

Exploring University Students' Experiences and Perceptions of Breakout Rooms in Online Classes

Explorer les expériences et les perceptions des personnes étudiantes universitaires à l'égard des salles de petits groupes dans les cours en ligne

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Abstract

This research focuses on the use of breakout rooms in online classes at a private university in Saskatchewan, Canada. It aims to explore factors that contribute to successful collaborative graduate student learning experiences and identify challenges students face during peer-to-peer interactions in breakout rooms. A qualitative research approach was employed and data were collected through a qualitative survey and focus group discussion. The survey was distributed to graduate students in three unique online courses within the college of education at the university. The findings highlight a variety of breakout room activities, ranging from open-ended discussions to problem-solving exercises facilitated by collaborative tools such as shared documents and Padlet. The students expressed a preference for activities that were simpler and more accessible, which fostered teamwork and facilitated the exchange of ideas among group members. The challenges that students mentioned dealt with the non-availability of written instructions for activities, unequal participation or dominance by group members, and potential conflicts arising from differing opinions. Recommendations include further exploration of innovative tools to enhance virtual collaboration, comparative studies across different academic levels, and investigations into the long-term impacts of breakout room usage on student learning outcomes.

Keywords: breakout room, collaborative learning, graduate students, online environment

Résumé

Cette recherche porte sur l'utilisation des salles de petits groupes dans les cours en ligne d'une université privée de la Saskatchewan, au Canada. Elle vise à explorer les facteurs qui contribuent à la réussite des expériences d'apprentissage collaboratif des personnes étudiantes aux cycles supérieurs et à identifier les

défis auxquels les personnes étudiantes sont confrontées lors des interactions avec leurs camarades de classe dans les salles de petits groupes. Une approche de recherche qualitative a été utilisée et les données ont été recueillies à l'aide d'une enquête qualitative et d'une discussion de groupe. L'enquête a été distribuée aux personnes étudiantes aux cycles supérieurs dans trois cours en ligne uniques dispensés au sein de la Faculté d'éducation de l'université. Les résultats mettent en évidence une variété d'activités menées dans les salles de petits groupes, allant de discussions ouvertes à des exercices de résolution de problèmes facilités par des outils collaboratifs tels que des documents partagés et Padlet. Les personnes étudiantes ont exprimé leur préférence pour des activités plus simples et plus accessibles, qui favorisaient le travail d'équipe et facilitaient l'échange d'idées entre les membres du groupe. Les défis mentionnés par les personnes étudiantes concernaient l'absence d'instructions écrites pour les activités, la participation inégale ou la domination de certains membres du groupe, et les conflits potentiels résultant de divergences d'opinions. Les recommandations incluent l'exploration plus approfondie d'outils innovants pour améliorer la collaboration virtuelle, des études comparatives entre différents niveaux académiques et des recherches sur les impacts à long terme de l'utilisation des salles de petits groupes sur les résultats d'apprentissage des personnes étudiantes.

Mots-clés : salle de petits groupes, apprentissage collaboratif, personnes étudiantes aux cycles supérieurs, environnement en ligne

Introduction

The online delivery of courses using technology has evolved significantly and continues to attract increasing attention in higher education. The pressing need for technology-supported educational practices has been evidenced by the COVID-19 pandemic that affected most educational systems around the world (Antunes & Farooq, 2022). However, the global shift to online teaching presents a range of challenges to educators in higher education (Nordmann et al., 2020). Emerging evidence from the pandemic further indicates that student engagement, attendance, and learning outcomes declined during the transition to online learning (Hollister et al., 2022).

Breakout rooms have emerged as a potential way to actively engage students and enhance their learning and connectivity in synchronous online classes. The use of breakout rooms has been shown to increase student participation and collaboration compared to classes without such groups (Wachenheim et al., 2023). The advantages of using breakout rooms in online classes include enhanced student learning, improved grades, increased retention, and improved communication and teamwork abilities.

Despite these benefits, more studies into the contextual use of breakout rooms, particularly in Canadian higher education, are needed (Wachenheim et al., 2023). This calls for research that investigates not only the use of breakout rooms in general but also students' preferences regarding specific activities or discussions in virtual environments and their perspectives on collaboration and teamwork opportunities. Additionally, there is a need to investigate preferences for optimal group size in a breakout room.

