Pakistan Social Sciences Review
www.pssr.org.pk

RESEARCH PAPER

Role of Peer Tutoring on the Intrinsic Motivation of Student Teachers in Pakistan: An Experimental Investigation

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PAPER INFO

Received:
January 06, 2020
Accepted:
March 18, 2020
Online:
March 31, 2020

Keywords:
Peer Tutoring, Intrinsic Motivation, Student Teachers

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ABSTRACT

Peer tutoring is an adaptable, peer- facilitated approaches in which students serve as tutor and tutee. It focuses on shy and slow learner students and minimizes their fears that motivate them intrinsically. Intrinsic motivation drives a person to perform an assignment for the sake of his own satisfaction and pleasure. The purpose of the study was to find out the difference of peer tutoring on the intrinsic motivation of student teachers. Quasi experimental design of quantitative approach adopted to conduct the study. The population was comprised of all the prospective teachers who are enrolled inB.Ed. Hons. The Sample was comprised of final year student teachers (session 2016-2020) enrolled in the B.Ed. (Hons) program in Division of Education, University of Education, Lahore. To collect data Intrinsic Motivation Scale (IMS) developed by Ibrahim and Weal in 2016 was adapted. The study concluded on the basis of the finding that there was significant effect of peer tutoring on the intrinsic motivation of experimental group as compared to results of control group with regard to all three factors of Intrinsic Motivation Scale (IMS). It is recommended that similar kind of study should also be conducted by utilizing mixed method approach to validate the results of study

Introduction

In modern world people prefer to live with latest trends. People routine work has also been changed due to technological advancement. To cope up with continues advancement in every field of life there is need to bring change in our educational system by revising and updating curriculum including teaching

methodologies at regular bases. In 21st century, teachers and students both preferred collaborative setting in classrooms where students can cooperate to each other (Bogler, 2018).To meet the academic standards there is need to change the tradition way of teaching into innovative teaching methodologies like micro-teaching, computer assisted teaching and peer tutoring etc (Topping, 2009).

Peer tutoring is a collaborative and supportive learning style that allows students in a small group setting for assistance and support each other to gain knowledge and skills in an educational setting (Briggs, 2013). It is one of the innovative teaching methods, where peer plays the role as a teacher in which slow learners are paired with active learners to enhance their learning by dividing the class into small groups of students (Gucciardi, Mach, & Mo, 2017; Hott & Walker, 2014; Sporer& Brunstein, 2009; Wadoodi and Crosby 2002). All students actively participate in the form of groups. Furthermore, it also focuses on shy and slow learner students and minimizes their fear that allows to motivate those(Nawaz & Rehman, 2017).

In peer tutoring, student share information with other group members (Hilde, Duran, & Topping, 2015). In classroom setting teacher make pairs of students to teach each other (Nawaz & Rehman, 2017; Ryan & Deci 2000). This instructional strategy is used to improve the student's behavior during group tasks assigned by their teacher that permit them to have benefit intrinsically through teaching and learning from one another in the classroom setting (Scruggs, Mastropieri &Marshak 2012). Existing knowledge of peer tutors proved beneficial for them to incorporate with new knowledge (Roscoe & Chi, 2007). Peer tutoring can be used as an intervention which is flexible and adaptable to integrate into many areas (Conklin, 2014).

Nawaz and Rehman (2017) explored that peer tutoring effects the students of secondary schools in mathematics by using true experimental study. Sample of 200 students was selected from two schools. Academic achievement of weak students was increased by using this strategy. Comfort & McMahon (2014) explored that peer tutoring is a method that is proved beneficial in improving student's achievement. As students achieve high grades that were taught through peer tutoring as compared to those students that were not peer tutored and also to the previous year students that were not peer tutored.

Intrinsic motivation (IM) is important to gather student's eagerness to pursue successful learning (Ryan & Deci, 2017). Particularly, reciprocal peer tutoring motivates a student intrinsically and promotes socially shared cognitions and peer learning (De Backer, Van Keer, & Valcke, 2015). IM drives a person to perform an assignment for the sake of his own satisfaction and pleasure (Lee, 2012). Such motivation related with the satisfaction of student, high self-esteem and great progress in academic assignments (Gillet, Vallerand, & Lafreniere, 2012). Challenge, curiosity, control, imaginary, competition, cooperation and recognition are factors that can improve IM. When students play the role of teacher he not only

become motivated but also learn and understand the material that is supposed to be taught (Brophy, 2013).

