



“SIMULATION BASED EXPERIENTIAL LEARNING USING ARTIFICIAL INTELLIGENCE IN ENTREPRENEURIAL EDUCATION”

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ABSTRACT

Simulation is an effective tool that can be used in Management Studies to help students in the field of Marketing learn and apply important concepts and theories. Through Marketing Simulation using Artificial Intelligence students can research Marketing Trends, develop Product Strategies, analyze company performance and make informed decisions based on real-world data. The present study is directed to review the benefits and impact of marketing simulations by using Artificial Intelligence on future Marketers.

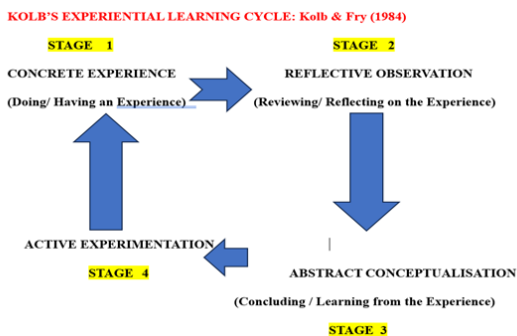
**KEYWORDS :** Simulation, Artificial Intelligence, Experiential Learning

INTRODUCTION:

Simulation consists of Tools, Templates and resources that will help design and implement simulation as an experiential learning activity. It promotes academic learning inputs, advanced career development for students, enhances connections within the workplace and promotes critical thinking. It helps students to enhance their knowledge levels, additional skills and values. It facilitates knowledge sharing in developing programs. It can be used among multiple disciplines.

Simulation based experiential learning has many advantages. It provides a platform for the participants to practically enhance the skills (Lateef, 2010). Gives a hands-on experience for the participants (Lateef,2010). Enhances collaboration among the student community. Facilitates learners to prepare the contents (Shaw & Switky, 2018). Help Learners to develop professional work skills (Lateef,2010), Provides exciting & Fun based Learning to the learners.(Shaw & Switky, 2018).

Kolb's Experiential Learning Cycle: Kolb & Fry (1984)



- Stage 1: Students having a Simulation Exercise
  - Stage 2: Students encouraged to showcase their experience
  - Stage 3: Synthesis of learning by the students from the Simulation Exercise
  - Stage 4: Identification of ways in which theory, Framework, Hypothesis or model can be tested by the students
- Simulation based Learning is a Experiential based learning that gives learners opportunity in the real world to enhance the knowledge and skills. Opportunities are created to students to develop values and skills to select their career path.

Areas Of Applications Of Simulation Based Learning:

1. Generating awareness about Hard to surface issues
2. To enhance skills
3. To analyze the differences among a variety of Stakeholders. (White et.al., 2004)
4. SBL is used to address emergency situations and preparing for the same.

5. SBL is used in the decision-making process
6. SBL is used in enhancing Negotiation skills.
7. SBL is used in resolving the conflicts
8. SBL is used in the area of Technical Training, (Shaw & Switky, 2018)

Advantages Of Simulation Based Learning:

1. Gives opportunity for learners for enhancing practical skills in an environment of Simulation based learning (Lateef,2010)
2. Gives participants a Hands-on Experience without making any mistakes in the real world. (Lateef,2010)
3. Gives an opportunity for the learners to use the contents in an appropriate manner. (Shaw & Switky, 2018)
4. Increases Knowledge Retention level among the users. (Shaw & Switky, 2018)
5. Encourages Learners to enhance Non-Technical Skills. (Levin- Banchik L,2018)
6. Facilitates Teamwork and Work place Collaboration.
7. Gives an opportunity for the users to analyze and scan all the opportunities in the decision-making Process. (Lateef,2010)
8. SBL is a fun-based learning for the users and Learners. (Shaw & Switky, 2018)

Deal Model For Critical Reflection:

The DEAL Model was developed by Dr. Sarah.L. Ash of North Carolina State University and Dr. Patti.H. Clayton of PHC Ventures/Indiana University Indianapolis. Their work on reflective practice in the context of applied and experiential learning has been widely used among North America.

DEALS MODEL is defined in a three step process: a. Description, b. Examination and c. Articulation of Learning.

A. Description:

Description of learning Experience in an objective and comprehensive manner.

Questions framed in lines of following parameters.

- What took place?
- When and where did the experience in question take place?
- Who was and was not present?
- What did you and other do/not do?
- What did you see, hear etc?

B. Examination:

Examination of learning opportunities in light of previously identified goals or expected outcomes of Learning.

Questions framed in lines of following parameters

- In what ways did you succeed and do well?
- In what ways were you challenged?
- How did this experience make you feel?
- How are your perspectives/ thoughts in light of your experience?

**C. Articulation Of Learning:**

Acknowledges the learning experience that occurred and establishes goals for future action in the learning process.

Questions framed in lines of following parameters

- What did you learn?
- How did you learn it/
- Why does it matter?
- What will I do in light of it?

**Develop The Simulation Storyline:**

- Describe the Scenario
- Identify Critical Events
- Outline the information that the facilitator will provide at different points during the stimulation.
- Make sure the critical events and overall storyline support the determined training objectives of the course and the simulation based activity.
- Consider
- Does your storyline flow?
- Is this simulation representative of a realistic event that would happen.
- Will this simulation provides students with a authentic learning opportunity.
- Is the simulation designed to ensure participation of all learners?

