

Virtual environment in the reproduction of an enterprise system as a playful learning tool for business management. Case study bachelor's degree in international bilingual business of the faculty of economy UAEMEX

RUIZ-TAPIA, Juan Alberto†*, RUIZ-VALDÉS, Susana, ESTRADA-GUTIÉRREZ, César Enrique and SÁNCHEZ-PAZ, María de la Luz

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Abstract

This research presents an analysis of the use of virtual environments in the reproduction of an enterprise system as playful learning tool in business management in college students of the degree in international business at the University symphysis. Generally it explained its formal structure and a brief description of the factors that motivate play and make the game a learning activity. An analysis is presented in an enterprise system to develop different business skills through the integration of administrative concepts in business management. They were detected in academics, behavior and attitudes of students against this practice to detect what extent are exploited cognitive contributions that they provide. The methodology to carry out the investigation as formulating research questions considerations, the formulation of the hypothesis, identifying the variables of study, research design, the instrument for data collection was carried out, the prosesing and analisis of the information. It details how a virtual learning environment works through a business simulator Risky Business.

Virtual environment, playful learning, strategy, learning skills, students

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* Correspondence to Author (email: jart2005@gmail.com)

† Researcher contributing first author.

Introduction

Education is going through a paradigm shift, oriented towards an active model, leaving behind the conception of teaching and learning as transmission and observation, opening the door to new strategies for more meaningful learning.

It is considered that teaching should be planned in such a way as to enable the learner to manipulate the objects of their environment, transforming them, finding meaning, analyzing them, introducing variations in their various aspects, being able to make logical conclusions and develop new schemes and Mental structures. (Piaget, 2001).

The development of the individual has to do with the interaction that this has with the environment that surrounds it; argues that: "knowledge does not come neither from the subject nor from the object, but from the interaction between them". (Piaget, 2001).

In this sense, learning goes far beyond the traditional studies of a classroom, it implies that education must have among its objectives the construction of competences, understood as the set of socio-affective behaviors and cognitive, psychological, sensory and motor skills that enable a performance, function, activity or task to be performed properly. (Argudín, 2006).

Deepening specifically what is a virtual environment as a playful learning tool in the direction of business, can be defined as a representative model of the operations of a real world, according to (Gilbert, 2006) and have been used as tools in the area of learning, because they allow to make decisions of financial type, production, marketing and negotiation.

In a fictitious environment so that the reality can be represented for the participants, where they can develop the capacity of decision making and team work.

With the use of virtual environments as a playful learning tool you can develop various competences such as: teamwork, decision making, strategic thinking, organization and integration of activities, oral communication time management, analytical and information processing skills, Technical capacity and construction of spatial notions among others, which are those benefits that have been achieved that are recognized with the practice of virtual environments. But that is only a part of a much larger contribution in cognitive matters: virtual environments as a playful learning tool teach them to think differently, teach them to lose the fear of being wrong, to experiment, to seek alternatives to solve problems, to describe procedures to achieve objectives, share experiences, and other strategies to improve the learning process.

In consideration of the above, the problem that is detected in students of the bachelor's degree in international bilingual business at the UAEM Faculty of Economics, is that there is no learning developed with dynamic constructions does not make it possible for the student to be interrelated with The medium in which it develops; For this reason it is necessary to use business simulators as a learning strategy, understanding the simulation as a representative model of real world operations (Gilbert, 2006); So it is considered an educational resource to promote the learning of previously obtained knowledge.

When exploring in virtual environments, students are taking advantage of time, acquiring learning strategies and knowledge differently than they traditionally do in school.

It is even possible that what they learn by playing (playful) apply it unconsciously in the school at a general level or even in a particular subject, so it is possible for some skills to be sharpened or better, to develop better if they are latent.

Through the use of virtual environments as a playful learning tool in business management, students work on the design, implementation, and control of operational strategies that help to have an approach to the reality of the diverse and varied scenarios that are produced in the business world; where decisions do not occur sequentially but simultaneously and reciprocally, as they do today.

This is considered as experiential learning since the student puts into practice the theoretical knowledge through the development of strategies and decision making in a simulated environment. With this tool, students are allowed to face managerial situations that they must learn to solve, so that when in real life, similar questions can be presented to them, they may have some reference elements for decision making (González, 2001).

