MODULE 3

Experimental Learning And Enterprise/Business Simulation

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Introduction and description of the module

Experimental learning is a new pedagogy in business management learning method, providing a ‘Student centric learning methodology’, where students/trainees are exposed to real business problems and made them as part of decision-making team. Such exposure in real-world problems will improve the risk taking ability and the confidence of the students/trainees while becoming an entrepreneur on one hand, and on the other, the Business simulations have gained prominence and a high degree of acceptance as a learning pedagogy. It is a dynamic learning tool which provides an environment of constant stimulation and challenge. Business simulations are effective experiential tools used to introduce business concepts, to enhance decision making skills and to appreciate a cross-functional understanding of business.

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Objectives:

1. To learn what does the Experimental learning means;
2. To learn how the Experimental learning could be applied in improvement of entrepreneurial abilities;
3. To learn what does the Business simulation means;
4. How can be used by entrepreneurial education and improvement of entrepreneurial abilities;

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Topics

Topic 1

Experimental Learning Method. Differences between experiential learning and experimental learning

Topic 2

Experimental Learning in different Subject Areas and Innovations in the method

Topic 3

Business simulations as a dynamic learning tool

Topic 4

Benefits of the business simulations

Time to practice!

Some useful examples for business simulations

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Topic overview

- What is experimental learning?
- Types of Experiments
  - Classroom Experiments;
  - Lab Experiments;
  - Field Experiments;
  - Quasi-Experiments;
  - In-Basket Exercises;
- Why to teach with Classroom Experiments;
- Difference between Experimental Learning and Classroom Demonstrations;
- Differences between Experimental Learning and Experiential Learning;
- Experiential learning and Experimental learning in Business training;
- Advantages of Experimental learning

Experimental Learning Method. Differences between experiential learning and experimental learning

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What is experimental learning?

‘Experimental Learning Method’ (ELM):

- Experimental learning is the process of learning through practice;
- Experimental learning is often used synonymously with practical or onsite learning;
- It is a process of learning through practice;
- Some of the elements of experimental learning are:
  - teacher, mentor or guide to enhance individuals direct experience
  - Training process;
  - Involving the parts in actual decision making process;
  - Gaining theoretical and conceptual knowledges;

Experimental Learning Method. Differences between experiential learning and experimental learning

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Types of Experiments

Classroom Experiments:

- Trainees work in groups (virtually or fisycally) on carefully designed guided inquiry questions;
- The instructor's role is to act as facilitator, asking leading questions and drawing attention to interesting results;
- They differ from classroom demonstrations because the students are involved in collecting data or observations;
- All experiments involve collecting observations or observing actions to try to answer a question or solve a problem.

Lab Experiments:

- Very common in psychology;
- allow experimenters more control over the variables;
- can also be easier for other researchers to replicate;
- The problem is that what takes place in a lab is not always the same in the real world.

Field Experiment:

- Conduct an experiment in the field, meaning to cause a specific situation
- a great way to see behavior in action in realistic settings but is more difficult to control the variables.

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Types of Experiments

Quasi-Experiments:

- The researchers do not have true control over the independent variable;
- not able to manipulate the independent variable in the situation;
- It is a good choice in situations where researchers cannot ethically manipulate the independent variable in question;
- Four steps in the process: Forming a Hypothesis; Designing a Study and Collecting Data; Analyzing the Data and Reaching Conclusions; Sharing the Findings

In-Basket Exercises:

- practical exercise in which skills and attitude of a student in a given task of responsibility can be tested by means of a demonstration on planning, prioritisation, decision making, management style, evaluation of situations, analysis of information, speed & accuracy, and effective use of time;
- By “incorporating in-basket” students become familiar with the type of question and learn how best to respond to the problems or issues;
- It helps them to recognise which types of behaviours they most need to demonstrate in such an exercise to achieve success.

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Why to teach with Classroom Experiments?