The aim of this research was to explore graduate students' experiences and perceptions of using breakout rooms in their online classes within the curriculum studies department of the college of education at a private Canadian university. The study sought to identify factors contributing to successful collaborative learning experiences and provide insights into the challenges students encounter during peer-to-peer interaction in breakout rooms.

Research Questions

To accomplish the study's purpose, the following research question guided the investigation: What are the experiences, perceptions, and challenges graduate students face when using breakout rooms at a Canadian higher education institution?

Subsidiary Questions:

1. How are breakout rooms used in online synchronous classes?
2. What are the experiences and perceptions of university students toward participating in breakout rooms in online classes?
3. What are the challenges university students face while participating in breakout rooms in online classes?

Literature Review

Social Constructivism Theory

According to the social constructivist perspective, knowledge is produced by students working together with classmates, teachers, and other students. According to Vygotsky (1978), social interaction is essential for learners in the lifelong process of development, and social learning promotes cognitive growth.

Although Vygotsky was a cognitivist, he disagreed with Piaget's views (Huang, 2021) that learning could be isolated from its social environment. He maintained that learning was the process by which students were integrated into a knowledge community and that learning was more than just the assimilation and accommodation of new information by learners (Vygotsky, 1978).

The social constructivism theory supports the creation of opportunities that enable students to collaborate with peers and teachers to construct their knowledge and understanding through interaction and collaboration. Kapur (2018) asserts that the social construction of knowledge occurs across a variety of contexts and forms, taking place in diverse educational settings where cooperative learning, group discussions, and other modes of in-person or online instruction are found. As students interact with one another, the curriculum, and their environment, they acquire the information and experience needed to lead meaningful lives (Akpan et al., 2020).

According to Akpan et al. (2020), the social constructivism theory permits interaction, collaboration, and interactive techniques for effective learning. These groupings include group discussions, student-led projects or assignments, or discussions in smaller groups. The premise behind

the approach is that students work together in groups, sharing ideas, producing solutions to problems, or simply creating new content to supplement what they currently know. All instructional exercises that students complete in the classroom can be categorised as either written, reading-based, or thought-provoking.

Additionally, social constructivism promotes the idea that engaging in educational activities is worthwhile labour. It provides students with opportunities, improves their ability to work together, and aids in their understanding of new concepts and tactics. It enables them to analyse their thought processes and identify areas in which they need to make revisions (Turner & Patrick, 2004). Zhan (2008) posits that collaborative learning activities have the potential to foster student participation and interaction as they work toward a shared academic objective. Additionally, these activities may heighten students' emotions of fulfilment and community (Alzahrani & Woollard, 2013).

Breakout Rooms in Online Learning

Since the COVID-19 pandemic, breakout rooms are increasingly used within online learning environments (Carr, 2023). Breakout rooms are a separate virtual section of the main classroom or meeting, and as per Chandler (2016), are effective in promoting student engagement and collaborative learning. Read et al. (2022) indicated that engaging in group problem-solving exercises in breakout rooms is beneficial for students since it provides them with a chance to share knowledge with each other. According to Redish et al. (1997, as cited in Saltz & Heckman, 2020), educators have begun investigating the use of gamification and online room narratives to provide a structured framework for breakout room experiences. This approach offers two advantages: it provides students with a clear, problem-based structure and enhances student participation. Similarly, in Ahmed's (2021) research, students were in favour of using breakout rooms for their online classes. The learners believed that small group activities opened the doors for them to have peer interaction. However, there have been some limitations noted in research with regard to moderating breakout rooms in that an instructor can only assist one group at a time, which can be problematic for struggling students. Therefore, instructors must ensure they adequately prepare students for activities before letting them enter the breakout room (Almazzome, 2022).

Breakout Rooms for Student Learning

Douglas (2023) evaluated the effectiveness of breakout rooms in achieving university students' learning through peer-to-peer dialogue. The results concluded that breakout rooms have the potential to facilitate successful peer-to-peer discourse and effective learning. However, the study also concluded that success is highly dependent on students' participation. To ensure that breakout rooms are productively used, educators must set clear tasks and regularly visit breakout rooms to encourage participation and provide support. Thus, establishing clear guidelines and expectations is important to create a positive and effective virtual learning environment. In addition, there are other studies in international settings that support students favouring small group discussions through breakout rooms while increasing students' confidence, social connectedness, and academic benefits (Chacon et al., 2023; Fotaris & Mastoras, 2019; Nisa et al., 2021).