The purpose is to recreate situations that students can face in a business environment, to know their operation, economic variables, to propose different strategies and to find solutions to particular situations, through the integration of administrative concepts to university students faculty; Since they allow to establish a virtual environment in the process of direction of a company or of a specific area of the same; As well as to relate the theoretical aspects of the direction of a company as the practical aspects that occur in real situations.

Referentes teóricos conceptuales

A Virtual Learning Environment (EVA) is an educational space hosted on the web, made up of a set of computer tools or software system that enable didactic interaction (Salinas 2011).

The virtual environments of learning have always been carried out at any time and place of life since by nature, man tends to simulate real situations before proceeding to act or make a decision in real life. This has always been seen in different areas such as sports, army, civil protection, aviation, space missions, etc. Such virtual learning environments as game are used as a dynamic training tool.

The current context, characterized by the intensive use of Information and Communication Technologies, places higher education institutions in the need to develop digital literacy for students in three basic dimensions: knowledge and use of applications Computing; The acquisition of cognitive skills for information management; And the development of a critical and reflective attitude to produce, organize and disseminate information. For these reasons, it is necessary to know the functionalities and didactic potential of the virtual environments, as a previous step for their significant integration is necessary the inclusion of a ludic learning method, characterized by the set of strategies designed to create a harmony environment in Students who are immersed in a learning process. This method is intended for students to acquire knowledge using the game (Burbules, 2001).

However, in the business education area virtual learning environments have not been used so widely.

The performance in a company is not a simple task since bad decision making or mismanagement of resources can imply significant economic losses for the company and therefore the possible disappearance of this one. Just as soldiers, pilots and astronauts prepare themselves in a practical way by using simulators for situations that will be found in the real world, so business professionals should also be trained through the use of business simulators. (González, 2001).

Waldegg (2002), talks about the irreversible presence of new information and communication technologies in daily life, mentioning that it is necessary to clarify the different roles and uses that can have in education to review and evaluate the main trends in their school application.

Many researches have illustrated the application of virtual environments as an educational and training tool, both inside and outside the classroom, trying to take advantage of the playful perception that young people have about it. All of these researches have tried to establish and propose characteristics that virtual environments must show in order to be considered educational.

(Etxeberria, 1999), mentions some educational benefits that virtual environments can provide in the educational field of play, among which are concentrated:

- Stimulate students' sense of alertness and improve their thinking skills.
- Increase the attention span of those students who present difficulties in performing an individual task after a while.

- Increase the development of skills for the identification and assimilation of numerical concepts, word recognition, identification of objects and colors, increase of the reading rate, improvement of comprehension.
- Perceive your own mistakes and are encouraged to correct them or select other options.
- Transfer learned behaviors to real life situations.
- They are tools of support in the learning process for university students.
- Give students the ability to make decisions that can affect or benefit a company's management.
- Develop leadership and decision-making skills.
- They show the impact of management decisions on the overall performance of a company.
- It helps to stimulate group relationships among students and fosters participatory and collaborative work in the classroom.
- Introduce in students the reflection about certain values and behaviors through their content and the consequences of the actions they perform virtually.
- Helps the development of skills and abilities, such as psychomotor control, development of specialty and deductive ability, problem solving, imagination, thinking (comprehension, reflection, memorization, faculty of analysis and synthesis), etc.

- They make it possible to dynamize the learning experience and bring it closer to the appropriate and operative world in which the student moves.

For its part, Silvern (1987) explains that all that a virtual learning environment can offer in terms of educational experiences are skills that the student possesses and puts into practice; These skills can be: Essay and error; Generation of a model; Creation of a standard; Hypothesis testing; Generalization; Estimate; Organization.

Reflecting on what the authors mention, it is considered that the great challenge is to be able to take virtual environments as an attraction to enhance learning and achieve educational goals. It should be emphasized that this enables active learning both through personal discovery and exploration in an artificial medium similar to reality as well as through the interactivity and collaboration established with others.

Methodology

Problem statement

The problem that is detected in the students of the Bachelor in International Business Bilingual in the UAEMex Economics Faculty is that there is no elaborate learning with dynamic constructions and this does not make possible that the student is interrelated with the environment in which is unfolding.