- *Experiments can be used either to introduce new ideas or to clarify puzzling aspects of topics with which students typically struggle;*
- *Students are in the position to build ownership of the new idea and use it to scaffold learning;*
- *Assessments can push students to describe a follow-up experiment or to extend the concept to another application.*

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Difference between Experimental Learning and Classroom Demonstrations:

- *Classroom experiments involve the students in collecting data or observations;*
- *students involved in classroom experiments can be asked to make predictions and to reflect upon their observations;*

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Difference between Experimental Learning and Experiential Learning:

Experiential Learning

- Process of learning through experience = "learning through reflection on doing“;
- concerned with more concrete issues related to the learner and the learning context;
- can exist without a teacher;
- It’s process that occurs naturally.

Experimental Learning

- Process of learning through practice = learning by doing the work;
- Used synonymously with practical or onsite learning;
- Exists with teacher or mentor.

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Experiential learning and Experimental learning in Business training:

- *Experiential learning in business and accounting programs has become more important;*
- *Employers note that graduating students need to build skills in "professionalism" – which can be taught via experiential learning;*
- *Learning styles also impact business education in the classroom;*
- *Organizational development applies experiential learning techniques in training employees at all levels within the business and professional environment*
- *Interactive, role-play based customer service training is often used in large retail chains;*
- *Training board games simulating business and professional situations are used in business training efforts.*

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Advantages of Experimental learning:

- ***Helps instructors achieve a variety of classroom goals related to:***
  - Student Learning Outcomes;
  - Instructor Satisfaction With Teaching;
  - Grades;
  - Student Retention in Course and Major;
- ***Most students do not respond best to pure "chalk and talk," but rather to "active learning" environments;***
- ***Classroom Experiments keep learners engaged because they get a hands-on experience;***
- ***Focusing on major ideas that students will need to understand correctly in order to support deep learning.***
- ***All experiments involve collecting observations or observing actions to try to answer a question or solve a problem;***

Experimental Learning Method. Differences between experiential learning and experimental learning

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Topic overview

- ***Experimental Learning in different Subject Areas.***
- ***Innovations in Experimental Learning***

Experimental Learning in different Subject Areas and Innovations in the method

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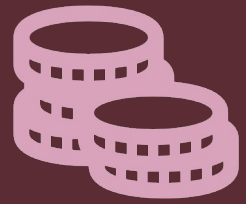
Experimental Learning in different Subject Areas

- ***in Chemistry:*** a classroom experiment might observe the behavior of a number of chemical substances;
- ***in Economics:*** A classroom experiment might observe the behavior of student traders and investigate the prices at which they trade an experimental good;
- ***In marketing:*** students might examine how information about a food's health benefits affects consumer purchasing decisions;
- ***In political science:*** students might investigate voting behavior by participating in an election exercise;
- ***In sociology:*** students might look at inequality by making decisions in an environment where some students have an unearned advantage compared to others.

Experimental Learning in different Subject Areas and Innovations in the method



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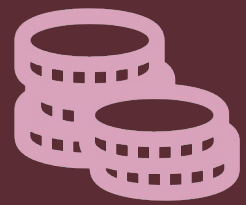
Innovations in Experimental Learning

- *Discovering existing scientific concepts;*
- *Elicit misconceptions;*
- *Formulating questions;*
- *Involving students in the design of experiments;*
- *Creating and revising models;*
- *Understanding the relationship between empirical research and models;*
- *Learning how scientific studies are conducted*
- *Often the desire to "do well" in class is sufficient motivation for students.*

Experimental Learning in different Subject Areas and Innovations in the method



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Topic overview

- What is a Business Simulation?
- Why use a simulation?
- Phases of simulation execution
  - Phase 1: conceptualising & planning
  - Phase 2: Implementation Phase
  - Phase 3: post performance phase
- Business simulations and action learning
- From thinking to planning.
- From planning to doing.
- From doing to observing.
- From reflection to thinking

Business simulations as a dynamic learning tool

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What is a Business Simulation?

- A Business Simulation in general is a computer-based model of business processes and dynamics.
- Business simulations are in this respect games that are created to model some aspects of reality in a risk-free, repeatable and controllable environment
- It is a dynamic learning tool which provides an environment of constant stimulation and challenge.
- It is more active and visual than ‘standard’ approaches (eg. lectures) causing learning through simulations to be more effective than traditional learning methods.
- Business simulations can be very effective in introducing business concepts, enhancing decision making skills and appreciation of cross-functional nature of business.
- In most business simulations, learners are involved in managing a firm in a competitive environment.

