

Seriously Fun

– Business Simulations for Real World Engaging Learning

by Jeevan Joshi



Games and game technology are poised to transform the way we educate and train students at all levels. Education and information, skill training, even political and religious beliefs can be communicated via video games. But these games and repurposed game technology, collectively called "serious games", have yet to be fully embraced by educators. Serious games, like every other tool of education, must be able to show that the necessary learning has occurred. Specifically, games that teach also need to be games that test. Fortunately, serious games can build on both the long history of traditional assessment methods and the interactive nature of video games to provide testing and proof of learning.

E-Learning & Training talks to the experts behind the launch of a new online business simulation tool for discovery learning in Australia –

Paul Vorbach (Director – AcademyGlobal)

Thomas Lihnert (Chief Technologist – Tycoon Systems)

Jeevan Joshi (Principal Consultant – KnowledgeWorking).

TAMAG: When and why did you first become involved in business simulations for learning?

PV: I first experienced business simulations as an undergraduate student studying in the UTS Bachelor of Business degree program in 1989. 10 years later, I again used a business simulation as part of the Oxford Advanced Management Program in the UK.

TL: I developed my first business simulation in 1992, while I was graduating at the University of Cologne, Germany. That was a desktop application, able to simulate the business of a car manufacturer. The product was called Cabs (Computer Aided Business Simulation) and in the following years it was used by many Universities, Corporations and Individuals.

JJ: I experienced the effectiveness of simulations in 1995 as an HR Manager for Boots Pharmaceuticals, where it was part of an assessment centre for Sales Managers. It has however been in the past 2 years that I have observed widespread adoption of online simulations. This can be attributed to learning professionals looking for more effective and engaging learning tools, increased availability of broadband, and reduction in costs for developing simulations.

TAMAG: When do you think simulations are effective in learning?

PV: I believe they can be highly effective in the right context, but not often as a substitute for face to face classroom or coaching methodologies. As an adjunct to face to face, as a means of reinforcing earlier learning and a means of adding variety and interest to more traditional means, simulations can be highly relevant and effective.

JJ: I think it was Confucius who in 450 BC said: "Tell me, and I will forget. Show me, and I may remember. Involve me, and I will understand". I certainly won't recommend simulations for soft skills such as interpersonal skills training. Business simulations work best for accelerated learning and where the learning involves some complexity. Let me explain.

Much of what we do at work is a complex interplay of many variables, which we need to assess quickly, choose from many options and act accordingly. In addition we need to react and adjust our actions according to external market factors, such as what our competition does. Simulations are unique in allowing trainers to replicate some of these complexities and provide contextual learning experience.

Secondly, simulations, especially online simulations, provide immediate corrective feedback. For example, in IndustryMasters business simulation, the participant has couple of minutes to analyse why the company profitability (and share price) is declining, and take corrective actions in terms of pricing, marketing, production capacity, financial health etc. Whether their corrective actions have worked will be apparent in the next couple of minutes when their company share price increases or decreases. This allows for an acceleration of Kolbs experiential learning cycle.

Online business simulations open up new exciting options to learning professionals, such as use in remote coaching managers and company wide learning events, where employees can compete against each other from their work desks, which allows for lot of fun while learning.

TAMAG: What are the design considerations for developing a business simulation? How can the effectiveness of learning be assessed?

JJ: There is quite a bit here including instructional design, usability, game design etc, so let me focus on some important practical design considerations for business simulations. One of the early decisions is the level of complexity you want in the simulation. Ideally you want a simulation where the level of complexity can be varied depending on the audience. Good design will also encourage the growth of learner responsibility, initiative and decision making. Finally a good business simulation design can be used in a variety of the learning settings including as part of classroom training, individual and team online play.

TL: You need to decide about the platform (desktop app or browser based), the format (single- or multi-player), the industry sectors and the scope (operational or strategic). Ideally the score evolution over several simulation rounds should reflect the learning curve. A simulation score based on cumulative economic profit is a good way to weight the outcome of all decisions according to their success contribution.

TAMAG: What issues or challenges do educators face introducing simulations into the learning environment?

PV: Three challenges (in order of significance); reliable and appropriate hardware technology and web access, realistic time management so as to avoid either rushing or excessive allocation to the activity, and finally participant comfort and familiarity with the basic technology used to access simulation.

JJ: It is only a matter of time before business simulations will be adopted by educators. The Games Developers Association of Australia estimated that in 2008, 88% of Australian households had devices for playing computer games. 71% of these households had more than one device. The usage is not restricted to the younger generation either with 70% of parents in games households using the devices. The point being that learners are more ready for learning through business simulations than we think. Based on my experience, educators will be pleasantly surprised at the support they will receive from management, who in most cases intuitively understand the effectiveness of business simulations.

As with any new tool, it will require a bit of effort from educators to explore and become comfortable with business simulations. A good

place to begin is to gradually introduce business simulations in their current classroom offerings. Cost is certainly a consideration but cost effective business simulations and tools to build them are now available in the market. On the other hand educators should make sure that business simulations are used appropriately.

TAMAG: Can you give some examples where online business simulations have provided effective learning outcomes?

TL: Large Business School competitions for IIMA and IIFT, Business Simulation Seminars for Siemens USA, Business Simulation Events to RS-Components

JJ: A large global engineering company includes online business simulations in its management development workshop for high potentials, to develop entrepreneurial and strategic management skills and provide an engaging and challenging experience for the participants. On the first day, after the facilitated session which covered strategic business concepts, teams competed in the Automotive industry simulation. The teams deployed their initial seed capital of \$100 million and expanded as revenues grew while maintaining profitability. The pace of the simulation was slower to allow the teams to analyse product, finance, inventory data and make strategic decisions. On the second day, the teams played a five year Machinery industry simulation at a much faster pace. The teams enjoyed the fast paced and challenging simulation while making strategic leadership decisions. Post workshop feedback indicated a high level of satisfaction with business simulation as a learning experience.

We recently provided an online simulation for a learning event for a leading business school in which 350 teams and 1000 participants competed. A business simulation fortified the management concepts and the basics of finance.

Tycoon Systems develops business simulation technologies with a specific focus on educational business games for entrepreneurs and business students. These highly interactive designs convey realistic and challenging business games to empower individuals to play their role as an entrepreneur in a virtual environment as an intense training process. These virtual business platforms are perfect for the early stage entrepreneur or the business student. Clients include individual users and large business schools using a variety of packages and simulations. Users of the Business Simulation Games, experience the fundamentals of strategic management within their own, interactive virtual economy. Players develop a strategy, undertake an entrepreneurial start-up and compete with each other in a real-time multiplayer competition.

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