

Peer leader selection: A step forward for assisted peer learning at Aga Khan University

Rehana Rehman, Hasan Salman Siddiqi, Faiza Alam

Abstract

To facilitate experiential learning with assistance from peers, fourteen consented first year AKUH MBBS students submitted an online application along with a written paragraph. Percentage in previous teaching module was also obtained. A training workshop was organized for all the consented students where after pretest and initial orientation, they were divided into two groups; A and B. Facilitators taught concepts of Physiology practical to PLs of Group A and of Pharmacology practical to PLs of Group B respectively. Then PLs of Group A taught PLs of Group B and vice versa with shuffling of students. Comprehension of concept was evaluated by a significant difference ($p < 0.05$) in the pre and posttest results. Nine (64%) students labeled overall assessment of activity as excellent. Ten students were selected on the basis of paragraph writing, end of activity questionnaire and gain in knowledge as a result of comparison of pre and post-test results.

Keywords: Assisted peer learning, Peer leader selection, Training workshop.

Introduction

In the traditional classroom lecture learning, the students acquire knowledge by passive learning with a number of limitations. The process of knowledge acquisition is slow and fails to incorporate multidimensional engagement among students. The students end up with a variety of perceptions and a series of ambiguities. Medical educationists have made a number of attempts to enhance engaged learning and promote active participation of students.¹ In this regard, it has been proposed that self-directed learning is facilitated when concepts are taught in the form of tutorial groups.²

Peer assisted learning (PAL) is one of the student-centered approach in which peers learn from one another. It has been a time-tested tradition that the students seek the guidance of their peers, usually seniors, who belong to the same settings but have a slightly

.....
Aga Khan University, Karachi.

Correspondence: Faiza Alam. Email: faiza.orakzai@gmail.com

higher level of knowledge and experience. It involves active student participation, they learn from each other and take responsibility for their learning.^{3,4} It has been observed that PAL plays an effective role on student's performance in learning of clinical skills.^{5,6} This is because peers know all the difficulties and can counteract them to address the relevant issues and suggest the best possible solutions. The friendly environment relaxes the learners who do not hesitate to ask questions and continue to do so until clarification of concepts.⁷ This kind of guidance engages them in active learning with a better understanding of knowledge while building their confidence at the same time and relieving them of the anxiety that might have grasped them due to incomplete understanding of concepts.⁷ Keeping in mind the academic gains⁸ and facilitation of experiential learning as a result of implementation of PAL the first objective was to analyze the narrative provided by the students who wanted to be Peer Leaders. Furthermore, we wanted to explore differences in achievement pre and post intervention and to investigate the assessment activity using Kahoot, which is a game based learning software.

Methodology

The peer assisted model study was executed from February 2017 - January 2018 in AKUH. The first component of the study was conducted in May 2017, which was selection of peer leaders. For this purpose, all year I MBBS students were informed about the process of recruitment through a power point presentation, however online forms provided further information. The applicants were asked to write a short proposal explaining why they wanted to be a PL with the question: Why would you make a good Peer Leader, considering the skills and responsibilities outlined in the letter? Desk records of all the applicants for previous module were obtained. To shortlist the applicants, a workshop was conducted in May 2017 at AKUH. At the beginning of the workshop, in order to analyze the basic concepts and reacquired knowledge of the participants, a pretest was taken on a software, Kahoot. Being a game-based classroom response system, it actively engaged all students in individual and collaborative quizzes helping the facilitators to bring all the participants at the same

level of attention, at the same time assessing their initial knowledge. Then all participants were given a presentation about PAL after which they were divided into two groups; A and B. Facilitators taught concepts of Physiology practical to PLs of group A and of Pharmacology practical to PLs of Group B, respectively. Then PLs of Group A taught PLs of Group B and vice versa with shuffling of students. The post-test was conducted on the Kahoot software using the same questions as used in the pre-test. Comprehension of concept was evaluated by comparison of pre and post-test results applying Paired t-test where the p-value of 0.05 was considered significant. The workshop was evaluated by the students using an End of Activity Evaluation Performa. The responses were assessed on a Likert type scale ranging from 1-5, where 5= excellent, 4= very good, 3= good, 2= fair and 1=poor. Students were also provided with open-ended questions on PAL and its utility.