On the other hand, educators must be aware that certain factors contribute to students feeling anxious and pressured to interact with peers in breakout rooms. For this, Wilkins et al., (2023) argued that collaborative learning is successful when the right individuals work together. Their research identified specific learner attributes that contributed to the achievement of purposeful interactions among students such as students' technology readiness, social identification, and intercultural communication competence. As such, creating the right groups is important in having a successful collaboration in an online environment. However, this can become challenging for an instructor especially when students are assigned randomly to a breakout room group.

Similarly, Wali and Tammam (2024) showed that breakout rooms do pose challenges to some students who lack confidence, including overseeing their own learning, following instructions, interacting with a group of unrelated individuals, and completing the given tasks collaboratively at a distance. From these studies, it can be concluded that considering learners' attributes and different challenges they face in breakout room activities is important and to pay attention to these factors when collecting and analysing data for this research.

Breakout Room Environment

A breakout room environment refers to a virtual space where small participant groups work on specific tasks, engage in focused discussions, and collaborate on activities in separate rooms within an online conferencing platform (Chandler, 2016). The design and utilisation of breakout rooms vary across different platforms and settings. A wide range of scenarios or activities can be provided to students in breakout rooms. Veldkamp et al. (2020) found that task-based activities and puzzles are favoured by students as they engage them, challenge their thinking process, and help them finish their group task.

A growing body of research highlights key factors that contribute to effective breakout room experiences in online learning. Almazmome (2022) emphasises that the design of activities and the provision of a supportive online environment are crucial, with careful consideration of task type to enhance student engagement. Building on this, Wachenheim et al. (2023) and Gimpel (2022) underscore the importance of instructor presence, noting that active guidance ensures all group members participate fully and remain focused on the task. Complementing these findings, Douglas (2023) as well as Saltz and Heckman (2020) identify specific strategies that instructors can implement to create an effective breakout room environment, including clear instructions, structured activities, inclusive group formation, time management, technical support, ongoing monitoring and feedback, and fostering a supportive atmosphere. Taken together, these studies convey that both activity design and instructor facilitation are interdependent factors: when thoughtfully combined, they create an environment that maximises student engagement, collaboration, and learning outcomes in online group sessions.

Methodology

Design

A qualitative approach was chosen in gathering data for the given research questions because qualitative design allows researchers to investigate everyday human behaviour in real context (Thomas, 2003) while encouraging the integration of innovative ideas. Moreover, the exploratory design within the qualitative paradigm was most suitable to address the research questions proposed in this study (Merriam & Tisdell, 2015). The purpose of this study was to conduct an intensive examination of the virtual learning context, specifically how breakout rooms help students build on their experiences in online classrooms at a higher education institution in Saskatchewan. The exploratory design enabled us to gain a better understanding of students' experiences and behaviour in using breakout rooms. It also provided flexibility in obtaining pertinent data necessary for the study (Merriam & Tisdell, 2015).

Participants and Context

The participants were graduate students from three online education courses at a private university in Saskatchewan. All the participants belonged to the field of education and were engaged in teaching. A purposive sampling technique was chosen in this research, as it targeted a specific group of students who had some experience with breakout rooms in their online courses (Marshall et al., 2022). All the participants had become aware of and had started using breakout rooms during the COVID-19 period. This criterion was important – the students' familiarity with breakout rooms enabled them to better express their ideas and views during the study (Punch, 2006). The online class sizes ranged from 20 to 25 students from diverse backgrounds, representing many different parts of Canada.

There were 14 survey responses and one focus group discussion, with four students participating in the discussion.

Data Collection Methods

The data were collected through a qualitative survey questionnaire and a focus group discussion. The survey questionnaire contained mostly open-ended questions to provide a broad context for understanding students' experiences within breakout rooms, as well as collecting underlying reasons and motivations to guide the researchers in the focus group discussion (see Appendix A).

The focus group discussion lasted 90 minutes and was conducted online through the Zoom platform. This discussion provided further clarification on the responses gathered from the questionnaire. The questions for the focus group discussion began with general ones and progressed to specific questions based on participant responses. The participants gave their written consent before the discussion was recorded.

