

---

# INTERNATIONAL JOURNAL OF CURRENT RESEARCH IN BIOLOGY AND MEDICINE

ISSN: 2455-944X

[www.darshanpublishers.com](http://www.darshanpublishers.com)Volume 4, Issue 5 - 2019

---

## Original Research Article

DOI: <http://dx.doi.org/10.22192/ijcrbm.2019.04.05.003>

## Impact of small group interactive sessions on students learning of Anatomy

Nazish Waheed<sup>1</sup>, Qazi Waheed<sup>2</sup>, Yasmeen Bibi<sup>3</sup>, Hina Siddiqi<sup>4</sup>, Bilqis Hassan<sup>5</sup>, Iqbal Wahid<sup>6</sup>

<sup>1</sup>Assistant Professor, Anatomy Department, North West School of Medicine, Peshawar

<sup>2</sup>Assistant Professor, Anatomy Department, Rehman Medical College, Peshawar

<sup>3</sup>Associate Professor, Physiology Department, Women medical College, Abbottabad

<sup>4</sup>Professor Anatomy, Department Pak International Medical College, Peshawar

<sup>5</sup>Lecturer, Medical Education Department, North West School of Medicine, Peshawar

<sup>6</sup>Assistant Professor, Community Medicine Department, North West School of Medicine, Peshawar

---

### Abstract

**Introduction:** Small group teaching is a medium of education in many colleges and has always been found to promote learning and improvement in communication skills of students. **Objective:** The aim of my study is to evaluate the impact of small group interactive sessions on students learning of anatomy. **Methodology:** A quantitative survey was carried out from October 2016 to February 2017 in Department of Anatomy Pak International Medical College. The second year students were engaged in small group interactive activities like case based learning and role play. For case based learning the cases were displayed a day earlier. The next day the students were divided into groups of 10 and were encouraged to discuss the displayed case in dissection class. In case of role play the scenario was presented to them in class and they were given time to discuss in groups and come up with a group presentation by members of the group.

A questionnaire comprising of 5 questions scored by Likert scale was distributed to 100 students of second year in February 2015 to assess the impact of these interactive activities. **Results:** The result of the study showed a positive impact. 82% of the students found that small group discussion had increased their interest in class material. 82% of the students said that it had helped them to actively participate and work in groups while 77% found it useful in increasing their critical reasoning abilities. 71% of the students reported that this learning strategy helped them relate anatomy to other basic medical subjects. **Conclusion:** Small group interactive sessions made the subject more interesting and encouraged active learning, group work and critical reasoning skills. This can be very beneficial to them in their clinical years where they will have to work in teams. If the faculty plans these activities properly it can help in integrating different subjects and thus making studies more meaningful for the learners.

**Keywords:** Small group interactive session, role play, critical reasoning

---

### Introduction

Anatomy is one of the most essential medical science disciplines in the undergraduate curriculum and forms the basis for the training of future doctors. Anatomy is not only crucial for surgeons but also essential for anyone who performs an invasive procedure on a

patient; it is extremely fundamental for radiological imaging; and even for a simple physical examination of a patient. Thus all branches of medicine require anatomy. <sup>1</sup>It is therefore essential to teach anatomy in an effective way with clinical correlation and interactive activities. Over the last four decades, small-group teaching and learning has achieved an admirable

position in medical education and is well liked as a means of encouraging students and enhances the process of deep learning. Small group teaching is a medium of education in many colleges and has always been found to promote learning and improvement in communication skills of students.<sup>2,3</sup>The students from different cultural back grounds interact with each other thus building better skills and aptitude to solve clinical problems together. It also gives confidence to students and help in social development. Small group discussion decreases the fear of students to teachers and creates a very friendly learning environment.<sup>4</sup>

The study was thus conducted to observe the effect of students in small group interactive sessions with clinical orientation in a conventional teaching system where there is no vertical or horizontal integration is in practice as yet.

**Methodology**

A quantitative survey was carried out from October 2016 to February 2017 in Department of Anatomy Pak International Medical College. The second year students were engaged in small group interactive activities like case based learning and role-play. For case based learning the cases were displayed a day earlier. The next day the students were divided into groups of 10 and were encouraged to discuss the

displayed case in dissection class. In case of role-play the scenario was presented to them in class and they were given time to discuss in groups and come up with a group presentation by members of the group.

