DOI: https://doi.org/10.56198/5M1RHL2VU

Engagement in Online Synchronous Workshops: Fostering Interactive and Immersive Learning by Leveraging Breakout Rooms

Thayná Assis Bertholini[1]

[1]Federal University of Espírito Santo, Vitória ES, Brazil
thaynamari@hotmail.com

Abstract. The urgent need for online instruction, especially motivated by the COVID-19 pandemic, forced professionals worldwide to rush into adapting to online meeting tools. The application of active methodologies based on human-centered learning holds potential to ensure more interaction and engagement during online learning sessions. This workshop model, originally aimed to train Brazilian English language teachers, can be easily adapted to other scenarios. Its design and development followed principles and theories including learner-centered instructional design, online education, and evaluation processes for online instruction. This proposal focuses on implementing active methodologies via collaborative problem-solving tasks at various stages to support and build participants' confidence in using breakout rooms. When appropriately used, breakout rooms can enable the implementation of active methodologies, enhancing participants' interactions in online settings.

Keywords: Online Workshops, Breakout Rooms, Active Methodologies.

1 Introduction

This proposal is part of a broader master thesis to design a synchronous professional development workshop plan for Brazilian English language teachers on Student-Centered Learning (SCL), a branch of Human-Centered Learning (HCL). This project enhances the relevance of active methodologies application in online training sessions, using breakout rooms. The workshop design developed in this study is presented here as a blueprint for training sessions, not only for teacher training but also for any training session aiming at participants' interaction through inquiry as well as sharing and collaborative problem-solving tasks.

1.1 Rationale

The contemporary need for appropriating technological tools to support basic services in society, such as health, security, and education, was empowered by the COVID-19 pandemic. Online video conferencing has become a widely used tool for efficient remote meetings and training sessions, offering time and resource savings while facilitating remote participation, thereby promoting the benefits of working from home. However, synchronous videoconferencing may have lost its main purpose: providing people the chance of interaction in online environments. If nobody discusses matters in groups, if no task is problematized or solved, if nobody opens their cameras to interact, why have synchronous meetings become so popular when a recorded video would have the same effect? Are people really interacting in these online events? From personal experience, the application of active methodologies can positively support online meetings and training when it comes to participants' engagement, involvement, and learning in synchronous sessions through the thoughtful use of breakout rooms.

1.2 Objective

This paper shares a blueprint for online synchronous professional training that fosters and promotes active engagement and learning, using educational principles and active methodologies such as station rotation, inquiry-based learning, problem-solving, maker space, and debates.

2 Workshop Blueprint

This is a blueprint for a workshop of 180 minutes, which includes 15 minutes for a welcoming moment as well as a 15-minute break, whenever trainers see fit. Its structure contains six sections: Welcome (15 min), Warm-up (30 min), Task 1 (30 min), Task 2 (30 min), Task 3 (45 min), and Wrap-up (15 min). Following this timeframe is optional since the proposed activities may or may not require more time. Each of these stages applies one or more of the active methodologies.

STAGES	TIME	ACTIVE METHOLOGY IN USE
WELCOME	15 min	Station Rotation Instructions
WARM-UP	30 min	Learner-generated Questions / Station Rotation Practice
TASK 1	30 min	Problem-solving
Break Time	15 min	---
TASK 2	30 min	Maker Space
TASK 3	45 min	Station Rotation
WRAP-UP	15 min	General Debate

Fig. 1. Active methodologies within each workshop stage. Author's own creation.

2.1 Welcome Stage

The Welcome Stage aims to introduce participants to the media devices they will be using during the workshop. This stage is essential to allow participants to familiarize with the tools and functions in the virtual environment. It should allow visual identification and use of basic commands of the virtual application in use (e.g., opening the chat as well as turning microphone and cameras on/off), and, most importantly, joining and leaving breakout rooms. Technical support personnel is essential to assist participants in this process. All stages of the workshop and their dynamics can be informed to the participants so they understand the importance of the digital skills presented at this first stage.

2.2 Warm-up

The workshop facilitator will guide participants through this stage, which aims to break the ice, create a sense of collaboration and trust among participants, and either activate their previous knowledge on the workshop topic or teach about the basic content regarding the topic. Warm-ups can foster the development and maintenance of a sense of community within the group, which raises participants' interaction. This sense of community established right from the beginning also builds a cohesive learning community [1], a community of inquiry [2], and highlights the importance of the social aspect of learning [3–5] in online settings [6].

For pedagogical reasons, this warm-up was split into three steps. In step 1, the facilitator should have decided a few topics to name each breakout room in advance, based on the workshop's main content. Participants will choose the breakout room they prefer. This choice also represents a community of inquiry since all participants who chose the same group will have a common interest and an initial sense of belonging to a group. Each participant is expected to pose a question to the group regarding the context of the chosen scenario. Step 2 represents the actual brainstorming, in which participants will chat and organize themselves to answer each other's inquiry or pose more questions. The facilitator should briefly join each breakout room discussion, to ensure participants receive the workshop support they need. Finally, in step 3, participants will change to a breakout room with a different context, to share with other participants what they have just learned, their remaining doubts, and trying to answer other participants' questions. By promoting participants' integration in each other's inquiry and context, a positive and safe learning environment is created, where all participants are encouraged to share their vulnerabilities by posing questions, but also show their expertise by assisting each other in their search for answers. The

goal is to raise participants' awareness about our inner condition of 'incomplete' professionals [7] as lifelong learners.