Through the virtual environment in the reproduction of an entrepreneurial system as a playful tool of learning in the direction of business, the students practice the design, implementation, and control of practical operational strategies that help to have an approach to the Reality of the diverse and varied scenarios that occur in the business world.

Where decisions do not occur sequentially but simultaneously and reciprocally, as they do today.

The implementation of information and communication technologies in the educational field, presumes new challenges regarding teaching supported in virtual environments, whose learning strategies are adapted and designed for that environment (González, 2001).

Virtual education in the leisure process of learning focuses on the autonomous and independent student and the need of the human being, to express themselves in various ways, to communicate, to feel, to live different emotions, to enjoy pleasurable experiences such as entertainment, Play, fun, recreation, which lead us to enjoy, laugh, shout, to live, being a true source generating emotions, which even leads us to cry; For which they must regulate their own learning pace by adjusting their time and space of work, study, socialization, fun and recreation, as well as selecting topics and information of their interest, with respect to their own needs (González, 2001).

By using this learning tool in college students in the business area, it allows students to be able to run fictitious companies and apply their knowledge and skills acquired throughout their academic preparation; So that in order to carry out this, it is only necessary to use educational software where they can manipulate variables related to some of the areas of an organization. The purpose is to recreate situations that students can face within an organizational environment, to know the operation of the industry, the economic variables, to propose different strategies and to find solutions to particular situations, as well as to observe the results of the decision making And also to be able to experience teamwork.

Likewise, it allows university students to promote psycho-social development, personality conformation, evidence of values, oriented to the acquisition of knowledge, to walk to the activities, enclosing a wide range of activities where pleasure, joy, Creativity and knowledge; Allow to establish a virtual environment in the process of management of a company or a specific area of the same, putting into practice the knowledge acquired during their academic preparation on various areas and relate the theoretical aspects of the direction of a company with the practical aspects Which occur in real situations.

Virtual education in the leisure process of learning can be present in the different stages of learning processes of the human being, and allow to develop various competences such as: concentration, memorization, anticipation, capacity for observation, doubling of attention, induction (Linked to memorization and anticipation), which are not currently being developed and this would teach them to lose the fear of being wrong, to experiment, to seek alternatives to solve problems, to describe procedures to achieve objectives, to share experiences, among others Strategies to improve the learning process. By simulating, students are taking advantage of time, acquiring learning strategies and knowledge differently than they traditionally do in school.

Playful activities in the learning process can be very constructive if applied under the methodology of Experiential Learning, aware that we humans are in a continuous process of learning.

At the moment university education must allow the formation of efficient and effective professionals, who respond to the needs of the society and give solution to the problems that identify in their different areas of action.

Virtual learning environments allow students to learn in a practical way, through the discovery and construction of hypothetical situations.

A simulator has the advantage of allowing the student to develop the capacity for decision making and teamwork through its use and put it in contact with situations that can be used in a practical way. This is why it is necessary to place the student in a context that imitates some aspect of reality and to establish in that environment situations similar to those that must be faced in a way that can "experiment" without risk and thus contribute to raise its quality Education in their learning process.

Objective

To propose the use of virtual environments in the reproduction of an enterprise system as a playful tool of learning in the direction of business to develop a set of entrepreneurial skills to students of Bachelor of International Business Bilingual of the Faculty of Economics UAEMex.

The study population consisted of a total of 52 regular students of the 8th semester of the bachelor's degree in International Business Bilingual of the Faculty of Economics UAEMex, of the subject Strategic Planning.

It is considered that the main interest of this research lies in the importance of the use of virtual environments as a tool of playful learning since the form of "learn-doing" is more effective than just acquiring theoretical knowledge. At the moment university education must allow the formation of efficient and effective professionals, who respond to the needs of the society and give solution to the problems that identify in their different areas of action.

It is clear that this methodology must be implemented in higher level schools, in order to improve the educational conditions of the graduates, as it allows:

- An environment conducive to the construction of knowledge.
- The development of cognitive abilities
- Enrich the field of pedagogy by incorporating educational technology.
- Build a new dynamic way of learning.
- Show the interdisciplinarity of the different areas of knowledge.
- Mark the possibilities for a more innovative class.