Business simulations as a dynamic learning tool

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Why use a simulation?

- ***Participants can learn more because they are engaged in the learning process:*** Engagement in the learning process means more than simply listening to someone talk about topics such as strategy, finance, and business planning.
- ***The consequences of taking risks are reduced:*** When participants are put into the realistic business environment provided by the simulation, they can practice those decisions and gain on-the-job experience without the risks and implications of making those decisions in the real world.
- ***See the big picture:*** Participants will be better prepared to apply the lessons learned from the simulation, and to improve their performance, when they return to the real world and make real business decisions.

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Phases of simulation execution

Phase 1: Conceptualising & planning/preparation phase:
The activities are:

- Designing the industry canvas.
- Getting participants to understand the simulation world
- ***Phase 2: Implementation Phase:*** teams execute their chosen strategy to drive the firm towards profitable growth
- Participant Activity: Managing a Business
- Instructor Activity: Debriefing and feedback
- ***Phase 3: Post performance phase***
- teams re-look at their performance and critique it
- measuring the performance against goals, objectives and the operational plans set by them
- making a report
- share their takeaways
- learn from others' experiences.

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Business simulations and action learning

- ***Action learning is based on the idea that theory needs to be merged with practice.***
- ***Business simulation exercises may support the experiential developmental processes that underlie action learning***
- ***Business simulation exercises can play a significant role in promoting effective learning***
- ***There are four identified dimensions of the experiential learning process: thinking to planning; planning to doing; doing to observing; and reflecting to thinking***

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Four dimensions of the experiential learning:

- ***From thinking to planning.***
- making plans before the simulation starts
- the participants generally underestimate the complexity of the problem situation
- The planning activity thus creates an explicit set of ideas
- the learning situation generates feelings and emotions
- ***From planning to doing***
- taking action and implementing change
- actively carrying out plans and getting involved in new experiences
- ***From doing to observing***
- learn from individual and collective experiences
- a specific experience can be viewed from different points of view
- ***From reflection to thinking***
- provides a basis for understanding why and how new experiences are related to what is already known
- focuses on changes in how people think

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Topic overview

Let's see this short video showing us main benefits of the business simulations:

Business Simulations Video

Benefits of the business simulations

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Time to practice!

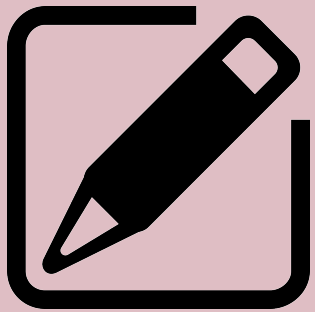
- ***"Friday Night at the ER“*** is a world-renowned business simulation. The objective of this game-based simulation is to experientially learn interdepartmental collaboration, innovation, data-driven decision making and systems thinking:

https://www.youtube.com/watch?v=t9d4JAaTeCY&ab_channel=nuturnsinc

- ***What a Beer Game*** can Teach Us About Supply Chain Disruptions:

https://www.youtube.com/watch?v=tt2RbmiOhh8&t=11s&ab_channel=SingularityUniversity

- ***Startup Empire:*** Have you ever wanted to build your own billion-dollar IT Startup Empire? Do you have a dream to be an IT Business Tycoon? https://youtu.be/dGqzXlV4yig
- ***Camping Tycoon*** is a management game: https://youtu.be/tW6EnjAUEcw
- ***More additional games here:*** https://www.topsim.com/



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- https://www.academia.edu/6088206/Business_simulation_exercises_in_small_business_management_education_using_principles_and_ideas_from_action_learning
- https://www.researchgate.net/publication/298433633_Business_Simulation_Games_Effective_Teaching_Tools_Or_Window_Dressing
- https://www.wrightframeofmind.ca/experimental-learning/