Data Analysis

Analysing qualitative survey data included reviewing open-ended responses and comments for a comprehensive understanding. The focus group discussion with the students helped the researchers to

further analyse the descriptive data. As per Saldana (2013), an inductive thematic analysis took place in this research, where the recorded data were first transcribed and reviewed to eliminate errors and inconsistencies. After data cleaning and organisation, different codes were generated and categorised from the data which captured the essence of the students' perceptions. In the next phase, the different categories were merged into themes to pull the data together for further discussion and interpretation.

Results

Use of Breakout Rooms in Online Classes

In their survey responses, the students mentioned that the frequency of breakout room usage varied depending on the course, and on average there were two to three breakout room sessions in a typical online class meeting. The duration of breakout room time depended on the activity for that session, ranging from 15 to 20 minutes per activity. On average, there were three or four students in each breakout room. Some instructors briefly visited breakout rooms during activities, whereas others preferred to let students complete the tasks independently and later offered feedback in the main session. The students in the focus group discussion mentioned that they did not mind the absence of their instructor if the instructions were clear, and they knew what to do in that session. Moreover, a student in the focus group discussion said that “we can actually talk freely and more comfortably when the teacher is not monitoring our discussions. If we need any help, we can always ask for it.”

The types of breakout room activities that students engaged in were open-ended group discussions, in which students were given time at the beginning of the class to discuss or talk about any matter of their choice. This first breakout room session was followed by structured problem-solving exercises, case studies, or peer-reviewed tasks. For these sessions, the students used collaborative online tools like shared Word documents and Padlet to work together on a task. The online conferencing platform that was used to house the breakout room activities was Zoom, which was standard across all online courses offered by the university.

Aspects of Breakout Rooms that Facilitate Students' Learning Experience

The majority of the students expressed a preference for breakout room activities that require simplicity in technical skills requirements. The students identified that they felt there was specific allocated time for breakout rooms and that overly complicated activities within a group could hinder the collaboration and discussion. Related to this aspect, a student in the focus group discussion stated, “Since we have limited time in breakout rooms, I think most of us prefer platforms that are easy to use and allow multiple people to work simultaneously.” Thus, the students found collaborative tools such as shared Word documents and Padlet easy to use as they were more familiar with them.

The students also emphasised the advantages of open-ended discussion time to foster stronger relationships between classmates. In an online learning environment, it might be difficult for students to share their opinions, ask questions of one another, and foster a feeling of community. However, these unstructured discussions in a breakout room provided students with the right opportunity. A student said

that they “look forward to the open-discussion time,” as they are in a smaller group and can comfortably communicate with each other and ask questions regarding the course or upcoming assignment, which at times becomes difficult to communicate in front of the whole class.

Students also stated in the focus group discussion that they preferred having smaller groups of three students to have a proper chance to contribute, receive peer feedback, and ask to clarify questions with each other. A student explained, “it is actually better to have fewer students in a breakout room activity, as we can easily communicate and listen to each other. More students can make things complicated in a group.” This finding is important for educators to consider when forming breakout room groups in their online classes.

Challenges of Engaging in Breakout Rooms

Students in the survey and focus group discussion stated that they found it difficult to carry on with a task if clear instructions were not provided in the main room before being assigned to the breakout room. For this, students mentioned that instructions or guidelines should be explained properly beforehand.

Another issue raised by students was unequal participation or possibly dominance by certain group members. Students further explained that in a larger group of more than three students in a breakout room, not everyone can get a chance to participate due to limited time. A student in the focus group discussion mentioned that “Some students who are shy or disinterested do not speak up and are often left out in group discussions.” This disparity results in some students dominating the discussion while others contribute less, potentially leading to feelings of isolation or exclusion.

Another point mentioned in the focus group discussion was differences of opinion leading to conflicts. Students said that if group members did not get along well, it could lead to conflicting opinions and disagreements. Moreover, students shared another important element of a breakout room and that was the selection of a spokesperson to represent the group in the main room. A student stated that, “it is easy for some of us to participate actively in small groups as no one is judging us, but we hesitate to speak in front of the whole class once we return to the main room.” The reason that was provided by the student was the fear of making a mistake or being judged by other group members in a larger group.