A questionnaire comprising of 5 questions scored by Likert scale was distributed to 100 students of second year in February 2015 to assess the impact of these interactive activities. The questions were that has small group discussion increased their interest in class material, has it helped them to participate actively in learning process, has it helped them to work in groups and increased their critical reasoning skills and finally has the discussion helped them to relate anatomy to other basic medical subjects.

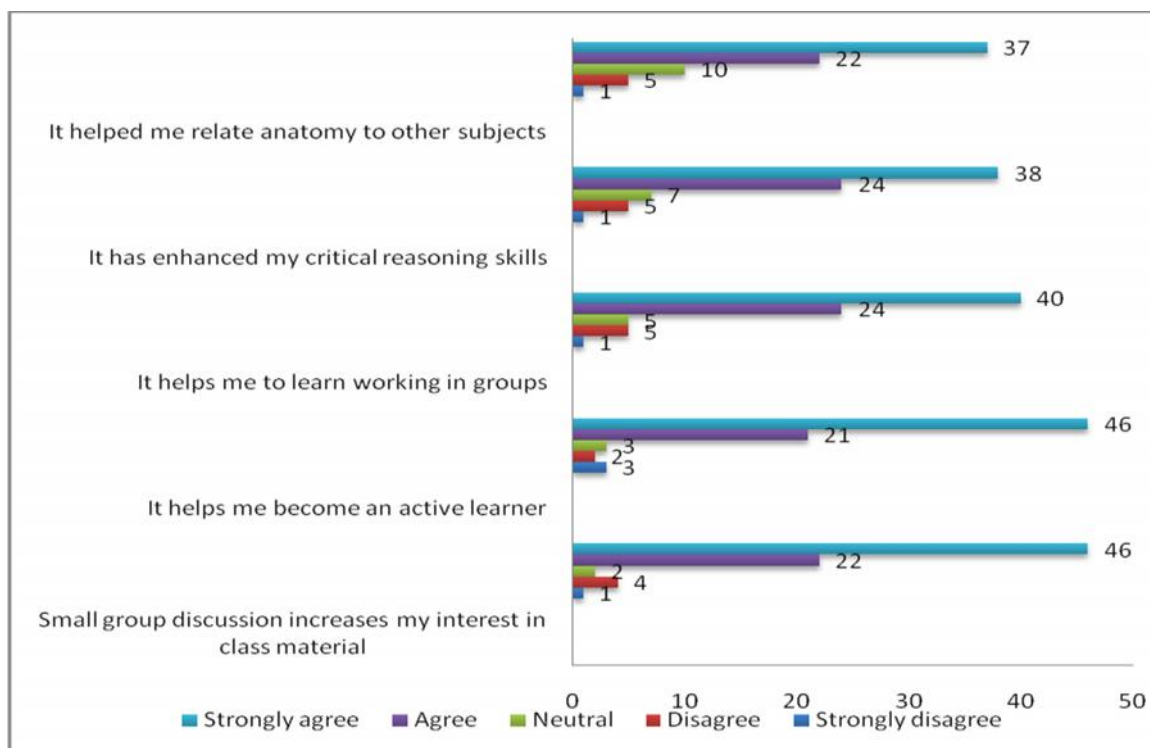
**Results**

Data analysis was done using MS Excel. The responses were graded finally as

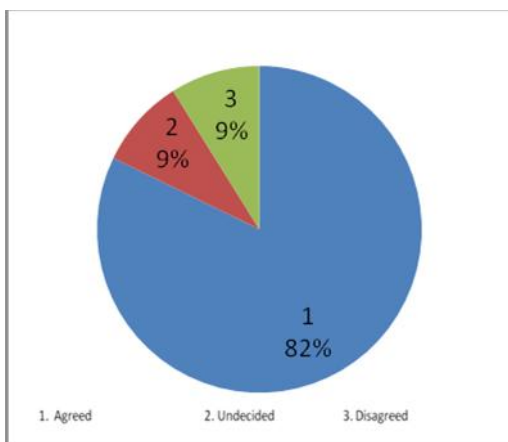
- 1. Agreed.
- 2. Undecided
- 3. Disagreed

