

An Empirical study on effectiveness in simulations using Digital Media in Finance class room

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ABSTRACT

Digital media has been used both as a tool for learning and destruction of one's self among students today. An attempt to make it as a learning tool was tried in the Finance class in a college. When the news of ban on cell phones in class is brought in by the government, a redirection of the user can enhance the better use rather than a complete suppression of using cell phone among college students. Also importance of digital media has been proved by the use of cell phone in abundance these days. Though it works as a menace it has its own advantages. We converted our class room into a trading floor in Finance class and worked on stock market simulation. This paper is an empirical study based on the survey of the participants in simulation in a class of 30 students. It studies the learning process among the students using digital media and analyses the response using correlation.

1. Introduction

The traditional method of teaching only with the black board has been replaced today with the digital technology and its advancement in the learning arena. We find lot of online learning websites, class rooms and simulations. These when carried on enhances the learning multifold. One such is simulation through stock market websites for students. The moneybag website has been used in this study in the class room and it has benefitted the student community with its nuances of practical learning. It teaches much more than the theoretical chalk to talk class room techniques. This study thus aims at knowing the benefits of the practical learning and it correlates the performance of the students with the survey in which they interact about the benefits of the study

2. Learning through digital technology

Reading comprehension is an area of weakness for many students, including those with disabilities. Innovative technology methods may play a role in improving teacher readiness to use evidence-based comprehension practices for all students. Ely et.al. The experiential learning which is extended to post secondary instruction in business administration and finance is extensive these days and it is evolving rapidly with technology. "A number of authors have studied the impact of using trading simulation exercises in finance related courses. Alonzo, Lange, and Sickens (2000) study student feedback regarding futures trading simulation and find that the experiential nature of the simulation exercise contributes to student learning and enjoyment". (Mofit et.al. 2010, 66)

Understanding how money and investing works is something that we should all learn early in life, but for some people, investing is so foreign that they don't know where to start. Even the concept of numbers can be intimidating to them. Fortunately, there are ways to make money management both fun and interesting. This is where online stock market simulators can come in handy. (Gethard

2018) The need for these types of learning is emphasizes owing to the variety of students and the nature of subject taught in Finance courses. Moreover the jargons used in this subject make it essential the "While it is commonly known among academics that some students tend to be 'concrete' learners and others are more 'abstract' learners, Gardner (1983) identified seven kinds of intelligence: verbal/linguistic, logical/mathematical, spatial, interpersonal, intrapersonal, bodily/kinesthetic and musical. The traditional classroom teaching style tends to emphasize the first two intelligences and, accordingly, students who learn best by speaking, writing, reading, calculating, questioning and experimenting will benefit most from these approaches (Grinder et. al 1999). Thus, other types of educational experiences are needed to cater for those students that are visual, interpersonal or intrapersonal learners"¹.

3. What is Simulation?

Simulation is a technique for practice and learning that can be applied to many different disciplines and types of trainees. It is technique (not a technology) to replace and simplify real experiences with guided ones, often "immersive" in nature, that evoke or replicate substantial aspects of the real world in a fully interactive fashion. (Lateef 2010)

Business Simulations are really an immersive experience for students which allow for a wide variety of teaching methods; including experiential learning, reflective learning, action-orientated learning and the flipped classroom. Business simulations offer significant benefits for students and teachers

¹www.niu.edu/facdev/_pdf/guide/learning/howard_gardner_theory_multiple_intelligences.pdf Howard Gardner's Theory of Multiple Intelligences, Northern Illinois University, Faculty Development and Instructional Design Center. Googled on 17.9.2018.

alike, with the potential to improve student engagement, learning outcomes and workforce readiness².

Structured simulations can guide the students in practical learning and work out the strategies. Also a properly structured simulation provides students with the motivation to learn, an opportunity to explore strategies in an environment conducive to experimentation, and an immediate instructional benefit of watching their decisions affect the outcome of the collective simulation experience. (Russel 2008)

The structured simulation has a drawback. It allows investment in Equity stocks and debentures and like. The option, swap ..., a wide range of financial commodities donot gets an opportunity to be explored. Also researchers in behavioral finance have widely documented the "snakebite effect," which suggests that investors who experience a painful loss (or otherwise unsuccessful investment) are less likely to invest going forward (N of singer, 2011,). Thus, some academician have avoided the use of such simulations, or at least have not had extensive classroom discussion on the results, owing to the fear of dissuading students with poor performance from pursuing a career.

4. Meaning of stock market simulation

It is creating an artificial trading session in the class room. Where each student is an investor. The students are given cash balance and target of purchase and are able to watch out their progress on a daily basis during the trading time in the stock exchange. The class room becomes a trading floor and the game of investing is introduced among the student community. The recent technology helps in online trading even in class room. Though there is no real time investment in these games, they give immense practical knowledge that one can gather through practical learning.

5. Stock trading game methodology

Game participants. The game participants consisted of 30 students from a small residential arts and science college with MBA Department.

Knowledge assessment. Investment knowledge is measured with Likert scale after the simulation ends. The scope of questions included the fundamentals of investment.

Curricular role. The simulator ran for a period of two months. With investment thrice a week a close watch on the portfolio by the students was encouraged.

For the following questions a survey was conducted in the class room for 30 students. Do you have knowledge of computer? Where you able to do simulation in the stock market? Where you able to understand & learn what you did? Did you like the simulation? Was it helping you to get an experience in how you have to invest in real time stock

market? Was it helping you to get an experience in how you have to invest in real time stock market? Will you invest in stock market given a chance? Does stock market simulation give as the feeling of trading floor? Does the practical learning get enhanced through this simulation? It was successful or a failure? Does it have a scope for further learning? These were the questions asked. The answers were tabulated using Excel programme.

6. Analysis of the Simulation

The marks for the simulation showed a score of greater correlation with their learning abilities as the marks for the practical theory and simulation had a high correlation. .7486 was the correlation coefficient and the r square showed a result of .56. The correlation in question no 7 has similar finding. The students were able to learn and understand what they did.

Q5	0.2176	0.147519184
Q6	1	1
Q7	0.4538	0.20593
Q8	0.01534	0.124395013
Q9	0.0299	0.113898541
Q10	0	-0.003076166
Q11	0.056	0.235608007
Q12	0.0016	-0.040217165
Q13	0.091	0.030959691
Q14	0.04	-0.02391997
Q15	0.0058	0.076408321

7. Conclusion

As it is evident from the answers in the survey, practically that all students enjoyed the experience of the game and believed there are positive outcomes for their learning. This is well in line with the existing literature. It overwhelmingly reports a positive experience for students who were involved in experimental learning. Relatively, more positive results are observed in the enjoyment and understanding of the simple concept through non traditional method of teaching in practical subjects .A correlation between high simulation score followed by the score in the practical gives a conclusion that the learning was fruitful. The lack of correlation between rest of the questions may be due to various other factors like inadequate response in practical exam, lack of sensitive reply while answering the survey and not understanding the technical jargons.

²Googled at <https://www.smartsims.com/business-simulation/> googled on 15.9.2018.

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