**Deal Model:**

The DEAL Model was developed by Dr. Sorato L. Ash of North Carolina State University and Dr. Patti H. Clayton of PHC Ventures/ Indiana University Indianapolis. Their work on reflective practice in the context of applied and experiential learning has been widely used across North American Secondary institutions as a guiding framework for critical reelection.

**Deal Model For Critical Reflection:**

Deal Model for Critical Reflection Framework describes reflection as a three-step process. Description, Examination & Articulation of Learning.

**Description:**

Describing Learning Experience in a comprehensive manner.

Guiding Questions:

- What took place?
- When & where did the experience in question take place?
- Who was and was not present?
- What did you and another do/not do?
- What did you see, hear etc.?

**Examination:**

Examining opportunities for Learning on basis of Expected Learning Outcomes.

Guiding Questions:

- In what ways did you succeed and do well?
- In what ways were you challenged?
- How did this experience make you feel?
- How were your perspectives/ thoughts in light of your experience?

**Articulation Of Learning:**

Acknowledges and Establishes learning experience and future actions in the process of Learning.

**Guiding Questions:**

- What did you learn?
- How did you learn it?
- Why does it matter?
- What will I do in light of it?

The chart below includes examples of Learning objectives/ outcomes in different contexts.

Sl. No.	Context	Objectives/ Outcomes	Sample Source
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1	Teaching Pedagogies	To enhance student Involvement	Andrew, J., & Meligrana, J. (2012)
2	Focusing on various areas of Experiential Learning	To understand the practical dimensions.	Botelho, W., Marietto, M., Ferreira, J., & Pimentel, E. (2016).
3	To include teaching pedagogies taking into consideration Artificial Intelligence	Artificial Intelligence based teaching pedagogy.	Shaw, Hughes, PG and Hughes, KE. (2020) C. & Switky, B (2018)
4	Framework for inclusion of Artificial Intelligence	Artificial Intelligence based curricula.	Hughes, PG and Hughes, KE. (2020).
5	Learning through Experiential Approaches	Higher involvement of students in learning process.	Levin-Banchik L. (2018)
6	Evaluating new patterns to analyze trends in Experiential Learning	Technology focused Learning.	Merideth, R & Yaseen, R. (2000)

**CONCLUSION:**

There is no rapid change in learning theory in accordance with the changes in Technology. AI has to be incorporated in the Learning Theory. AI enabled Management curriculum has to be developed. Continuous Improvement has to be given utmost importance in Artificial Intelligence based Learning.

**REFERENCES**

1. Andrew, J., & Meligrana, J. (2012) Evaluating the Use of Role Playing Simulations in Teaching Negotiation Skills to University Students, *Creative Education*, 3(6): 696-702.
2. Botelho, W., Marietto, M., Ferreira, J., & Pimentel, E. (2016). Kolb's experiential learning theory and Belhot's learning cycle guiding the use of computer simulation in engineering education: A pedagogical proposal to shift toward an experiential pedagogy, *Computer Applications in Engineering Education*, 24(1): 79-88.
3. Shaw, C. & Switky, B (2018) Designing and Using Simulations in the International Relations Classroom, *Journal of Political Science Education*, 14 (4): 523-534.
4. Hughes, PG and Hughes, KE. (2020). Briefing Prior to Simulation Activity. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; Available from: <https://www.ncbi.nlm.nih.gov/books/NBK545234/> Kolb. D. A. and Fry, R. (1984).
5. Experiential Learning: Experience as the source of learning and development. Englewood Cliffs, NJ: Prentice Hall Lateef.F. (2010).
6. Simulation-based learning: Just like the real thing, *J Emerg Trauma Shock*, 3(4): 348-52.
7. Levin-Banchik L. (2018) Assessing Knowledge Retention, with our without simulations, *Journal of Political Science Education*, 14 (3): 341-359.
8. Maier, H. R., Baron, J., & McLaughlan, R. G. (2007) Using online roleplay simulations for teaching sustainability principles to engineering students, *International Journal of Engineering Education*, 23:1162-1171.
9. Merideth, R & Yaseen, R. (2000) Using Role-Play Simulations to Teach Environmental Decision Making and Conflict Resolution Techniques, *Environmental Practice*, 2,2, 139-145, DOI: 10.1017/S1466046600001356
10. Stover, W. J. (2005) Teaching and Learning Empathy: An Interactive, Online Diplomatic Simulation of Middle East Conflict, *Journal of Political Science Education*, 1(2): 207-219. White, G. B., Dietrich, G., and Goles, T. (2004) "Cyber Security Exercises: Testing an Organization's Ability to Prevent, Detect, and Respond to Cyber Security Events," in Proceedings of the 37<sup>th</sup> Hawaii International Conference on System Sciences, Los Alamitos, CA: IEEE Computer Society Zamboanga,
11. B. L., Ham, L. S., Tomaso, C. C., Audley, S., & Pole, N. (2016) "Try Walking in Our Shoes": Teaching Acculturation and Related Cultural Adjustment Processes Through Role-Play, *Teaching of Psychology*, 43(3): 243-249.