The result showed a very positive impact of interactive sessions on different aspects of learning

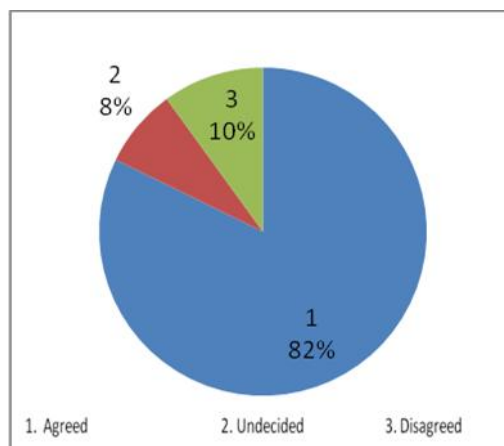
Table 1: Students response on use of small group interactive sessions for Anatomy



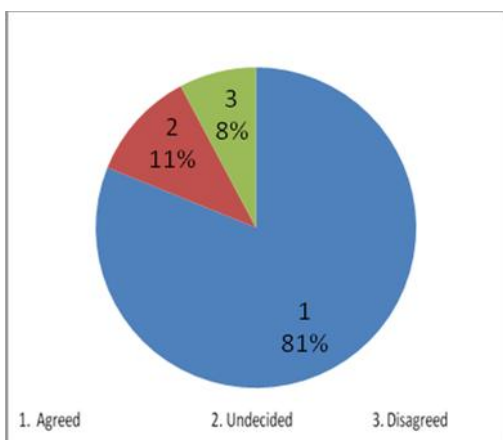
Graph 1: interest in subject material



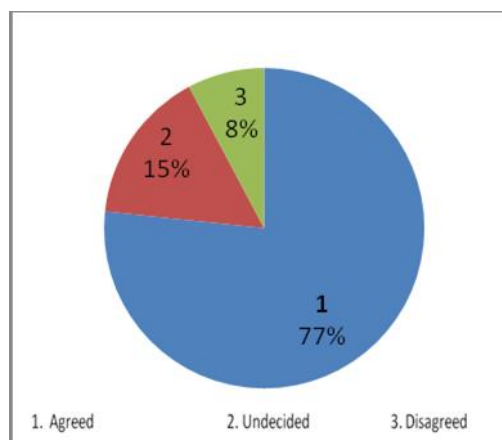
Graph 2: Active participation in learning