Analysis of results with the use of the Risky Business simulator as a virtual learning environment in learning. We performed an analysis of the overall operation of the simulator and the most relevant things when using it. They proceeded to explain clearly how to use the business simulator.

The simulation is structured in two stages:

- Phase test: this phase is presented as a contact between the participating teams and the simulator. Participants will experiment to the maximum with the different options that Risky Business offers.
- Competitive phase: This phase is already in serious competition and we must try to get the most advantage out of the conclusions drawn in the test phase. From the results of these periods will obtain a note that will have an important weight in the final evaluation of the subject.

The teams will be formed by members who must distribute the following functions or management positions:

- Director of the Commercial Department (sales and marketing: advertising, promotion, distribution, and product).
- Director of the Production Department (warehouses, machinery, production personnel, R & D, factory operations, etc.).
- Director of the Financial Department (financial viability, loans, investments, treasury, balances, etc.).
- General Director of the Company (regulator and coordinator of the different departments, he shall act as arbitrator and decide in case of internal conflicts of interest).

As for the general evaluation of the company, the evaluation criteria will have the following importance:

Financial 50%
Production 25%
Commercial 25%

When using the business simulator students grouped in work teams are assigned a company in a particular industry. Team members are then required to take on the role of a team of managers so that they analyze the information in their area and finally make the most appropriate decisions that correspond to the management of the area they are in charge, considering both the decisions of the other areas, as well as the general objective of the company.

Simulated experimentation allows students to assume a certain role, by virtue of which they must solve situations by considering a series of variables, which are linked precisely to the concepts that have been part of the knowledge previously acquired in class. It should be noted that the simulation allows the deepest assimilation of knowledge through experimentation, since it requires the student to place himself in the place of the agents involved in a model to understand from within key concepts, such as causal relationships between variables or assumptions under which this model may or may not work.

A descriptive analysis of the data was performed; According to the results obtained during the research, it can be observed that the students surveyed consider that virtual learning environments is a playful tool is effective and dynamic that serves to promote learning by relating it to a real system through the experimentation of A model that represents it.

In all cases the students emphasized that the main enrichment was the management of the company, since it consisted in strengthening teamwork and applying the knowledge of the subject. Some students emphasized other contributions of the simulation, such as: allowing them to strengthen knowledge of economics, learn how to deal with other people in a different way, gave them a global view of the company and its operation, allowed them to know the impact of Their decisions in the different areas, helped them to assess the need for planning and the knowledge that they provide the subjects, etc. Regarding the criteria of distribution of roles and tasks in the group work, it is worth mentioning that it was done based on the personal interest of each member, as well as their knowledge and ability for a certain functional area of the company.

Which allowed the company's functions to be better understood, such as the financial area, where the students in charge of this department not only put the technical skills to the test, but also their ability to evaluate the information received And rank it by importance, their ability to make decisions under pressure, and their ability to work as a team. In this way, the functions of the company were more effectively understood by showing the impact of their decisions on the overall performance of the company.

In this sense, they are a learning tool that allows the development of decision-making capacity and teamwork through the integration of administrative concepts to undergraduate students in bilingual internships that study strategic planning in the Faculty, in addition to Which is a tool that favors learning by relating it to a real system through the experimentation of a model that represents it.

The virtual environment provided by the Risky Business simulator can be oriented to support the learning of conceptual, procedural and attitudinal contents, since they favor the development of creativity and strategies of thoughts, such as: discovering regularities through observation, making inferences, assembling Isolated data, simplify, make analogies, reach the required conclusion, apply the results to more complex cases or new contexts; to come up with new and different ideas, to analyze and design their own games, to develop favorable attitudes towards the formation of the student.

The simulation is considered a real experience; is seen as a partial representation of reality, which selects important features from a real situation and replicates them within an environment or place that is basically out of risk.

This virtual environment as a playful learning tool has become an integral part of academic training and is a preferred practice as a teaching method. It provides participants with the opportunity to experience decision-making processes in a dynamic, risky and uncertain environment as opposed to using only readings as the sole means of learning. The most important thing is that this virtual environment of playful businesses learning reports an increase in the knowledge of the interrelationships and interdependencies between the functional areas of the companies.

