



Original Research Article

Effects and impact of an innovative pair and share learning strategy on academic performance of slow learners in I MBBS

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ARTICLE INFO

Article history:

Received 12-01-2020

Accepted 24-01-2020

Available online 14-03-2020

Keywords:

Innovative

Pair and share

Slow learners

Academic performance

ABSTRACT

Introduction: Identifying a slow learner and involving him/her in an active learning process like pair and share has shown to build a meaningful understanding of subject and also beneficial for long term learning and self directed learning skills. The objective of the study was to analyze the effects and impact of an innovative pair and share learning strategy on academic performance of slow learners.

Materials and Methods: 42 Slow learners in Department of Physiology were identified with a score of <35% following a formative assessment and were exposed to an innovative pair & share learning strategy which included internal discussion & presenting their pair's topic in front of whole group. Activity included pretest, posttest and feedback questionnaire.

Results: Statistical analyses were done using Student's paired t test and SPSS. There was slight improvement in the pretest and posttest scores but was not statistically significant. Majority of the students were satisfied and some were very satisfied with this type of learning strategy. Many of the students expressed that this method of learning module was enjoyable, improved their knowledge, helped them understand and remember specific information effectively and provided positive feedback because of peer feedback.

Conclusion: The innovative pair and share learning strategy will facilitate slow learners to develop valuable learning skills for lifelong and more efforts need to be geared towards popularizing this module for improving productivity.

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1. Introduction

A slow learner is the one who has the ability to learn necessary academic skills but at a rate & depth below average of the same age peers.¹ Identifying a slow learner student early is always important as sometimes high performing students fail to perform well after entering into medical colleges. One of the known facts is that during the course of an hour long lecture, attention is at its peak only during the first 10 to 20 minutes. Later on very little is recalled after more than 20 minutes of continuous concentration.² Because of the increase in demands for a lifetime of continuing medical education, future medical doctors should take responsibility for their own learning.

These facts also make us understand that a pedagogic shift in higher education from the traditional teacher centered to the student centered approach in teaching is required and the role of teachers needs to be changed from suppliers of information to facilitators of learning.

Educational research has identified the potential advantage of interactivity that promotes mentally active learning & improved learning outcomes. A very well established theory explains that adult learners are motivated when learning is participatory and actively involves them in functioning and reflecting on problems that are seemingly relevant.³

Active learning strategies are supported by adult learning theories and have also been shown to be beneficial for long term learning and the development of self directed learning skills.^{4,5} Pair & share is a cooperative learning technique.

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Cooperative learning allows students the opportunity to work together to build a meaningful understanding of subject material.⁶ The objective of the study was to analyze the effects and impact of an innovative pair and share learning strategy on academic performance of slow learners.

2. Objectives

1. To study the effects of innovative Pair & Share learning strategy on academic performances of Slow Learner in I MBBS.
2. To gather perception of students involved in the intervention about innovative method.

3. Materials and Methods

After obtaining the ethical committee clearance, an educational intervention was done in the department of Physiology. Informed consent was obtained by the study group. Following a formative assessment (I Internal Assessment) for MBBS I students in Physiology, the struggling students were identified with a score of <35%. 42 students were involved. They were given the topics for discussion & be prepared for tutorials. On the day of tutorials, students were paired & instructed to discuss their topics with each other. After the discussion time of 20 minutes, they were asked to present their pair's topic in front of the group. The activity included pretest and post test. The feedback questionnaires were validated and included with five point Likert scale.

For Statistical analysis, the Student's paired t-test was employed to compare the mean marks of the different groups. The data was analyzed by using the SPSS and p values <0.05 was considered as significant.

