

The Use of Microsoft Teams Breakout Rooms to Encourage Collaborative Learning in Synchronous Online Classroom

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Introduction

Maintaining student engagement and providing chances for collaborative learning are two issues that online courses can pose for both students and instructors. Utilising breakout rooms, distinct virtual spaces where small groups of students can collaborate, is one method to overcome these difficulties.

Breakout rooms are one of the features available in Teams meetings. It is used to separate participants of a meeting into sub-group meetings. As noted, open dialogue and a fruitful exchange of views can sometimes be challenging in the main meeting room. As such, the use of breakout rooms enables students to gather in small groups for active discussion and brainstorming sessions during synchronous online classes.

Breakout rooms encourage students' active engagement and are beneficial in helping students to summarise and apply lecture materials making the class more interesting with the interaction among the students. Plus, they also will be able to listen to other opinions from their group members. In addition, since Office 365 and Teams are already connected, users can easily exchange files, search for files, collaborate, and back up their completed work across all Office 365 programmes, including Word, Excel, PowerPoint, Outlook, OneDrive, and SharePoint.

Previous research has proven the use of breakout rooms is deemed helpful from an instructor and a student perspective. As stated by Chandler (2016), the breakout room was where the students said they felt most at ease conversing. Additionally, breakout rooms provided instructors a chance to work with students individually when they were taking a break from presenting to a large audience in the main meeting. Another research done by Naik and Govindu (2022) specified that a smart approach to breaking up the boredom of viewing a screen or paying attention to an instructor is to use breakout rooms. In a virtual setting, breakout rooms allow students the chance to develop stronger relationships with one another. Similar to this, a study by Savvidou and Katarzyna (2022) found that breakout rooms gave some participants a chance to communicate with one another and build their peer networks while developing their content understanding.

In light of the discussion, the context of this study focuses on group work activities conducted in a virtual synchronous classroom of UHL2422 English for Technical Communication, Semester 2 2021/2022. The research objective of this study is to investigate the effectiveness of breakout rooms in Microsoft Teams in facilitating collaborative learning in online platforms. This study is guided by the following research question:

How do breakout rooms in Microsoft Teams facilitate collaborative learning in online platforms?

Literature Review

Use of Breakout Rooms in Online Learning

Numerous studies have shown the advantages of employing breakout rooms in online learning. According to Chandler (2016), breakout rooms promote collaborative learning and interactivity between students. The instructor can set up several breakout rooms where only those in attendance can participate in the discussions.

In addition, Saltz and Heckman (2020) examined the use of structured pair activities, in which students were given scripted role assignments that directed them to act as the "driver" or "observer" as they worked in pairs on issues. Predictably, it was discovered that students working on structured pair activities in breakout rooms performed better than those working on unstructured activities, indicating that students prefer clear directions for practical activities in breakout rooms.

Furthermore, a study by Naik & Govindu (2022) illustrates the advantages of breakout rooms in various contexts, such as students can interact freely, work together, and learn in breakout rooms. These sessions enhance peer interaction, learning, and error-checking. However, it should be noted that the instructor's presence is crucial as a way to monitor the students' participation, task explanation and to provide guidance to help the students feel more at ease in using breakout rooms (Savvidou & Katarzyna, 2022).

Collaborative Learning

According to Falcione et al. (2019), collaborative learning is defined as "students work with each other towards a shared goal, weaving together their independently prepared work. This results in a product or a learning

experience that is more than the summation of individual contributions". It can be concluded that learners are not passive consumers of information. They actively participated in their process of acquiring knowledge by taking part in discussions, doing research, and exchanging ideas with their peers.

Furthermore, learning activities were designed to encourage interaction between student-student, student-teacher and student-content in a collaborative online learning environment. This is important in collaborative learning since a student's ability to construct knowledge depends on one another's contributions to the discussion, the learning process forges bonds between and among students (Brindley et al., 2009).

Methodology

Research Design

A descriptive qualitative approach was employed in this study. Students' learning experiences and engagement were observed via written conversation in the breakout rooms for task completion.

Research Samples

Purposive sampling was used in this study. 28 second year degree students taking UHL2422 English for Technical Communication Semester 2 2021/2022 were involved in this study. These students were engineering majors at Universiti Malaysia Pahang.

Research Instrument

In this study, the research instrument focused on the content analysis derived from the students' responses in Microsoft Teams i.e. written discussion in the breakout rooms. Content analysis is seen as appropriate as the analysis process involve "description and more interpretation, both inductive and deductive, danger of missing context, possibility of finding a theme based on the frequency of its occurrence, division of manifest and latent

contents, non-linear analysis process” (Vaismoradi et al., 2013).

Data Collection Procedures

In this study, the data collection was done following these steps:

Students were assigned to separate rooms consisting of 5 students per room. They were required to complete the task assigned on the point of comparison by completing the template provided. During the discussion session in the breakout room, students were allowed to communicate freely in a language of their preference, share the screen, discuss ideas, and annotate shared screens to complete the template provided. They can provide necessary feedback on their peer's work.