Discussion

Breakout Room Use in Online Classes

This study explored the experiences and perceptions of university students in using breakout rooms in online classes. The first research question dealt with the ways breakout rooms are utilised in online classes. The findings highlighted that the frequency of breakout room sessions varied depending on the learning outcomes of the lesson. Moreover, the duration of breakout room activities varied based on the nature of the task. This adaptability is crucial in maintaining student engagement in breakout rooms and ensuring the time spent in discussion is productive. Shorter sessions may be more suitable for

quick discussions or brainstorming activities, while longer sessions are more appropriate for structured tasks like case studies or problem-solving exercises (Smith et al., 2020).

The group size is also important for maintaining a balance between diverse input and group dynamics. Smaller groups facilitate more active participation from each student, thereby enhancing the collaborative learning experience of the whole group (Nisa et al., 2021; Sharmin & Zhang, 2022).

While the research by Wachenheim et al. (2023) and Gimpel (2022) favour the instructor's presence in breakout room sessions, the data from this research presents a contradictory finding. At the graduate level, the majority of the students do not mind the instructor's absence in breakout rooms. They appreciate the freedom that their instructors provide to them, as they are able to take ownership of their learning and engage more freely with their peers in breakout room sessions (Chandler, 2016). However, to better manage the breakout room sessions, the instructor can provide a clear timeline for the duration of the breakout session, using broadcast messages to communicate with students while they are in a breakout room, as well as indicating the Ask for Help button when required.

Aspects of Breakout Rooms that Facilitate Students' Learning Experience

The second research question looked at the aspects that encourage students' learning, and for this reason, preference is given to breakout room activities that require minimal technical skills. The students in the focus group discussion emphasised that overly complicated activities can hinder collaboration and discussion, which suggests that simplicity in the design of breakout room tasks is crucial for the effectiveness of activities. The need for simplicity aligns with the reported use of user-friendly collaborative tools such as shared Word documents and Padlet, which students find easy to use and conducive to productive collaboration (Read et al., 2022).

Students also highlighted the value of open-ended discussion time within breakout rooms. These unstructured discussions allow for the cultivation of deeper connections among peers, which is often challenging in an online learning environment. Such interactions enable students to share their perspectives, learn from one another, and build a sense of community. As per Tsihouridis et al. (2022), this sense of community is essential for fostering a supportive learning environment, which can enhance student engagement and motivation.

Moreover, the findings by Read et al. (2022) indicate that engaging in structured activities like problem-solving exercises and peer-review tasks in breakout rooms are equally beneficial for students since it provides them with a chance to share knowledge and learn from their peers. Such discussions not only support academic learning but contribute to the social aspect of education, which is particularly important in the context of online learning where students may feel isolated if they are taking the course from a distance.

Challenges of Engaging in Breakout Rooms

The third research question dealt with the challenges students face in breakout rooms. One issue mentioned by the students was the difficulty they encounter when clear instructions are not provided in the main room before being assigned to breakout rooms. To address this issue, students emphasised the

need for clear tasks and suggested that providing instructions in writing would be beneficial. Written guidelines would allow students to refer to them once they are in their breakout rooms, thereby ensuring that everyone understands the task and can proceed efficiently. This recommendation highlights the importance of clear communication and preparedness in online learning environments (Douglas, 2023; Saltz & Heckman, 2020).

Another significant challenge identified by students is unequal participation and dominance by certain group members. In larger groups with more than three students, not everyone gets an equal opportunity to participate in the discussion due to limited time. This situation could result in some students dominating the discussion while others feel isolated or left out. To address this issue, educators should consider forming smaller groups to ensure equitable participation (Ahmed, 2021). Smaller groups facilitate more balanced interactions, allowing each student to contribute meaningfully and preventing any single member from dominating the discussion.

Moreover, conflicts arising from differences of opinion were also mentioned as a concern. Students noted disagreements could occur in a breakout room if group members did not engage well with each other or had completely different personalities. Another key point was raised particularly regarding the selection of a spokesperson to represent the group in the main room. This issue underscores the need for effective conflict resolution strategies and the development of interpersonal skills within the group. Educators can help mitigate these conflicts by providing guidelines for respectful communication and decision-making processes (Saltz & Heckman, 2020). Additionally, rotating the role of spokesperson among group members could ensure that all students contribute equally and fairly in an online class.