IM refers to behavior that is inspired by the inner rewards of a person or it is a motivation that naturally satisfy a person (Cherry, 2019). It drives a person to perform his assignments for the sake of his own satisfaction and happiness (Coon & Mitterer, 2012). A student become motivated by receiving responsibilities, when other people trust on his abilities, when he collaboratively works with his peers and when he is reinforced to perform the task in a competent manner (Ryan & Deci, 2000).

Razak and See (2010) studied the usefulness of online peer learning among students to promote the concept of achievement in academic and also their motivation. They used quasi-experimental design, their sample193 students. Results proved that there was significant difference was seen in motivation and academic achievement due to the peer tutoring. Austin (2008) investigated the effects of peer tutoring on school going students for this purpose he selected the students of fifth grade to solve their math problem by using peer tutoring and also its impact on student's motivation. He found peer tutoring is a useful way to improve student motivation.

The study aimed to identify the effect of peer tutoring on IM as very limited major research work has been done so far on this area in Pakistani context. It may be helpful for the administration and faculty of higher educational institutions by highlighting the importance of different and innovative teaching methodologies like the peer tutoring. The results of the study may be significant to identify those factors that motivate students of higher education to learn more efficient and effective manner as they have to become a productive member of society in the near future. Peer tutoring may prove beneficial for students to learn in a better way that may not only motivate them. So, the study aimed to identify the effect of peer tutoring on the intrinsic motivation (IM) of student teachers, to accomplish this task the researcher made an experiment on two groups.

Research Hypothesis

Objective of the study provide guideline to formulate the following hypotheses that are enlisted below:

H_1: Students who receive peer tutoring are intrinsically motivated as compare to those who don't receive.

Conceptual Framework of the Study

The current study was Experimental study in which student teachers taught by utilizing non-traditional teaching methodology that was peer tutoring

and then its effects were examined on the IM of student teachers. So, peer tutoring was independent variable whereas IM was dependent variable.

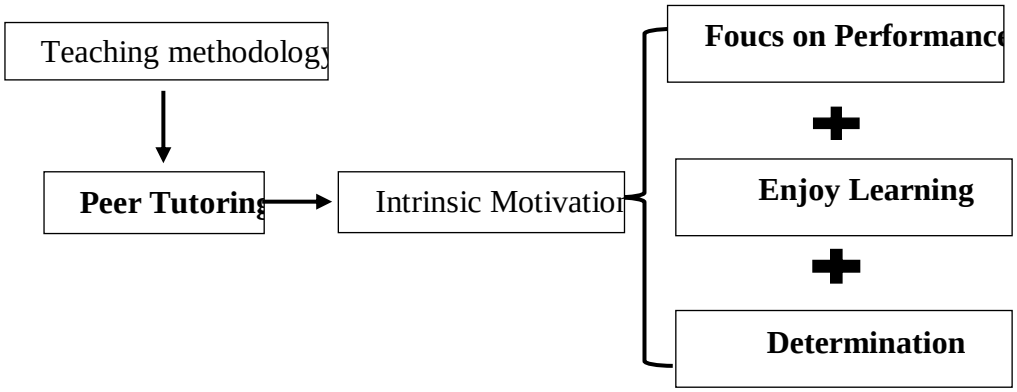

Figure1. Conceptual Framework of the Study

Methodology

The research paradigm of the study was positivism; the study was conducted by utilizing quantitative approach under quasi experimental design (non-equivalent group pretest-posttest design). In this study peer tutoring was independent variable that manipulated and its effect was measured on dependent variable intrinsic motivation (IM).

Population of the study was all student teachers of public universities of Lahore, enrolled in B.Ed. Hons Sample were comprised of seventh semester B.Ed. Hons students. Two sections of the same program were selected after getting permission from the Director of Division of Education, University of Education, Lahore. Students of one section were considered as experimental group and other section were considered as control group. Experimental group was selected by tossing a coin and students were assigned the role of peer tutor by using random assignments.