Results

The themes that merged in reply to paragraph writing on PAL were:

i. Existing Leadership Qualities: Students opted to be PLs because of their existing leadership qualities like previous experience of captainship, participation in community services, Scout trainings, Girl Guides and events like Bake sales and competitions. They believed that these activities had been essential in enhancing their leadership, management and communication skills.

ii. Teaching and Learning: One of the students responded; "Teaching is the noblest of professions which is not researching about new things; rather it is about teaching the old to the new generation. It is one of the greatest methods to expand one's knowledge and learn how to transmit information from one mind to another. Therefore, I would like to explore and improve my teaching capabilities". One of the students believed that credit for all his A*s in A levels was because of teaching and discussions. Students wanted to get a firm hold on the subject at hand and then improve concepts of others.

iii. Qualities of PL: A good PL needs to be confident, inspiring, passionate, innovative, good listener, capable decision maker, adaptable person and also, should have a sound understanding of one's own self. He/she needs to know the skills, strengths and weaknesses so that these can be used to optimum potential. Students responded that effective communication skills especially listening to what people want to say, working with utmost dedication and adapting effectively in a team are the strengths required for being a PL.

iv. Total number of 14 students participated in the workshop. Table-1 shows overall percentage (%) positive responses of workshops on different variables, which shows (all the responses from good to excellent). Majority of students 9(64%) labeled overall assessment of activity as excellent.

v. Table-2 shows comparison of pre and post-test results

Table-1: Workshop Evaluation by Students.

	Good	Very Good	Excellent
Objectives of the activity defined	0	4 (29%)	10 (71%)
Disclosure statement	1 (50%)	6 (43%)	7 (50%)
Content covered as per defined objectives	1 (50%)	1 (7%)	12 (86%)
Presentations at the level of participants Understanding	0	5 (36%)	9 (64%)
Level of interaction	0	7 (50%)	7 (50%)
Acquired new knowledge	3 (21%)	7 (50%)	4 (29%)
Time Management	4 (29%)	7 (50%)	3 (21%)
Queries responded	0	8 (57%)	6 (43%)
Organization of activity	1 (7%)	6 (43%)	7 (50%)
Course material was adequate	3 (21%)	6 (43%)	5 (36%)
Overall Assessment of the activity	0	5 (36%)	9 (64%)

Table-2: Comparison of students' mean scores in pre-test and post-test used in the peer learning method in undergraduate medical students.

	N	Min	Max	Mean	Pair t-test	p value
Pre-test	14	1	14	9.812±4.3	2.131	0.0002
Post-test	14	9	16	14.687±2.05		

N: number of students participated
P value is significant <0.05.

obtained via Kahoot with significant improvement in understanding of the concepts. A strong positive association was observed between the scores obtained in pre and post-test ($r = 0.627$ $p = 0.009$).

vi. In reply to open ended questions, the key points regarding experiences of PLs after the workshop were the following:

- ◆ "Application of PAL helped in better understanding and consolidation of learning concepts."
- ◆ "It allowed us to have social interactions with other people."
- ◆ "It is a very different learning experience, which allowed us to learn and clarify the concepts via the process of teaching."
- ◆ "PAL learning helped in development of interpersonal professional teaching, communication and leadership skills."
- ◆ "PAL sessions were informative and engaged the participants."
- ◆ "Learn, transfer the knowledge and create new ways to teach, are the three key notes of PAL."
- ◆ "Kahoot questions were very well organized."
- ◆ "Difficulty level of the topics should be increased."
- ◆ "PAL should be incorporated in all modules, valuable experience confident and exciting."

Conclusion

The learning approach enhanced the confidence and encouraged them to take an effective part in discussion and its application in the upcoming module. Thus, PAL workshop was successful in giving an insight about PAL as well as recruitment and training of PLs.

Disclaimer: The authors declare that they have not conflict of interest.

Conflict of Interest: None to declare.

Funding Disclosure: The project was funded by AKU Scholarship of Teaching and Learning (SoTL).

Reference

1. Rehman R, Razi MS, Syed S, Sultan T. Impact of alterations in teaching methodologies on learning capabilities. *J Pak Med Assoc* 2011; 61: 982-5.
2. Rehman R, Khan AN, Kamran A. Role of small group interactive sessions in two different curriculums based medical colleges. *J Pak Med Assoc* 2012; 62: 920-3.
3. Stone R, Cooper S, Cant R. The value of peer learning in undergraduate nursing education: a systematic review. *ISRN Nurs* 2013; 2013: 930901.
4. Olausson A, Reddy P, Irvine S, Williams B. Peer-assisted learning: time for nomenclature clarification. *Med Educ Online* 2016; 21: 10.
5. Sarwar S, Tarique S. Peer-Assisted Learning: Who Should Be the Tutor, Fellow Student or Senior Resident? *J Coll Physicians Surg Pak* 2016; 26: 573-6.
6. Goldsmith M, Stewart L, Ferguson L. Peer learning partnership: an innovative strategy to enhance skill acquisition in nursing students. *Nurse Educ Today* 2006; 26: 123-30.
7. Owens LD, Walden DJ. Peer instruction in the learning laboratory: a strategy to decrease student anxiety. *J Nurs Educ* 2001; 40: 375-7.
8. Blowers S, Ramsey P, Merriman C, Grooms J. Patterns of peer tutoring in nursing. *J Nurs Educ* 2003; 42: 204-11.