During each breakout session, the instructor joined each of the different breakout rooms, observed the student in each breakout room, and documented those observations. Each room was observed for 3–5 minutes at a time, and each room was visited 2–3 times during the class session. Instructors were to join each room to see each room's progress and provide feedback where necessary. The aim was to observe the discussion among the group members and the utilisation of the breakout room in completing the task assigned.

Data Analysis Procedure

To analyse the data, manual data analysis was conducted to answer the research question. To find potential meanings of the raw data, all written discussions in the breakout rooms were read and studied repetitively during analysis. Later on, pertinent themes were created. All data were analysed using thematic analysis. Thematic analysis as an independent qualitative descriptive approach is mainly described as “a method for identifying, analysing and reporting patterns (themes) within data” (Braun & Clarke, 2006 as cited in Vaismoradi et al., 2013).

Three broad themes were derived based on the analysed data:

- Theme 1: Group interaction
- Theme 2: Peer-to-peer support
- Theme 3: Collaborative learning

Results and Analysis

RQ: How do breakout rooms in Microsoft Teams facilitate collaborative learning in online platforms?

Data from the written discussion in the breakout rooms will further elaborate students' responses in answering the research question. Three broad themes were identified based on the analysed data; i) group interaction, ii) peer-to-peer support and (iii) collaborative learning.

Group Interaction

Students appeared to be more at ease and ready to interact with one another during and after the time spent in breakout rooms. They were working together by asking for clarification of the task instructions and also seen giving explanations and information needed for task completion. Their responses included:

S2: “... so our group is screen recording software?”

S1: “... I thought air purifier”

S3: “... yeah I think ours is air purifier also”

S4: “... okay then how many models we should put?”

S1: “... I think 2 only?”

S3: “... 2 models and then we compare with 4 aspects”

S2: “... which model to choose?”

S5: “... We compare between storm and lombok 3?”

This finding echoed Savvidou and Katarzyna (2022), indicating that more than half of all participants in their study reported making friends or getting to know their classmates in breakout rooms, which suggests that breakout rooms have the potential to foster a feeling of community among students. Moreover, their study also revealed that through peer-to-peer engagement, breakout rooms gave some participants a chance to increase their knowledge of the subject matter and build their personal identity.

Furthermore, according to Saltz and Heckman (2020), research also indicated that structured and specific activities lead to efficient interactions in breakout rooms. In addition, Read et al. (2022) also suggested similar results whereby the respondents agree that using breakout rooms require them to be constantly engaged with the tasks.

Peer-to-peer Support

Having breakout rooms allows students to support one another. For distance learning students, who rarely get the chance to interact with their peers in person, this is very helpful. Students were helping each other, especially those with slow internet connection and without proper gadgets for online learning. Their responses included:

S3: "... nice. who are going to share screen?"

S4: "... I can't able to share since I'm using phone. Sorry."

S5: "... Actually I'm using phone too, sorry."

S1: "... guess i'll share then."

S2: "... Hi there, for now im using phone so someone please share your screen. Thank you."

S1: "... Okay."

Similarly, it was reported in (Savvidou & Katarzyna, 2022), several problems were encountered with students' personal gadgets, their unstable internet connections, and the interface's usability.

Collaborative Learning

Students were seen using online collaborative tools such as Google Docs to synchronously annotate the template given. Since students' ability to build knowledge depends on another's contributions to the discussion, this is significant in collaborative learning. Their responses included:

S3: "... we can just use the Google Doc to write the document together."

S1: "... S2 you can go fill in your part from the link given just now."

This is also supported by Saltz and Heckman (2020), stating that students mentioned their learning, coordination and collaboration improved through structured activities using breakout rooms. Furthermore, findings from Naik and Govindu (2022) also supported the collaborative element offered by breakout rooms whereby they allow students the possibility to develop closer relationships with one another in a virtual setting. They become deeply involved in group activities and generate conversation.

In addition, this is also supported by Brindley et al. (2009) who were against emphasising grades above teaching students' collaborative skills, such as how to deal with group members who are unable to fully participate in the process. Both high achievers and poor achievers can express their thoughts and ideas on their experiences of their learning in the breakout rooms if a structured learning environment were provided.

Conclusion

Summary of Findings

This study has identified the benefits of using breakout rooms to enable small group work in terms of facilitating group interaction, peer-to-peer support and collaborative learning. The tasks assigned were successfully completed by the group members and later presented in the whole class session after the breakout rooms session ended for small group discussion. These findings suggest that students' have positive attitudes towards online learning and the use of breakout rooms in conducting group work activities synchronously to facilitate collaborative learning and students' interaction as a substitute to the usual face-to-face group work activities although not exactly the same, but there is also a place for the similar activity being undertaken in an online format (Read et al., 2022).

Recommendations for Further Study

There is a ton of room for research in this area, which might look at the benefits and drawbacks of collaborative activities conducted virtually compared to face-to-face sessions. Additionally, it would be fascinating to examine the conversation that occurs in breakout rooms and how it differs from that which takes place during face-to-face sessions. Such research may provide insight into the most effective ways to plan and carry out lessons that will enhance instruction and ensure that students acquire digital transferable skills that will be useful to them in future employment.

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