, fidelity-to-concept for fidelity-to-reality.
- Independent Flash-based learning objects that can be served off the Web, or mailed to the learners as executables.
- Suitable for use in a variety of delivery media and curricula, ranging from traditional face-to-face teaching to live synchronous on-line environments.
- Provide a comprehensive learning experience by building uncertainty and unpredictability into the simulated environment and offering a range of options to choose from.
- An opportunity to review decisions, and alter them.
- Offers instant feedback for learners, which discusses what their decisions were, what the optimal should have been, and the reasons.
- Option to integrate with Performance Measurement Systems, if required.

Other advantages of simulated learning are:

- Reduction in training time, and the overall cost.
- Training on expensive equipment can be done virtually.
- Enables training on hazardous procedures.

TECHNOLOGY USED

Macromedia Flash 5 used to develop the training program.

SOME SAMPLE SCREENSHOTS

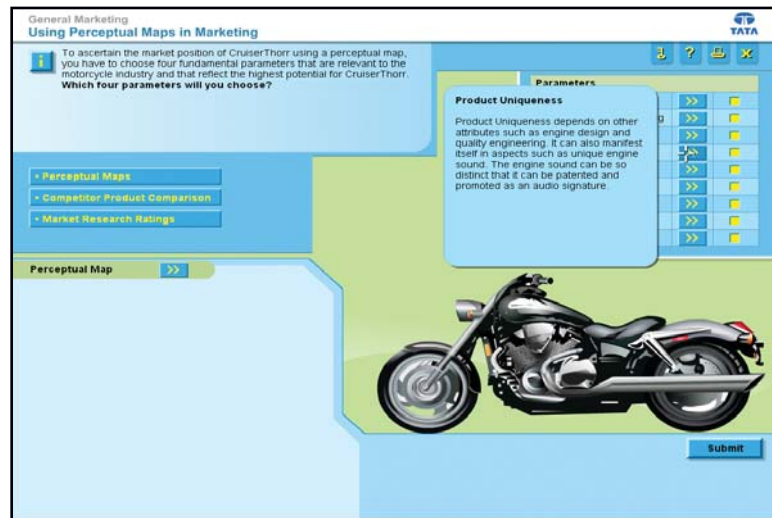
These screenshots offer a brief glimpse of the UOP simulations. To experience our products at work, you may view the demos by registering online at:

www.tatainteractive.com.

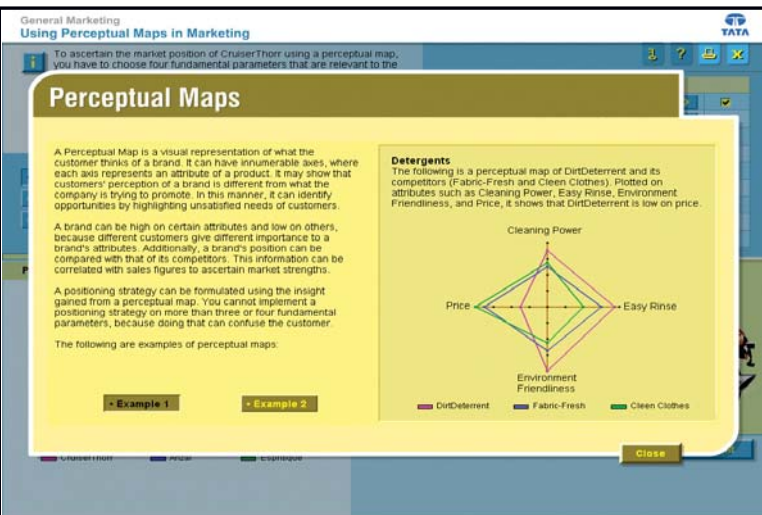
The SimBLs start with an introduction to the concept and a description of the scenario.



Simulations involve interactive learning. This screenshot depicts a simulated screen with interactivity.



Instant feedback for interactions discusses what the users decisions were and what the optimal solution should have been.



Simulations

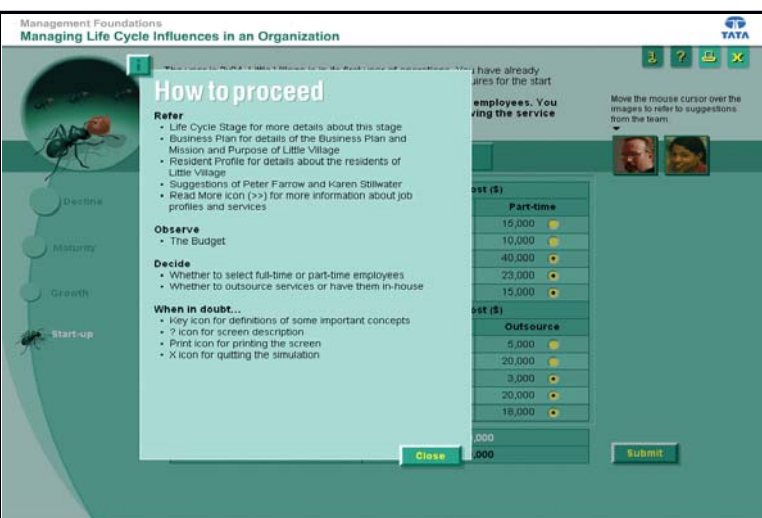
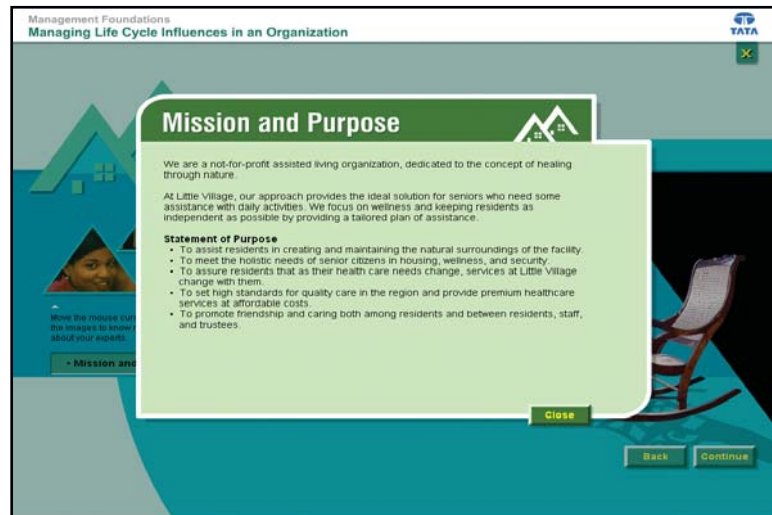
UNIVERSITIES

The courses covered include:

- Marketing management
- Finance
- Operations management
- Accounting principles
- Human relations and organizational behavior
- E business principles and practices
- Micro and macro economics
- Legal environment of business



- Statistics and research methods
- Information management in business
- Cases in decision making
- Project management in the technological environment
- Strategy formulation and implementation
- Technology transfer in the global economy
- Applications of technology management
- Business ethics



- Management of R & D and innovation processes
- Management foundations
- Leadership
- Contemporary auditing
- Health care
- Systems thinking and performance management
- Critical thinking