створювати ієрархічну групу, що автономно працює відповідно до лінійного типу організації проекту. З іншого боку, він може координувати окремі дії учасників відповідно до матричного типу організації проекту.

Для формування компетентностей майбутнього фахівця навчання доцільно здійснювати, реалізовуючи різного роду проекти, зокрема соціального та екологічного значення. Крім того, забезпечення якості вищої освіти має супроводжуватися взаємодією з ринком праці, а фундаментальна наука має підтримуватися прикладними дослідженнями.

Щоб студенти могли досягти реального успіху в житті, навчання має бути зосереджене на розвиток креативності, уяви, ініціативи, вміння працювати в команді та проявляти лідерські якості. Компанії-працедавці мають отримувати команди фахівців, здатних ефективно організовувати виконання завдань у реальних проектах.

ВНЗ можуть готувати майбутніх фахівців реалізовуючи проектно- орієнтоване навчання, яке не має на меті повну заміну традиційної освіти, а лише гармонійно доповнити її практичною складовою, що дасть змогу студентам закріпити отримані протягом семестру знання, застосовуючи їх на реальних проектах.


**ENHANCING QUALITY OF HIGHER EDUCATION DELIVERY AND OUTCOMES WITH THE USE OF COMPUTER BUSINESS SIMULATIONS**

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This paper discusses the mechanics and virtues of using a computer simulation in business management training in higher education.

It is an indisputable fact that advances in the development of information technology - including the Internet - have in many ways, presented new opportunities for the enhancement of the learning process at all levels of education. Mediating technologies, no longer the exclusive province of departments of continuing education is blurring the boundaries between
distance education and campus-based instruction\textsuperscript{12}. These improvements can be grouped into those delivered in distance learning scenarios, on site (face-to-face) and in blended learning.

The number of business simulations or games has blossomed over the almost sixty years since the introduction by the American Management Association of the first business game. Today most reputable business colleges and universities employ at least one simulation or business game during the course of student preparation. Simulations are considered to provide – beyond an engaging environment for learning business principles – excellent opportunities for students to interact, learn and understand the dynamic nature of the business world. They also provide an opportunity to practice decision-making and leadership skills. Integrating these techniques and models into the curriculum offers a richer learning experience which is usually difficult to construct using more traditional approaches such as case studies and experiential exercises.

The author’s experience with using the “MarketPlace” business simulation offered by the Innovative Learning Solutions, Inc. of Knoxville, USA covers many years and several variations of the game. In this simulation exercise the instructor is not only a teacher but a Business Coach who meets each week with each team in an Executive Briefing where the teams review their performance during the prior quarter, strategy going forward, tactical decisions and financial projections and justification for everything\textsuperscript{13}.

The simulation offers an integrated view of business operations commonly associated with production and marketing-oriented enterprises. These range from the composition of the management team and the assignment of tasks and competence areas. The preliminary decisions cover the naming of the company as well as defining the corporate image of the planned enterprise. Students are introduced to the basics of start-up financial sourcing by having to accumulate initial funds for planned business activities. The exercise begins with the purchase of relevant market data – the basis upon which management teams will formulate strategic decisions in the second period of play (quarter).

On analysing market data, teams prepare for testing the market through the introductory offer of products targeted to specific segments in areas considered favourable for initial market operation. This demands an in-depth


\textsuperscript{13} Ernest R. Cadotte and Christelle MacGuire (2013) “A Pedagogy to Enhance the Value of Simulations in the Classroom.” Journal for Advancement of Marketing Education. (Fall) 33-52.
analysis of market survey data purchased as the basis for choice of segment, setting production needs and initial operating capacity. The game calls for the opening of sales offices in keeping with strategic goals.

The following quarter requires the employment of sales staff, product pricing, setting sales priorities as well as planning and executing advertising campaigns and initiating merchandising tactics aimed towards attaining a strategic position with regards to the competition. At the same time person(s) responsible for the production operations must gauge and plan production levels for the future periods of play. The acquisition of market date is an ongoing exercise. These decisions are carried out under the strict financial constraints resulting from the level of own investment in the company to date.

The following period of play offers the budding entrepreneurs (players) the chance to assess the results of their chosen strategies for the first time since the start of the game. At this stage, players need to evaluate their initial market performance and strategy and adapt to the reality of the market given the results of the strategy adopted so far. Evaluations should cover financial and marketing performance and especially the strategies and tactics of the other companies competing in their marketspace. These analyses will cover: production levels and capacity, brand designs, prices offered, salesforce performance (number and efficiency) and advertising tactics (accuracy of marketing claims and number of repeats). There may well be a serious need to revise market strategy. Players are expected to do cash flow projections to substantiate their future decisions.

The following periods of play (2 - 8) will see the expansion of the market with companies (teams) entering new locations (regions), setting-up additional points-of-sale and employing many more sales staff. This should only be possible should the “companies” seek and acquire external funding for their operations. The most likely source may be the banking system but the option to borrow funds from venture capitalists is readily available. This option calls for a successful “sales pitch” on the virtues of the company and their integrated development plans - i.e. teams are expected to prepare a marketing plan which will determine the level of financing that venture capitalists will be willing to invest in the respective teams.

One of the major elements of each of the proposed marketing strategies will most likely be a plan to upgrade the technological aspects of the market offer. This is solely one of the most expensive investments that companies will have to undertake but it is generally considered a must for the future development of the market. The simulation offers the possibility of playing “catch-up” win the technology race by licencing technology from other companies (but only after they have initially made us of same. The benefit here is a lower cost of access to needed technology, albeit at a later stage.
These business activities are continued to the end of the simulation with the competition among companies becoming much more intense as the game progresses. This is due mainly to the fact that players acquire more experience in the way the simulated market operates and with time are more experienced and so able to plan and execute decisions at a higher skill level.

There are alternative scenarios for the completion of the game depending on the aptitude of the instructor. This may include the use of built-in test banks which try to ascertain the individual competences of players as well as exercises - including instructors’ own consultations during the run of the game as well as summary presentations that teams are expected to make as work towards their final grade.

Worthy of note is the fact that the simulation in question here is delivered over the Internet directly for the owners’ computing centre and as such would require a vibrant internet connection to ensure smooth execution. There have been in the past occasions of the game being conducted in a local area network from a local server or even on stand-alone computers but these methods of execution are not the ideal solutions. The Marketplace Live version offers interesting and valuable interactive experiences which further enhance the experience for both students and instructors.14

14 Prepared on the basis of and use of the MarketPlace (Web/Live) simulations offered by Innovative Learning Solutions, INC, Knoxville, USA