Business Simulations: An Effective Way of Learning

What is Simulation?

Computer-based simulation can be described as 'an online re-creation of a real business environment for the purposes of learning'. Users assume the role of a manager or supervisor and make decisions in the simulation based on that role. The decisions taken by users determine the outcome of the simulation - multiple outcomes are possible depending on the decisions taken. The simulation scenarios are based on real-world business environments, the decisions on typical business issues and the outcomes of decisions on analysis and research of real companies.

Simulations can be designed to develop a wide variety of behavioural and technical competencies. For instance, users may be asked to lead a major change effort, determine strategy for a newly merged organisation, make financial decisions for a start-up company, and develop many behavioural skills such as influencing, leadership, coaching, critical thinking, team-working, remote working, etc. Simulations can be used to analyse and understand the whole organisation, a specific initiative or process, the future state following restructuring, required roles or functions, specific performance tasks, to plan and test strategies, models and reactions, to communicate, provide context, energise, and engage people, to assess how people are performing a set of behaviours or tasks with a new initiative or process - all in a fun learning environment.

What makes Simulation supported Learning different from other methods – and when should it be used?

Computer-based simulation supports two of the key criteria in adult learning and education – adults learn by doing and learn by applying and testing experience against new learning. Simulation requires participants to test points of view and techniques and open these to the scrutiny of team-based decision-making. The consequence of each decision provides a learning opportunity to explore the impact of the decision. This is quite different from the traditional “input followed by check the understanding” in more traditional training which has a proven lower success rate.

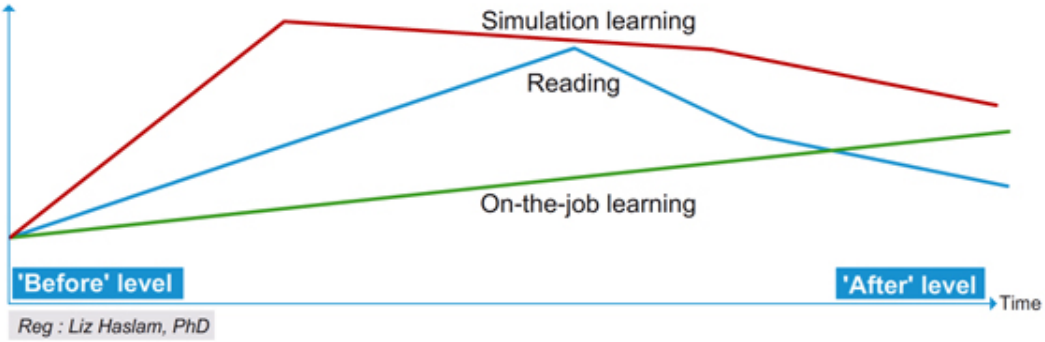
Traditional case studies can be both useful and interesting as examples, but they always deal with a past that is changing faster than one can write up the case and where there is little chance of assessing the impact of different decisions. Computer-based simulation is ideal as a training tool when the learning objectives make it difficult, or even impossible, to choose a concrete answer to a situation. Good examples are

"Strategy" (Market Share or Revenue?) or "Change" (to what?), where many roads might lead to a desired future! Simple tasks with exact answers (Procedure Training) can also be simulated with success, e.g. through e-learning, a method that may provide great savings on the training budget.

The advantages of using simulation can be summarised as follows:

A. For the participants:

a) **Speed and retention of the learned material.** Research in the USA (eg Corporate Universities, Meister, Dr. Liz Haslam, Ph.D, Gartner Group) has shown that both understanding of the problem and retention of the learned material increase dramatically when using simulation. As Galileo said: "You cannot teach a man anything – only help him find it for himself" – and that is exactly what simulations do. Retention of lectures after a week was found to be 5% and after demos 30% - and falling; retention after simulation is 75%+, and staying high. Simulation is revolutionising training in the Medical Industry, the Military, Space and Aeronautics. Pilots, trained in Flight Simulators, can take to the air with passengers *without* air-time on their own. In business people obtain operational capacity faster and with fewer mistakes than before, both characteristics of major economic impact.



b) **Adults learn by doing**. It is well recognised that adults learn from 'doing' and 'repeating', drawing on their own experience. However, this may close the mind to thinking creatively. Learning new concepts can be a lengthy and costly approach and unfortunately be based on "what we used to do". This is not sufficient today! Simulations, executed in teams, help people work together, exercise new learning, real-time and risk-free, before getting entangled in costly and time-consuming experiments in real life.

c) **Activating, concentrating on what counts.** People have short attention spans. Simulations are an excellent way of keeping them active and awake. Through a team-based approach the attention span stays at top-level, eliminating the digressions during lengthy lectures and moving a large part of the learning towards 'let's do it' – but risk free. The computer makes sure that complex scenarios can be practised and that the evaluation of results is fast and automatic, saving on precious training time.

B. For the organisation

a) **Organisational Learning**. The objective of employees attending training programmes is to improve the creative and operational capacity of people as a resource. As the goal of all organisations is to ensure longevity, CEOs must find smart ways to manage the bottom-line - revenue and cost. Unfortunately these two objectives interact counter-productively, as unskilled people do a bad job, minimising earnings potential. Training solutions and learning, found in one part of the organisation, must therefore be transmitted to other parts of the company, effectively and in a timely manner. Simulations have a proven effect as both a knowledge repository and a highly effective way to change behaviour, that is superior to other methods.

b) **Ideas-creation**. All organisations have a super-brain - the composite brain of the employees! A well-designed simulation can be used to provide learning in best practice, log possible new solutions and to channel the experience and flow of ideas.

c) **Fewer mistakes**. Organisations usually share experience, consultant's advice and other newly acquired knowledge through manuals, web-sites, rumours and presentations, all with questionable efficiency due to the media, timing and lack of discipline! Simulations play an increasing role by placing the users in a series of up-to-date simulated situations with immediate reward of the preferred behaviour – and punishment, if necessary. The economic impact can be substantial: Mercury Communications UK eliminated 70% of project errors, and ABB reduced the project error-costs from $225M to $90M in 3 years.

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Other Tangible Benefits of using Simulation

- **Simulations are FUN.** Compared to traditional 'talk-and-chalk', simulation-based learning is activating and dynamic. Experience shows that the fun and the competitive element have a substantial and positive influence on the learning process.

- **Early implementation of learning with bottom line impact on the business**. It is possible to create a major simulation in a few months (and a small one in weeks) and change existing ones (content and logistics) in days, supporting immediate conveyance of new material.

- **Design can start small and simple** and be extended in phases into major learning experiences as the need arises and time allows. The work that goes into the initial design and implementation will constitute a *preserved investment* that can be used as a foundation for further development.

- **Customers' own values, norms and Balanced Scorecard** can be implemented through the simulation. This leads to less waste and confusion through targeted individual and organisational learning.

- **Projects can be steered straight towards success, at huge savings,** since the learning has been built into the design and already been practised - just like using a flight simulator.

- **Improved Team-work** through the need to co-operate during decision taking**.** Users learn from each other as well as from the simulation and the coach, and 'repeat mistakes' can be avoided, with improved commercial dynamics as a result.

- **Changes in the business environment** (new product, services or operational conditions) can be integrated into existing simulations and disseminated into the learning environment for immediate practice in a matter of hours.

- **Standardisation and sharing of simulations** will improve the training economy over time, as other simulations can be imported, or exported, into the existing training portfolio. These simulations may originate within the company or come from other companies.

- **Integration with a customer's present Training Approach** is straightforward, increasing the value of any investments made so far.