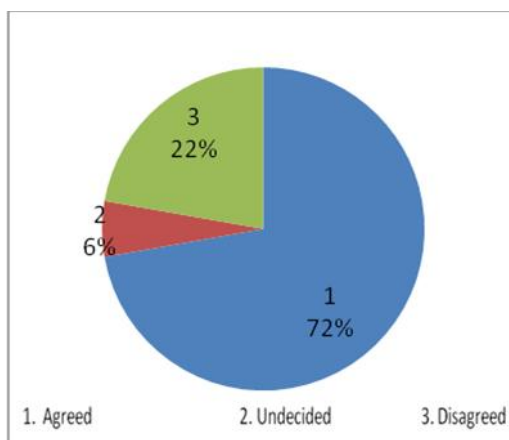
Graph 3: Help working in groups



Graph 4: Improved critical reasoning skills



Graph 5: Relation of anatomy to other subjects



## Discussion

Small group interactive teaching has benefit of development of discussion skills and thinking, exploration of attitudes and the ability of sharing and reflecting upon experiences. The responses of students regarding small group sessions were very encouraging. 82% of students considered interaction in small group sessions as very helpful for working together as team. This was in relevance to the previous studies where an improvement was observed in students when it came to working in teams<sup>4,5</sup> Anatomy is the basis of all medical subjects and an increase interest in subject material can be very beneficial for understanding and long term retention the use of small group clinically oriented interactive session improved students learning of this difficult subject as was obvious by a very positive response of students where 82% students said that the sessions have improved their understanding of subject with an active participation in learning this is in accordance with earlier studies done on teaching anatomy where most of the students were in favour of interactive sessions as is evident in Graph 2.<sup>6,7</sup> It was also observed that small group teaching with a clinical orientation improved the critical reasoning skills of the students as it is obvious by positive response of 77% of students who agreed to an improvement in the critical reasoning skills as seen in Graph 4 this result is similar to a study done to observe the effects of case based learning on students critical reasoning skills<sup>8</sup> 82% of the students were of the view that participating in small group clinical sessions has made them better learners as they were now actively participating in acquiring knowledge and this is one of the benefit of small group interactive session that is observed by many other clinical teachers as well in different studies.<sup>9,10</sup> when asked about the importance of small group clinical sessions in relating anatomy to other subjects it was observed that 72% students agreed that it has increased the relevance of anatomy to other subjects which is comparatively a less percentage of positive response by students as compared to other questions, this may be due to the fact that since students are studying in a conventional teaching system so creating a relevance of anatomy to other subjects needed a more integrated approach both intra departmentally and inter departmentally<sup>11</sup>

## Conclusion

Using small group interactive sessions made the subject more interesting and encouraged active learning, group work and critical reasoning skills. This can be very beneficial to them in their clinical years where they will have to work in teams.

If Small group sessions are planned properly and subject material is well integrated with other basic subjects it can contribute significantly to quality of learning and making studies more meaningful for the learners.

## References

1. Sawant SP, Rizvi S. Small Group Teaching In Anatomy. *ijrrpas*. 2015;5(1):1189–92.
2. Edmunds S, Brown G. Effective small group learning: AMEE Guide No. 48. *Med Teach*. Taylor & Francis; 2010;32(9):715–26.
3. Järvelä S, Kirschner PA, Panadero E, Malmberg J, Phielix C, Jaspers J, et al. Enhancing socially shared regulation in collaborative learning groups: designing for CSCL regulation tools. *Educ Technol Res Dev*. Springer; 2015;63(1):125–42.
4. Rehman R, Khan AN, Kamran A. Role of small group interactive sessions in two different curriculums based medical colleges. *JPMA*. 2012;62(920).
5. Annamalai N, Manivel R, Palanisamy R. Small group discussion: Students perspectives. *Int J Appl Basic Med Res*. Wolters Kluwer--Medknow Publications; 2015;5(Suppl 1):S18.
6. Turney BW. Anatomy in a modern medical curriculum. *Ann R Coll Surg Engl*. The Royal College of Surgeons of England; 2007;89(2):104–7.
7. Moxham BJ, Moxham SA. The relationships between attitudes, course aims and teaching methods for the teaching of gross anatomy in the medical curriculum. *Eur J Anat. SOC. ANAT. ESPANOLA*; 2007;11:19.
8. Abraham RR, Upadhy S, Torke S, Ramnarayan K. Clinically oriented physiology teaching: strategy for developing critical-thinking skills in undergraduate medical students. *Adv Physiol Educ. Am Physiological Soc*; 2004;28(3):102–4.

9. Gillies RM. Teachers' and students' verbal behaviours during cooperative learning. In: The teacher's role in implementing cooperative learning in the classroom. Springer; 2008. p. 238–57.
10. Chougule M, Patil P. Role of small group discussion in comparison to didactic lecture in improving self directed learning among first year medical students. Indian J Basic Appl Med Res. 2015;1(5):501–5.
11. Ganguly PK. Teaching and Learning of Anatomy in the 21st Century: Direction and the Strategies. Open Med Educ J. 2010;3(1).

Access this Article in Online	
	Website: <a href="http://www.darshanpublishers.com">www.darshanpublishers.com</a>
	Subject: <a href="#">Medical Sciences</a>
Quick Response Code	

How to cite this article:

Nazish Waheed, Qazi Waheed, Yasmeen Bibi, Hina Siddiqi, Bilqis Hassan, Iqbal Wahid. (2019). Impact of small group interactive sessions on students learning of Anatomy. Int. J. Curr. Res. Biol. Med. 4(5): 12-16.  
DOI: <http://dx.doi.org/10.22192/ijrbm.2019.04.05.003>