Procedure

There were two groups selected for intervention in which one was experimental and second one was controlled, belonged to the seventh semester ofB.Ed. (Hons), and the subject was 'Research Methods in Education'. The experimental group was taught through applying the peer tutoring teaching method by the researcher who played the role of teacher whereas students of control group were taught by lecture method. To make homogeneity of control and experimental groups possible, researcher controlled the following extraneous variable that may affect the study: Qualification of teachers, Age of teachers, Teaching Experience, Timing of the class, Location of the class.

The intervention period was consisted of 16 working weeks, 2 classes in each week. There were total 75 students: 36 belonged to the experimental group and 39students were in control group. Students belonged to experimental group were involved in two peer tutoring session in each week. Duration of each class consisted of 90 minutes. Prior to the intervention training for tutoring was arranged for the students of experimental group by researcher which lasts for three days. During intervention the experimental group was divided into nine groups, four students in each group. Where one student played the role of tutor and the other three were participated as tutees.

In first 35 minutes the researcher briefly clears the concepts of students about topic. While implementing the intervention the researcher engage students in their subject related task. Firstly, concept was described to tutees by their tutors, meanwhile they ask questions to them, in order to know their concept clarity. Tutors also pointed out their mistakes or clear their misconception in needed. That practice was continued for 45 minutes.The researcher concluded the session by highlighting the performance of peer tutors in last ten minutes. During intervention researcher help the tutor and tutee as well where they felt any trouble.

Instrumentation

Data of pre-test was collected by researcher from both experimental and control groups. After the intervention data was also collected. For this purpose researcher adapted a questionnaire developed by Ibrahim and Weal in 2016. It had three subscales;

i. Focus on the performance of assigned tasks, ii. Enjoy learning and iii. Determination consisted of 21 items.

Findings

Independent sample t-test was employed to identify the effect of peer tutoring on intrinsic motivation (IM) of student teachers belonged to experimental and control groups. Results of the study are given below:

Table 1
Comparison between the scores of experimental and control groups

	Experimental		**Control**		***t***	***df***	***p***	**d**	**95% CI**	
	M	***SD***	***M***	***SD***					**Lower**	**Upper**
FP	32.40	3.485	28.99	7.507	3.623	148	.000*	0.583	1.548	5.284
EL	25.44	2.325	22.26	6.022	4.338	148	.000*	0.697	1.730	4.646
DET	29.00	3.353	26.21	6.232	3.456	148	.000*	0.558	1.194	4.936
Total	86.85	7.494	77.45	17.946	4.242	148	.000*	0.829	5.005	13.792

Note: FP= Focus on Performance; EL= Enjoy Learning; DET= Determination; d= Cohen's d; CI = Confidence Interval and * = $p < 0.05$(two tailed).

In the abovementioned table results of independent sample t test were presented to find the difference in experimental and control groups about the intrinsic motivation and its subscale: focus on performance, enjoy learning, and determination. The results reflected that students of experimental group were more intrinsically motivated as compared to the students of control group, as the mean score of experimental group (M=88.85, SD = 7.494) was greater than the mean score of control group, M=77.45, SD = 17.946; t (148) = 4.242, p = .000. the magnitude in the mean score difference is (mean difference = 9.4, 95% CI: 5.005 to 13.792was large (Cohen's d = 0.829) effect size.

Similarly, the table also showed that mean difference regarding all subscales of intrinsic motivation (focus on performance, enjoy learning, and determination) in both experimental and control groups were statistically significant as t (148) = 3.623, p<.05; t (148) = 4.338, p<.05;t (148) = 3.456, p = .05. Moreover the effect size of focus on performance, enjoy learning, determination were large as Cohen's d = 0.583, 0.697, 0.558respectively.

Conclusion and Discussion

It was concluded on the basis of the finding of this study that there was significant effect of peer tutoring on the intrinsic motivation of experimental group as compared to results of control group with regard to all three factors of Intrinsic Motivation Scale (IMS). These results are consistent with the results of previously conducted study by Razak and See (2010) that showed that there was significant difference was seen in motivation and academic achievement due to the peer tutoring. A study by Austin (2008) was also supporting the results that peer tutoring was useful to improve student motivation. It is recommended by the researcher similar kind of study should also be conducted by utilizing mixed method approach to validate the results of study.

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