

See discussions, stats, and author profiles for this publication at: <https://www.researchgate.net/publication/356195191>

Small group activities as a tool to facilitate student-centered active learning in an online platform: Student perceptions and peer observations

Conference Paper · July 2021

CITATIONS

0

READ

1

1 author:



[Neranjala Sumathipala](#)

University of Colombo

10 PUBLICATIONS 0 CITATIONS

[SEE PROFILE](#)

Some of the authors of this publication are also working on these related projects:



Teaching [View project](#)



Health & Wellbeing [View project](#)

Small group activities as a tool to facilitate student-centered active learning in an online platform: Student perceptions and peer observations

Neranjala Sumathipala
Department of Demography, University of Colombo
neranjalk73@gmail.com

Abstract

Small Group Activities (SGA) are useful as a teaching strategy to facilitate student – centered learning in an online platform, specially when students have not shown active participation in the lesson. This study examines how the use of SGA can support student- centered learning in an online platform to promote active learning process of students in such a class. This teaching and learning change was applied for the 38 students who followed second-year course unit “DMG 2223 – Demographic Analysis” in their second semester, following Gibbs and Habeshaw (1989), where group learning is recommended to improve learning. The discussion class was divided into several groups by using zoom breakout rooms and given the specific topic related to the lesson. The students were guided to find information by using internet and present as small group presentations. In a student-centered discussion, the students themselves formulate and direct the discussion. One student serves as the facilitator of the discussion, but the discussion flows from student to student. The outcomes of the online SGA were analyzed by using student-feedback and peer online-class observations. At the end of presentation, 80%of students had actively participated in the given student-centered activities and 75% agreed to SGA change as a positive improvement. 60% stated they improved their knowledge of e-learning tool use. 10% faced technical and network issues during the activity. By incorporating peer feedback, this can be an effective teaching method to develop not only student’s knowledge but also their intra- personal and inter- personal (‘soft’) skills. The findings suggest that Small Group Activities on an online platform can be recommended as a tool to improve student-centered and self-regulated learning as well as their skill in use of e-learning tools. This helps to improve active involvement of students.

Background

In the current situation of state university education in Sri Lanka, all academic teaching done through online education due to the COVID -19 pandemic. In student centered active learning process, student becomes the central person so that more self-responsibility skills, including for their own learning, can be developed. Teacher is then only the resource person who guides the students. According to Gibbs and Habeshaw (1989), learning as a group is the best way to learn. With the use of techniques in the concept, small group presentations benefit the students to improve their self-esteem and give them confidence for doing their future work (*Ibid*). Further, Gibbs and Habeshaw have mentioned that small groups when adequately experienced, can operate effectively without a teacher being present since many of the roles which a good facilitator performs in a group can be performed adequately by students if they are clearly briefed (Gibbs & Habeshaw, 1989). The main objective of small group learning is active involvement of the students in the entire learning process so as to achieve an improved academic and skill related goals by the end of the lesson.

The literature reveals the presence of sufficient evidence to suggest that teaching and learning in a small group is an excellent method for developing communication skill, critical thinking, team work ability, decision making capacity, and the retention of knowledge (Dennick & Exley,1998 Meo,2013). Student-centered learning describes ways of thinking about learning and teaching that emphasise student responsibility for such activities as planning learning, interacting with teachers and other students, researching, and assessing learning (Cannon, 2000). Small-group teaching is a distinct mode of teaching and is closely linked to active learning (University College London,2019) The implications of this small group method for teachers are that they place greater importance on what their learners are doing, and why they are doing it, rather than on their own actions and performances as a teacher (Biggs,1999). Through studies and discussions regarding online tools and learning have been increasing, the short time period before the compelled start of virtual education did not permit suitable staff training to be put into place for its effective delivery. According to Singhal, combination of Zoom-based lectures with actively facilitated Zoom breakout room assignments is an effective active learning strategy (Singhal,2020).

As presently practiced, pre-preparation activities that are assigned to be done at home are not done by each and every student. Most students miss doing these activities and so, come to the discussion classes without the necessary prior knowledge. Self-learning is a good practice for every student to improve their knowledge. Once the students enter the second year of their undergraduate life, the teaching is more focused on student-directed learning. As a method of directing them towards self-learning, it is important to provide more self-activities for them. If students - centered learning cannot be achieved individually by students in the university system by them not doing their assigned work. It is better to use collaborative learning methods to improve students-centered learning process and problem - centered learning as well.