4. Results

Table 1: Comparison of pretest and post test

(n= 42)	Mean + SD	p Value
Pretest Score	5.1 + 1.90	0.855
Posttest Score	5.82 + 1.95	

5. Discussion

Every student has his/her learning style. A learning style is a student's steady way of responding to and using stimuli in the context of learning. Learning is defined as the composite of characteristic cognitive, affective and physiological factors that serve as an indicator of how a learner perceives, interacts with and responds to the learning environment.⁷ It is always necessary for the learner to know his strength or weakness and to decide on a proper learning strategy.⁷

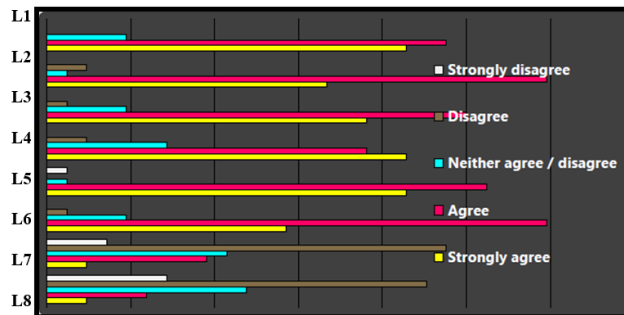


Fig. 1: Students feedback on effects of innovative Pair & Share learning strategy

L1 - This method of learning module was enjoyable and fun as it generated more fun and interest in learning

L2 - This method of learning module can help me improve my knowledge

L3 - This method of learning module can help me to understand and remember specific information and ideas effectively

L4 - Increasing the frequency of this method of learning module can help increase individual thinking and interest

L5 - This method of learning module can help me improve self efficacy

L6 - This method of learning module can impart positive effects mediated through observation and peer feedback

L7 - I experienced problems during the process of learning

L8 - This learning module was too long and required too much time

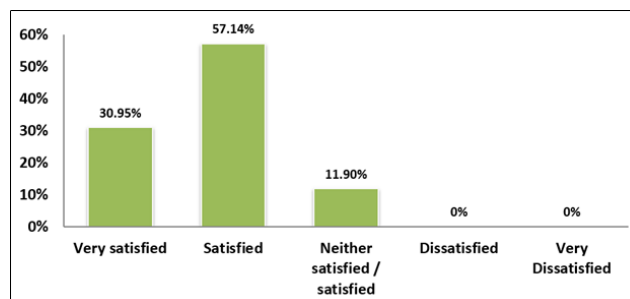


Fig. 2: Students satisfaction with Innovative Pair & Share learning strategy

In the present study, there was some improvement in the posttest scores but this was not statistically significant. Majority of students agreed that this method may help them to improve their knowledge and also to impart positive effects mediated through observation and peer feedback.

Students expressed satisfaction with implementation of innovative pair & share learning module. They also agreed that this method of learning module was enjoyable and fun as it generated more interest in learning.

Learning takes place from uncomplicated to complicate. If for some reason the student has not learnt the basics, it is pointless to teach him the higher topics. Innovative Pair and Share learning technique can help enhance cognition.

Cautious analysis of the students' performance in the examination, diagnosing difficulty areas and identifying an ideal pair to share the knowledge can be the key aspects in the success of innovative pair and share technique of learning. Once the difficult areas are identified, we need to plan the learning experiences to teach the basics to understand the given topic.⁸ It is very teacher's belief that the foundation needs to be strong at the primary level so that the next levels of learning can be built upon with much ease. It is by experience that we have learnt, once the basics are taught, the learning process is accelerated and the slow learners can comprehend and grasp the given topics of the class to understand the topics taught.⁹

Resolving underachievement teaches us a great deal about learning, and makes teaching as rewarding as it gets.¹⁰ So if a student is to be judged he is compared with the progress he has made and not the general result of the entire class.^{11,12}

6. Source of Funding

None.

7. Conflict of Interest

None.

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Cite this article: Lohitashwa R, Soumya B A , Suneeta K . Effects and impact of an innovative pair and share learning strategy on academic performance of slow learners in I MBBS. *Indian J Clin Anat Physiol* 2020;7(1):16-18.