In this sense, the student develops several types of intelligence and their channels of perception, ie, kinesthetic and visual. In addition, they put into action all the body organs, fortify and exercise the psychic functions, serve to strengthen the student's social life, language, awaken ingenuity, develop the process of observation, inference, hypothesis and learn to generate solutions, Will and perfect patience.

It is worth mentioning that virtual environments are intended to provide an open learning environment based on real environments, with a high level of interactivity since the operation depends on the decisions of the user. They provide the opportunity to anticipate the consequences of strategic decisions, which enrich the planning process. It favors the construction of self-responsible groups, allows for flexibility, dialogue and creativity, emphasizing personal initiative, self-organization of groups and communication models. The objective was to generate a virtual competition between future professionals, as well as to know and develop future talents capable of facing the current challenges that are expected in a business environment and competitive activity.

The pedagogical projects focused on virtual environments allow learning through living, facilitate the understanding and integration of complex systems and favors the change of mental schemas necessary for learning and organizational evolution. All the students surveyed consider the simulator to be an interesting learning tool for their training. Information and communication technologies have broadened the spectrum of these concepts by providing them with exponential capabilities that allow different participants to mediate knowledge from any of the channels of perception and regardless of their experience and intelligence more developed.

The virtual environment in the reproduction of an entrepreneurial system as a playful tool of learning in the direction of business combines an important mixture in the planning of the learning in the students as it forces them to face the challenges that this presents through the information that Know the simulated environment. This implies that students unconsciously read frequently without reflecting directly on reading activities, this influences as a main element to address a number of aspects relevant to the creation and use of the simulator.

The simulation induces to indicate that it has an enormous educational importance, since it is an activity that can be oriented by the student and become an effective instrument for the learning. Among the many possibilities to be realized in the classroom, the game can be used as motivator for the development of a later work; Develop logical thinking, creativity, to strengthen concepts; Memorize rules; Reinforce the teaching-learning process, among others.

Conclusions y Recommendations

Virtual learning environments lead students to practice using theoretical knowledge in their application through teamwork and making decisions in a simulated environment. With this tool, students are allowed to face real situations that an organization faces and that they must learn to solve, so that, when in the real situation, similar questions can be presented to them, they can have some reference elements to make decisions. This, favors the construction of groups responsible for themselves, allows to develop the dialogue and the ability to analyze and select the most appropriate decision for the company, thus increasing the level of commitment and interest from students; allowing them to gain experience through market analysis, formulating strategies and managing their implementation.

Their use can be oriented as support to conceptual, procedural and attitudinal learning, since they favor the development of creativity and strategies of thoughts, such as: observation, analysis and decision making; as well as forcing the student to demonstrate what he has learned during his academic training.

Likewise, they favor the construction of groups responsible for themselves, allows the development of dialogue and the ability to analyze and select the most appropriate decision for the company that leads, thus increasing the level of commitment and interest of students; allowing them to gain experience through market analysis, formulating strategies and managing their implementation.

Virtual environments, also allow students to generate interactive experiences and develop an integral learning of all their subjects; achieving a better understanding of the behavior of the labor market and enabling its development with the implementation of appropriate strategies to achieve the objectives of the simulated company. In addition to reinforcing learning with different media such as: images, diagrams and thought strategies that manage to better capture their attention in the topics of the course.

The virtual environment in the reproduction of an enterprise system as a playful tool of learning in the business direction, allowed to retain much more information and to develop better the learning of the students of the degree in "Bilingual International Business" from the Faculty of Economy UAEMex. In this way, the effect of using business simulators as a support tool in the learning process of the faculty students is justified.

It was found, that the general objective is reached by the majority of the students, nevertheless exists a significant percentage that does not manage to be completely involved in the simulation. This is because if the business simulator is not properly employed and if it is not practiced following a method of work by students, learning and skill development is not achieved in its entirety.

In this sense, it is necessary to use virtual environments as a complement and support for the course of strategic management, so that, what is theoretically learned is supported by practice through the simulator as a playful learning tool in business management. Thus, from a concrete experience in a company direction will allow to understand concepts and make generalizations for other circumstances.

On the other hand, part of the simulation success lies in choosing a suitable simulator that covers much of the course content, hence it is necessary to review the characteristics of the simulator and how they relate to the concepts to be presented.

Finally, it is recommended that you use this business simulator or some other in different subjects to be useful for business students in other Universities.

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