Methodology

This study is situated in a qualitative and quantitative mixed research design. The data were collected from 38 second -year students who had followed 'Demographic Analysis' in their second semester course unit. This small group activity was designed by following Gibbs and Habeshaw (1989). Although the COVID - 19 outbreak compelled universities to switch to online lesson delivery, on the online platform students do not participated actively in the discussion classes, unlike in face-to-face classroom discussion classes. Due to this and making online class-room some a non-threatening place for students would make them from cooperative learning, zoom video teleconferencing platform was used to divide students into small groups. As facilitator, students were guided by giving technical guidelines about features of the zoom breakout rooms. After that, students were given the specific topic related to the lesson.

Demographic Analysis is a technical subject that is compulsory for students who are doing Demography as their special subject. Within this area and using Zoom Breakout rooms, it was possible to give them a related problem-centred topic to discuss with their assigned group members. The students were guided to find information by using internet and present findings as small group presentations. Students shared their screen with their group members and they were able to continue their discussion successfully. In a student-centered discussion,

the students themselves formulate and direct the discussion. One student served as facilitator of the discussion, with the discussion flowing from student to student. For obtaining student's feedback, a small questionnaire was given to students at the end of the particular activity. For peer feedback, peers were invited to join zoom meeting during student' presentations.

Results

Table 1, gives an analysis of student feedback. It shows that, more than 85 % of students were satisfied with small group activity via zoom platform. The table also shows that nearly 6 % of students were dissatisfied with this small group activity. When considering reasons for dissatisfaction the main reason was network coverage and stability issue. Due to the network failures and bad weather conditions, students had faced difficulties when they log in to the zoom meeting. Students were unable to join discussion class continuously. Taken as a whole, the overall feedback can be seen as positive for the implemented small group activity.

Table 1. Student feedback results

Satisfaction Level	Frequency	Percentage (%)
Strongly Satisfied	23	60
Satisfied	10	26
Neither Satisfied nor Dissatisfied	03	8
Dissatisfied	01	3
Most Dissatisfied	01	3
Total	38	100

Student perceptions based on feedback (Figure 1) revealed that the planned small group activities helped students to participate actively in the discussions. In discussions, approximately, 80 % of students were observed participating actively. In undergraduate learning process, students centered learning process is very important to improve their academic knowledge and other skills. But in an online platform it is difficult to observe student'-s active participation in this learning process. In such a situation, this zoom breakout room feature helps facilitator to observe student'-s involvement in the lesson. 75 % students had identified small group activities as a positive improvement. Also, a large group of students (70 %) said that they are able to improve their subject knowledge through this activity. Basically, this small group activity was coupled as problem-centred learning activity. Hence, 65 % of students had stated that they felt able to improve problem solving skills from this small group activity. 40 % of students had recognized that they need to improve their e-learning knowledge. Out of total students, 60 % students had sufficient knowledge regarding the e-learning methods and tools. The other important point is a considerable group of students (65 %) responded that they felt to have improved their collaborative learning skills.

In this online education most students had faced difficulties with individual learning due to them missing their colleagues and group learning. As a result of that, it should be noted that this implementation gives many positive feedback in current COVID -19 pandemic situation.

