Effectiveness Of Simulation In Teacher Education: With Reference To Private Schools In Haryana

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Abstract:
In order to bridge the gaps between the classroom content and practical application of the same it is very important that a teacher should be exposed to different simulation exercises so that the level of learning can be improved. simulation is one such exercise where people can learn about the unseen and random scenarios and even they can control their reactions, this is very important because a teacher is not expected to be impulsive in behavior and should have a thought process which is better than the respective students. This present study is conducted in selected schools of Haryana and a pre and post Ex-facto study is conducted on the teachers of the same. Descriptive statistics is considered for analysis of data.

Keywords: Secondary education, Training, Simulation.

Introduction

There was a time when the authorities related to primary and secondary education believed that trainings provided at the degree level are sufficient enough to enhance the knowledge level of teachers but with the passage of time, belief system of the concerned agencies and authorities haschanged a lot and they are making all the efforts to change the system of learning. Like in case ofB.Ed. course real time training is being provided to the aspiring teachers, where they have to teach in a school for a particular period of time. Other than this a number of exercises are involved in the curriculum of the same.

In order to bridge the gaps between the classroom content and practical application of the same itis very important that a teacher should be exposed to different simulation exercises so that the level of learning can be improved. Rather it is not necessary that all the simulation exercises are useful for the teachers at all levels but then again there can be a series of

discussions to improve the learning process and lay down the foundation for future programs of such nature.

As a matter of fact simulation is one such exercise where people can learn about the unseen and random scenarios and even they can control their reactions, this is very important because a teacher is not expected to be impulsive in behavior and should have a thought process which is better than the respective students. Then on the other hand simulation exercises can help the teachers to understand the strengths and weaknesses of the students and help the teachers to make them overcome the same. Even the learning from such type of programs can be viewed asa confidence building exercise where both the teachers and students get benefitted. **Hovancsek et al. (2013).**

Then in the present scenario, the knowledge level of the students is required to be appropriate according the highly demanding and competitive work environment and according the same the responsibility of the teacher and even the schools has also increased to a particular level. Today mere classroom teaching is not sufficient rather practical exposure to different dimensions of curriculum is equally important. In this regard if a teacher is not equipped then it will be difficult for him or her to impart the right kind of education with the students. **Smith et al (2014)**

Apart from the education system, where simulation is used as a tool for higher order of learning, like in case of aeronautical engineering, astronaut's training, flight simulation, engineering education, sales training, insurance and many other educational and professional fields. As a matter of fact simulation is required in all these fields to know about the precautions and safety measures in due course of actual functioning of the same. **Sanford (2014)**. Here it is important tomention that all the above mentioned fields are technology based and even the related simulationare based on the pillars the technology, so it can be said that technology is the integral part of simulation exercises.

In education system it is very important that the relative outcomes are efficient enough to deal with the increasing demand of perfection in different fields of application and simulation is the answer to such questions.

Review of Literature

Stearns et al (2013): The researcher stated that in most of the simulation exercises the

respectiveparticipants are required to play a role and learn to respond in a given situation, in the field of education classroom related scenarios are developed and the reactions of the aspirants are noted, on the basis of these responses multiple responses are chosen and the best suited reaction for a given situation is announced and the aspirants are asked to exercise the same as and when the relative situation arises.

Hume (2015): Stated that in the Indian scenario of secondary education is gradually becoming effective, but the this system of learning is limited to private schools, minimum of the government and aided schools are exercising the same. Many of the students are coming from rural backgrounds and even in the urban areas a number of primary and secondary schools are operating, hence the related agencies should develop a system where all type of schools are benefitted by the same.

Schools Charter (2015): The researcher stated that the teachers who are joining schools after taking up the basic education may also look forward to advance training in the form of simulation exercises. There are a number of agencies who will be interested in providing such type of trainings. Though at present the number of such trainers is less but then again if the demand increases then many aspirants may come in way to cater the need of the same.

Objectives

- To evaluate the effect of simulation based learning on the teachers of private schools.
- To analyze the difference in the knowledge of teachers after the exposure to simulationexercise.

Hypothesis

- H_0: Simulation exercises in the teacher's education have positive effect on learningprocess.
- H_1: Simulation exercises in the teacher's education do not have any effect on learningprocess.

Research Methodology

Sources of Data

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Research is a two way process i.e. once a person explores data it start to give a better insight of the topic at hand. On the other hand there are a number of avenues that are explored by the researcher to follow the trail related to existing data. In this present study, the researcher found a particular number of studies that are related to the performance of teachers at primary and secondary level. Apart from the said stature of secondary data some amount of primary data was also collected.