Conclusion

This research explored graduate students' experiences with breakout rooms in online classes. The students' survey and focus group discussion responses indicate that the dynamics of virtual collaborative spaces like breakout rooms hold significant promise for enhancing the quality of online education and students' learning. The findings suggest that breakout rooms can provide opportunities for smaller groups to collaborate, converse, and engage in targeted discussions, which may enhance students' communication and engagement. Moreover, the expanding use of breakout rooms as a teaching tool and the necessity for a thorough understanding of how students interact with and interpret this technology have been revealed in the literature research.

By exploring graduate students' experiences with breakout rooms in the context of Canadian online education, this study may inform universities seeking to optimise the use of breakout rooms in online classes. The focus on breakout room experiences was intentionally chosen to provide a more in-depth understanding of how small-group interactions shape learning in virtual environments. These boundaries helped maintain a clear research focus but also introduce certain limitations. The findings may not be generalizable beyond this specific context, as the study involved a relatively small sample of participants from a single institution. Moreover, the exclusive inclusion of graduate students means that

their perceptions and experiences may differ from those of undergraduate learners or students in other disciplines. These contextual and sampling boundaries should be considered when interpreting the findings and assessing their applicability to broader educational settings.

It would be worthwhile to further explore innovative tools and methodologies aimed at enhancing virtual collaboration in breakout rooms. Future research could involve advanced virtual platforms like AI-driven collaborative tools or mixed-reality environments that could elevate student engagement and interaction in breakout sessions. Additionally, conducting a comparative research study between undergraduate and graduate students would provide valuable insights into the use of breakout rooms at different academic levels, shedding light on the differences and adjustments required to cater to the diverse needs of students.

Moreover, it would be valuable to examine the long-term impacts of breakout room utilisation on students' learning outcomes, examining sustained improvements in student achievement, retention of knowledge, and development of critical skills over extended periods. These avenues of inquiry promise to deepen understanding and inform strategic enhancements in online education practices.

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Appendix A

Survey Questions

1. How frequently are breakout rooms utilised in your online classes?
Never - every other class - every class – other (please specify)
2. On average how many minutes do you spend in a breakout room?
3. a. What types of activities have you typically engaged in within breakout rooms? (Select all that apply)
 - Group discussions
 - Problem-solving exercises
 - Collaborative projects
 - Peer review sessions
 - Other (please specify):

b. Which activities do you find least interesting and most interesting: _____

c. Please elaborate on your answer from b _____
4. Rate the extent to which you find breakout rooms useful in enhancing your learning experience, where 1 is “None” and 4 is “To a great extent”.
None - Very little - Somewhat - To a great extent
Can you elaborate on your answer:
5. Rate the extent to which you feel adequately prepared for breakout room activities in your online classes, where 1 is “None” and 4 is “To a great extent”.
None - Very little - Somewhat - To a great extent
Can you elaborate on your answer:
6. What challenges if any, have you faced while participating in breakout room activities (Select all that apply)
 - difficulty with technology
 - lack of participation from group members
 - uneven distribution of workload
 - communication barriers
 - other (please specify):
7. How do you think the challenges faced in breakout rooms could be addressed or improved?

8. Rate the extent to which you interact with other participants within breakout rooms, where 1 is “None” and 4 is “To a great extent”.
- None - Very little - Somewhat - To a great extent
- Can you elaborate on your answer:
9. Do you prefer online classes with or without breakout room activities?
- With breakout rooms _____; without breakout rooms _____
- Can you elaborate on your answer:
10. Do you believe breakout rooms contribute to a sense of community and connection in your online classes? Yes/No
- Can you elaborate on your answer:
11. Rate the extent to which you feel breakout rooms promote collaboration and teamwork among students, where 1 is “None” and 4 is “To a great extent”.
- None - Very little - Somewhat - To a great extent
- Can you elaborate on your answer:
12. Rate the extent to which you find your tutor’s presence valuable in breakout rooms, where 1 is “None” and 4 is “To a great extent”.
- None - Very little - Somewhat - To a great extent
- Can you elaborate on your answer:
13. Rate the extent to which you find the incorporation of breakout rooms useful in your online classes, where 1 is “None” and 4 is “To a great extent”.
- None - Very little - Somewhat - To a great extent
- Can you elaborate on your answer:
14. What aspects of breakout room activities do you find most beneficial to your learning experience?
15. What, if anything, would make your experience with breakout rooms more positive?

Authors

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