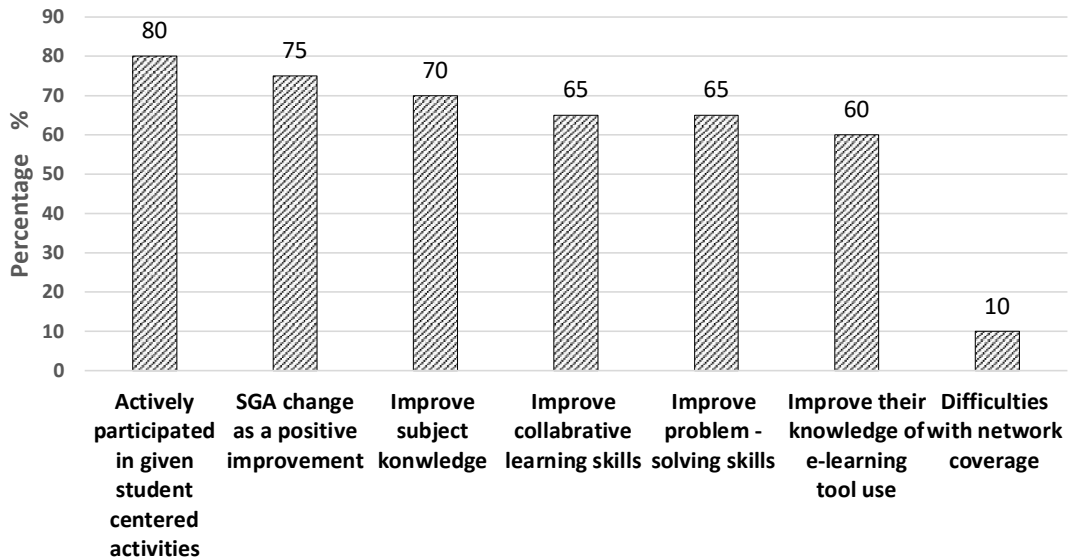


Figure 1. Student perceptions based on feedback

Discussion and Conclusion

The findings suggest that small group activities is a tool to facilitate student-centred active learning in an online platform. With this approach, responsibility for learning is placed upon the students and they gain more knowledge through collaborative learning. When tutorial classes use small group activities in this way to engage students in planned TLAs in class, students develop better learning and their skills of learning. Also, such small group activities help students to interact with their colleagues and share knowledge with them. Most teachers have considered online platform not as a good tool for teaching students. But the problem is that most teachers do not use online platform in ways that make it as both a useful and a comfortable place to students. In COVID -19 outbreak teachers have to use this online platform in such ways. Hence it is better to use these kinds of tools to not only improve student's knowledge and skills but also to make students willing to learn.

Incorporating peer feedback, can be an effective teaching method to develop not only student's knowledge but also their soft skills. Also, they suggested that this was one successful method for improve student's cooperative learning skills on an online platform. Likewise, they pointed out that, those who are not having proper internet connection and other equipment had been disadvantaged by these kinds of online activities. They noted recordings can be used to minimize such kind of situations. Hence it is suggested that it is better to make recording during students presentations in the zoom meeting and share recording with students. Then students can use the recording as a learning material.

Further, peer feedback had emphasized that improvement of e-learning skills in a positive manner.

The responses of the participants displayed a wide range of positive perspectives toward the student- centered learning that was made possible by using small group activities in an online platform. Overall, the study revealed that while it was beneficial in specific ways for many students, the small group activity method was motivating to effectively impact most participants of this tutorial class. As a summary, findings suggest that small group activities on an online platform can be recommended as a tool to improve student-centered and self-regulated learning as well as their skill in use of e-learning tools. This helps to improve student's active involvement in the lesson and enhance students collaborative learning.

References

- Biggs, J. B. (1999). Teaching for quality learning at university. Buckingham, OUP
- Cannon, R. (2000). Guide to support the implementation of the Learning and Teaching Plan Year 2000. ACUE, The University of Adelaide.
- Dennick, R., & Exley, K. (1998). Teaching and learning in groups and teams. *Biochemical Education*, 26(2), 111–115. [https://doi.org/10.1016/s0307-4412\(98\)00028-4](https://doi.org/10.1016/s0307-4412(98)00028-4)
- Gibbs G & Habeshaw T. (1989). Preparing to Teach. Technical and Educational Services, Bristol, UK.
- Meo, S. A. (2013). Basic steps in establishing effective small group teaching sessions in medical schools. *Pakistan Journal of Medical Sciences*, 29(4), 1071–1076. <https://doi.org/10.12669/pjms.294.3609>
- Singhal, M. K. (2020). Facilitating Virtual Medicinal Chemistry Active Learning Assignments Using Advanced Zoom Features during COVID-19 Campus Closure. *Journal of Chemical Education*, 97(9), 2711–2714. <https://doi.org/10.1021/acs.jchemed.0c00675>
- University College London (2019). Small group teaching. Teaching & Learning. <https://www.ucl.ac.uk/teaching-learning/publications/2019/aug/small-group-teaching>