Secondary Data
Secondary data is another form of data exploration where many of the available sources of data are touched in order to get a better insight of the topic at hand. As far as secondary data is concerned, many of the research papers (national and international), reports published different agencies like FICCI, NCTE, NCERT, UGC, etc. some of the articles from newspapers and magazines were also referred.

Primary Data
Primary data is the first hand data collected form the selected respondents, in this present study the main respondents are the teachers working at selected secondary schools.

Sampling Area
The area of sampling is Haryana and 5 public schools are chosen as the sample units. This is because of the reason that only these schools have permitted the researcher to conduct the simulation test in a controlled environment.

Sampling Technique
This present study is based on purposive type of sampling, this is because of the reason that it was not possible for the researcher to touch all the available units of population and also to find the appropriate sample out of the same, this is because of the reason that the population is very vivid and the time limit of this study does not allow to contact more than 100 respondents at a time.

Sample Size
Sample size in the present study is 100 respondents; this sample size is taken to become comfortable in the analysis section. As a matter of fact there are 123 teachers in the selected schools and based on the average attendance and performance of the teachers only 100 teachers were selected as sample.

Data analysis and interpretation Pre-test Score

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Component	Average Score	Level
Behavior with students	48.5	Moderate
Topic explanation	53.47	Moderate
Use of White/Black Board	43.55	Moderate
Communication Language	37.02	Low
Body Language	38.41	Low
Self-Learning	44.09	Moderate
Behavior with parents	39.71	Low
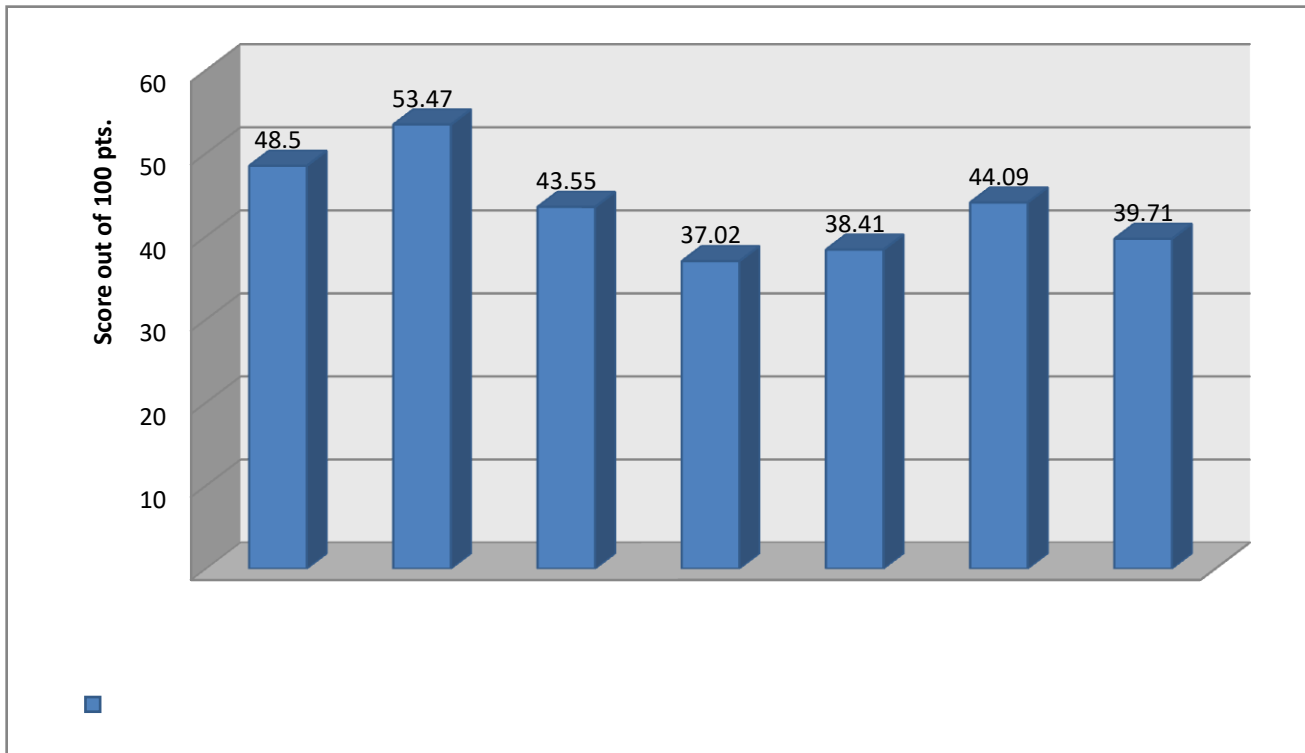
0	Behavior with students	Topic explanation	Use of White/ Black Board	Communication Language	Body Language	Self-Learning	Behavior with parents
Series1	48.5	53.47	43.55	37.02	38.41	44.09	39.71

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**Figure 1- Pre-test score of the respondents**

Interpretation

As can be seen from the above given chart and table, the average score is not so lucrative in terms of components under study. From the point of view of the researcher these components arethe most important for any given teacher at the primary and secondary level.