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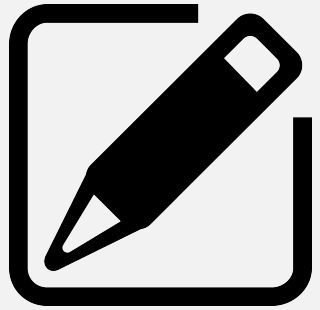

Additional sources:

- ***Hubro Business Simulation***
- ***What is a business simulation***

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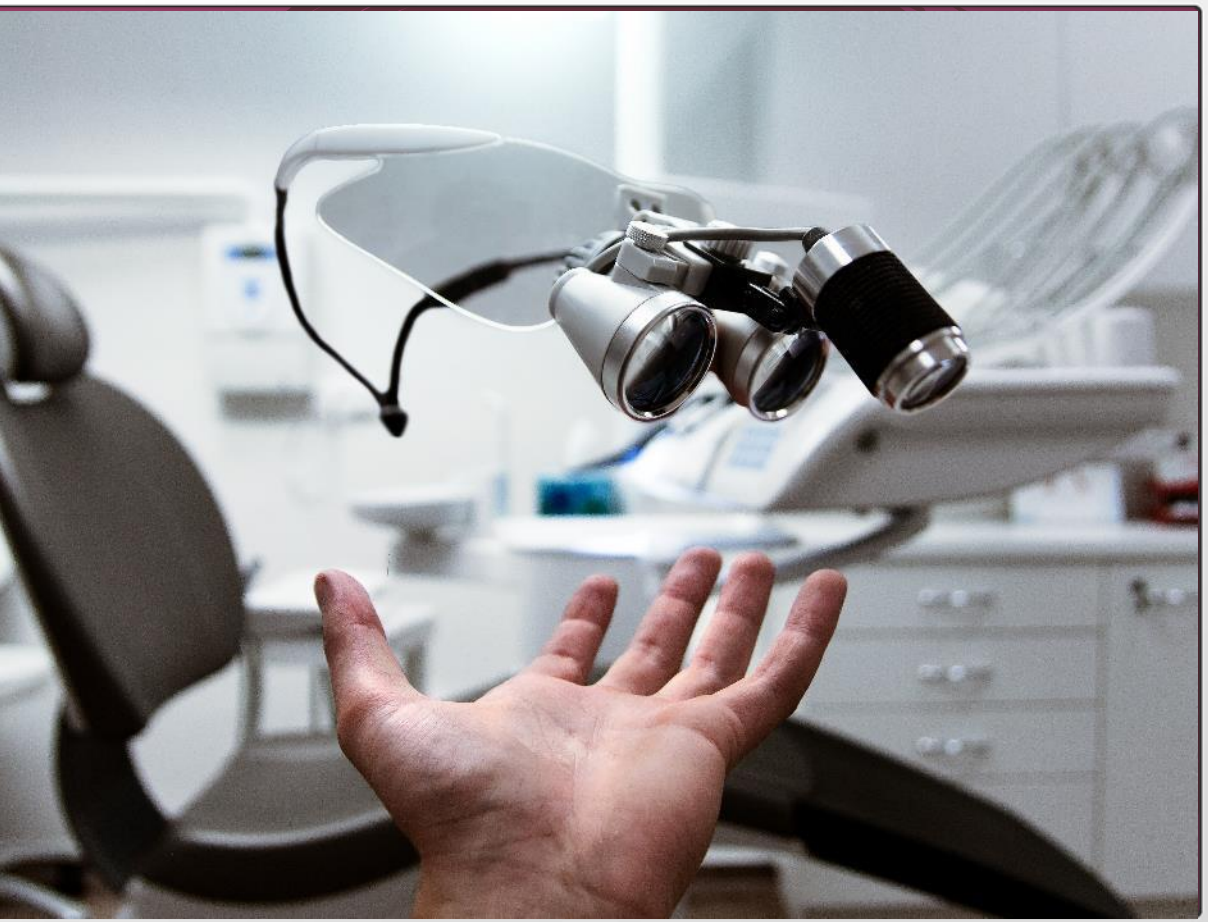

Thank you for your attention!

Ruse Chamber of Commerce and Industry

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