Teaching using 'Serious Games' (MERP™) – Interview with Prof. G.Vastag

The Corvinus School of Management (CSM), a unit of the Corvinus University of Budapest, is responsible for English language part-time and full-time MBA and executive programs in the Faculty of Business Administration. Dr. Vastag also holds Visiting Professorships at the University of Groningen (The Netherlands), and at the Stuttgart Institute of Management and Technology, Germany. Prior to returning to his alma mater, Professor Vastag served a year as Professor and Area Coordinator of Operations and Supply Chain Management at the CEU Business School and spent 17 years in the United States on the faculties of top-ranked business schools: Kelley School of Business (Indiana University), The Eli Broad Graduate School of Management (Michigan State University), and The Kenan-Flagler Business School (University of North Carolina at Chapel Hill). He spent the 2000/2001 academic year in Stuttgart where he was Professor and Dean of Supply Chain Management Programs. Born in Hungary, he earned Ph.D. degrees from the predecessor of Corvinus University and from the Hungarian Academy of Sciences.

Professor Vastag's areas of interest include operations and supply chain management, service operations management, environmental management strategies, international manufacturing practices and competitiveness of firms and metropolitan areas. In his career, Dr. Vastag, a popular and successful instructor, taught a wide variety of courses both in traditional and online settings and ranging from undergraduates to doctoral students. These courses covered the full spectrum of Operations Management (Manufacturing Strategy, Service Operations Management, Operations and Supply Chain Management, Global Supply Chain Management, Total Quality Management) and he also taught International Business both for undergraduates and MBAs.
Experience with MERP™
Since 2001, Professor Vastag has used MERP™, both in traditional and online settings, to teach the Operations and Supply Chain Management course for MBAs. Using MERP™, he taught about 500 students at the Stuttgart Institute of Management and Technology (Stuttgart, Germany), Kelley School of Business (Kelley Direct Online MBA Program at Indiana University, USA), CEU Business School (Budapest, Hungary) and Corvinus School of Management (Hungary).
Typically, about 30-35% of the total points can be earned with MERP™-related work.
Moshe Yerushalmy, CEO of MBE Simulations, interviewed Professor Vastag on his experience using the simulator as an integral part of his introductory Operations Management course.

Q: What are the specific challenges you face in teaching Operations Management, from both student and professor perspectives, and how has the MBE Simulator provided a solution?
A: In real life there are multiple factors students must interact with. There are many potential problems and no prepared solutions to counter these. With the MBE Simulator software, what at first appears to be a very simple scenario raises many complicated interactions that are not as straightforward as the student might think. Students have to understand and get an overview of the whole supply chain picture, and that can be quite an overwhelming experience for most of them.

In the MBA programs, there is an ever increasing pressure on getting better grades (and later convert better grades into better jobs) thus increasing the temptation for cheating. As a result, much copying and information exchange is going on between current and past students. With traditional case studies, students can easily obtain the whole discussion, to see how it was led and managed. To try to prevent this, professors have to regularly change, revise and update teaching materials just to prevent cheating. However, the principal problem with cheating, if we put aside the ethical considerations and the added work to prevent it, is that students learn nothing from it.

The simulator offers a solution to this problem by providing an ongoing measurement of how

much time each student has spent on the simulator. Furthermore, the professor can recreate the work done by the students and see exactly what path they took and what decisions they made. I also require the students to submit an "Executive Summary" of their management philosophy, tactics and decisions. This assignment challenges students to describe the way how they managed and why they did so – just like real life boards of directors are required to do. In the class I ask students why they made each decision. This is a completely different from the usual executive summary, where only managerial slogans are used. Here the summary (10-12 pages total) provides real insights into the company, and is a good indicator of the extent to which the students understood the problem.

In sum, in the simulation most of the cheating related problems are eliminated, because it takes far more effort to copy someone's notes (and then answer questions during the presentation of the results) than to learn while running the simulator. In addition, the complexity of the scenario allows for more than a single, well-defined solution. Rather, the simulation provides an ongoing search for solutions.

The MBE Simulations tool addresses a wide variety of questions such as forecasting, inventory modeling, scheduling, purchasing questions, performance management as well as what and how you want to measure and what kind of action you want to take. So it is in effect a very powerful tool in a small compact package.

Q: Let's talk more about the challenges of teaching Operations Management: beyond the importance of understanding the interrelation and interaction between many things, factors, how does one practice theory?
A: Learning with the simulator is ideal because, for example, you can illustrate an inventory modeling embedded in practice. In traditional problems (at the end of the textbook chapters), one paragraph describes the problem, which is basically a mathematical problem, and the students simply plug in the numbers and get the answer. In the simulator, you can actually see through the graphs and through the mechanism itself what the impact of changing a parameter can have on other parameters (such as changing the order point or order quantity). Other teaching topics that can be illustrated by the simulator are: Forecasting, master production scheduling, MRP, bill of material, rough cut capacity planning, purchasing and choosing suppliers. In short, you can cover every topic included in any Operational Management course.

Q: How do you feel the simulator has provided further support for you as a professor of operations management?
A: Grading assignments is a tremendous task for the professor and takes much time and effort. Especially with large classes, the simulator can automate some of the grading related activities. The simulator can classify the assignments and the submissions, so the professor can focus on the most critical ones. Experience taught me that I could trust the simulator grades in most instances and these grades can be used in the overall grading of the students. The simulator provides the professor with an objective measure that measures the students' ability to assimilate the material learnt into their real life practice.