The pre-test score states that for most of the components, average score is either moderate or lowand as a matter of fact the respective teachers were not aware of the same, they are following their basic training at the level of B.Ed. and other teacher training programs they have undergone.

The average value is calculated from the responses of 100 teachers selected from different schools of Haryana, the details of the same is given in the above given matter. The researcher is having no intention to blame to traditional system of teachers training, either at the level of B.Ed.or other teacher's training program.

Post-test Score

Component	Average Score	Level
Behavior with students	67.22	High
Topic explanation	71.42	High
Use of White/Black Board	80.53	High
Communication Language	59.18	Moderate
Body Language	60.31	High
Self-Learning	71.55	High
Behavior with parents	63.52	High
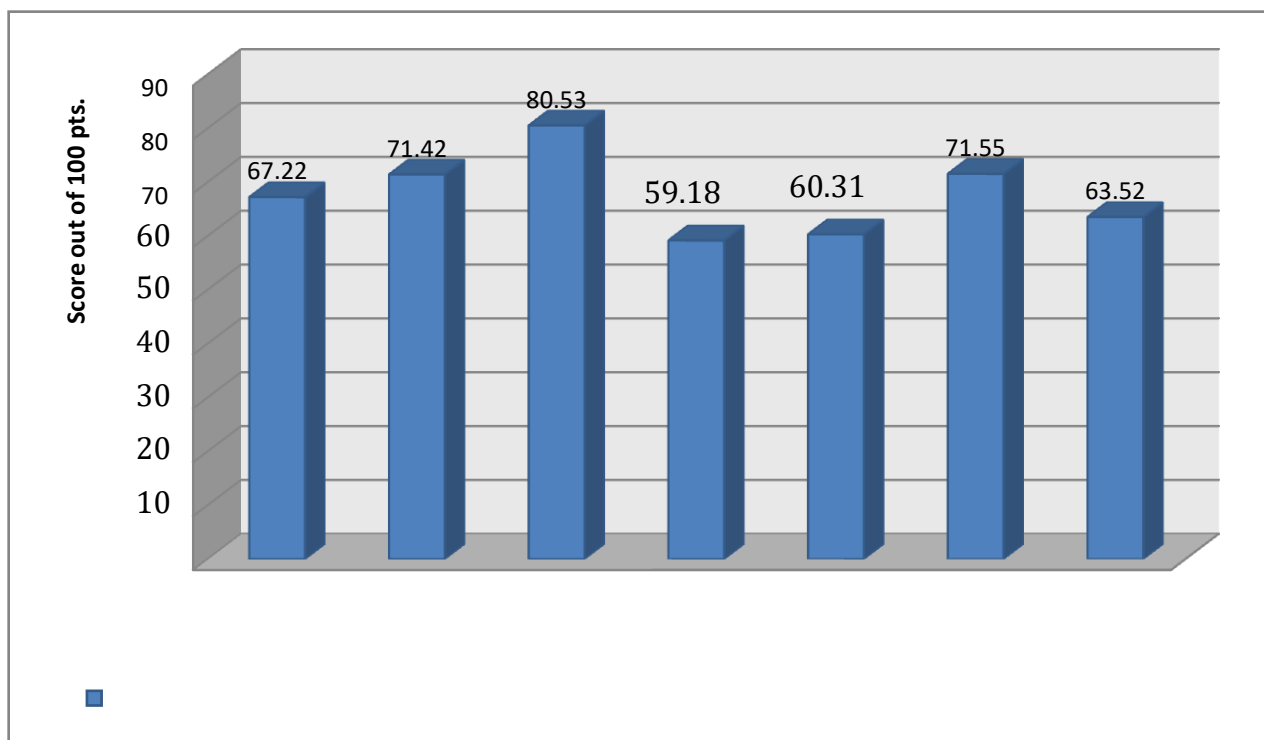
0	Behavior with students	Topic explanation	Use of White/Black Board	Communication Language	Body Language	Self-Learning	Behavior with parents
Series1	67.22	71.42	80.53	59.18	60.31	71.55	63.52

Figure 2-post Test score of the respondents
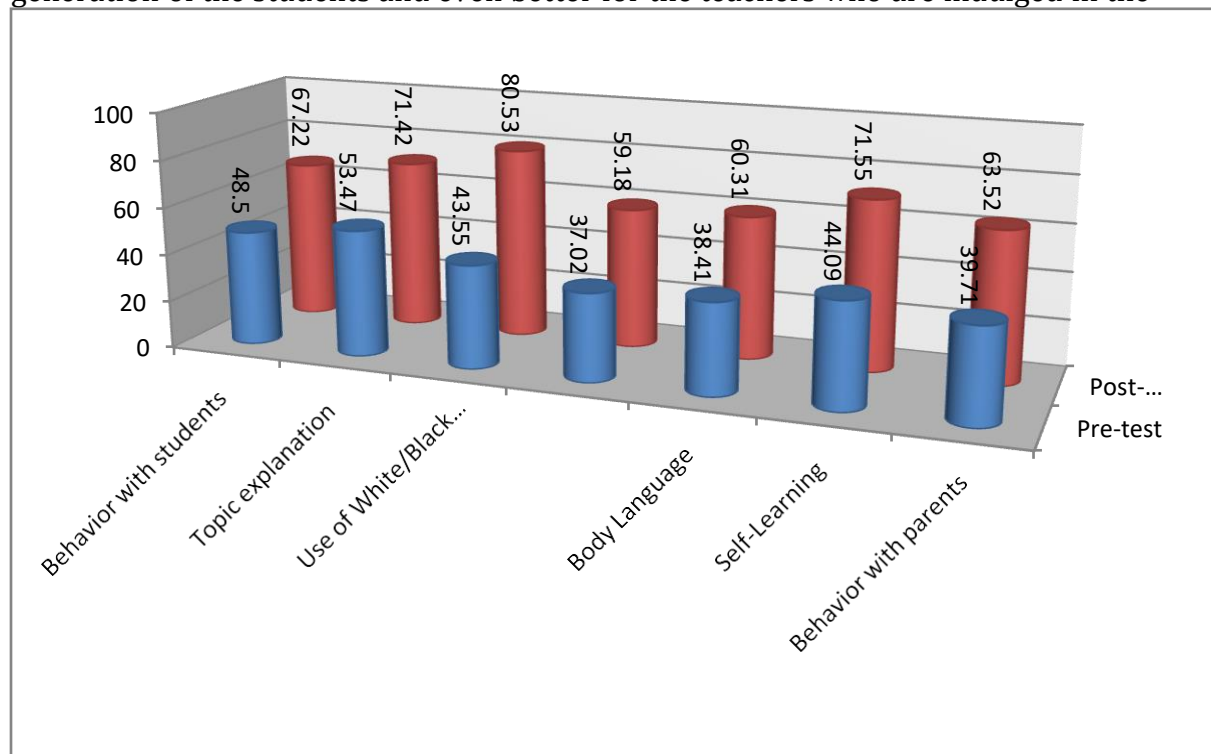
Interpretation

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In the above given table and chart, the post test results are given. These results are calculated after the respondents are exposed to the said training sessions of 4 hours. Due to the constraint oftime and other types of adequacies only four hours are allowed from the management of respective schools.

As a matter of fact the results show that in a four hour session some amount of change is witnessed in the routine teaching practices of the respondents. For most of the components the results are converted either into high from moderate or into moderate from low.

This states that if more training sessions of these kinds are exercised then the respective teachers can perform at a higher level. At the end of the day this is beneficial for the next generation of the students and even better for the teachers who are indulged in the

respective teaching process.

Figure 3: Comparison of Pre and Post Test results

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Result

From the above given analysis it can be viewed that in most of the cases the results are favorable

i.e. the behavior of the respondents has changed after the respective training program and that too in a positive manner, so on the basis of the same the null hypothesis 'Simulation exercises in the teacher's education have positive effect on learning process' can be accepted and thealternate hypothesis can be rejected.

Conclusion

As can be seen from the above charts and table, that if a particular amount of training is provided to the teachers of secondary level then certainly there will some amount of improvement in their performance. The history of simulation in education is not every old, but still it will take time to catch up the pace according to the present need of the same. Above given pre and post results is the proof that if a professional trainer is hired and the simulation exercises are conducted in the guidance of the same then the relative effects will be far reaching. Obviously a particular amountof cost is involved in it, so the schools and teachers can contribute for the same and conduct suchtraining programs.

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