During Welcoming and Warm-up, participants will not rely on any specific material. These stages are based on demonstrations and participants' practice in breakout rooms, requiring digital skills to allow them to engage autonomously and confidently in the following steps (i.e., Task 1, Task 2, and Task 3). After the warm-up, all participants should have a basic comprehension of the training session topic and will be assigned to their first task.

2.3 Task 1: Case Studies (Problem-Solving)

Task 1 requires more material. Since it is a situated problem-solving task, participants will be grouped according to the specific context they share, either experiences or interests, chosen in the Warm-up stage. Each group will be labeled according to the context selected. The first set of material design is the elaboration of each problem-solving task into a reading material. Each group will propose solutions for hypothetical real-life situations faced by similar professionals. Participants receive a list of questions they should answer to guide them through their discussion. Another set to be prepared is the supporting material for such a task. Assuming participants have different backgrounds and experience in the topic, anyone who does not feel confident to engage in the discussions can search for extra information online. They can do this either autonomously or by consulting the webpages recommended in the supporting reading list. Those lists should also be personalized based on each context of each group. In the example below, English language teachers joined a workshop on SCL, and had to choose one of the breakout rooms below, named according to the educational setting teachers would apply SCL principles. In this sense, all participants who have chosen the context of 'students over 50 years old' will join the same breakout room to receive their task and coordinate themselves to solve it.

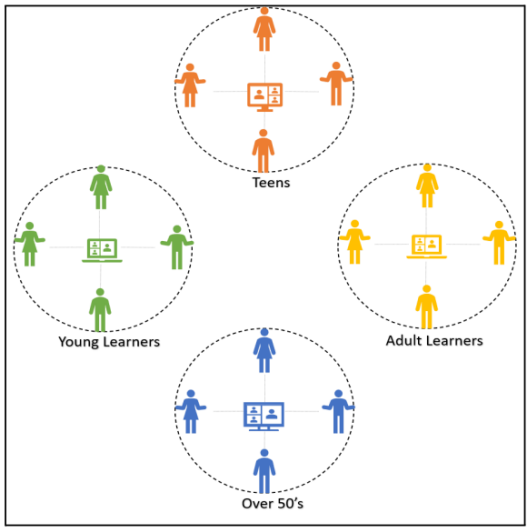

Fig. 2. Station Rotation distribution.

Task 1 expects participants to rely on their professional and life experiences, their previous knowledge, their discussions in the warm-up stage, and their perspectives towards an effective solution to answer the questions proposed, which steer the debate. The online material selection is presented to accommodate participants' distinct learning styles and provide them with options, which contributes to creating a comfortable learning environment. The facilitator will also be joining all breakout rooms to monitor the ongoing debates.

The choice of using case studies was pedagogical and strategic. They are a great asset to enable the acquisition of the workshop content, allowing professional improvement. Case studies offer the opportunity for participants to engage in discussions and to collaborate in favor of providing a collective response to their problem, articulated by all group members [8].

2.4 Task 2: Digital Maker Spaces

Each group will plan a visual aid summarizing their conclusions from the previous stage. They can rely on the various types of digital applications that are freely available online. Some examples would be: slideshow appli-

cations (e.g., PowerPoint 360, Google Slides), note-taking (e.g., Google Keep, Evernote), collage, drawings, website creators (e.g., Google Sites, Adobe Spark), brainstorming (e.g., Google Jamboard, Padlet), dynamic presentations (e.g., Canva, Prezi), among others.

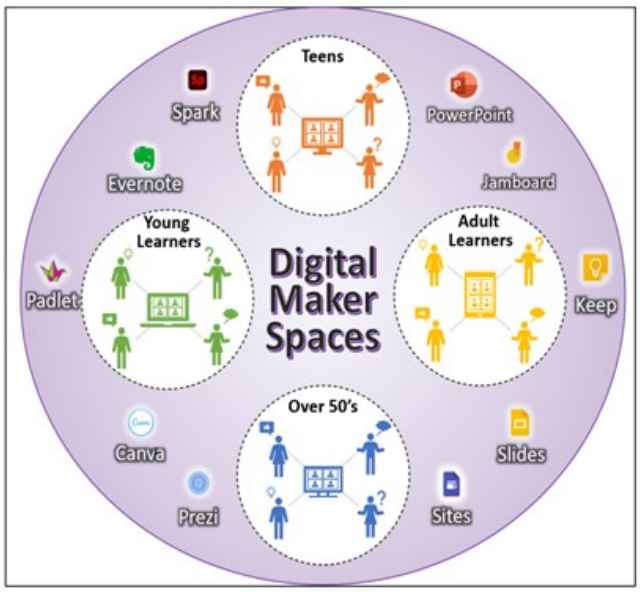

Fig. 3. Digital Maker Spaces organization.

There is no need to anticipate any specific material preparation. Participants should have autonomy over the design and the digital development tools they use. However, some suggestions can be offered to support less technology-fluent participants. Fostering participants' autonomy over the tools they want to use aligns with the SCL principles, which are crucial for this workshop design. It is also important to remember that participants' engagement in this task is decisive for their action in the upcoming task, since Tasks 1, 2, and 3 are interdependent.

2.5 Task 3: Station Rotation

In Task 3, groups will engage in a debate, which allows participants to present their work from Task 2 to other group members by using the station rotation concept via breakout rooms. The same previous breakout room can be used, but this time the group participants should be organized so that each breakout room contains one member of each topic group initially determined. The objective here is that participants find a group where they do not know the other members since they were discussing different topics. For instance, in the breakout room named 'Teens', only one member of the 'Teens' original formation should stay in, and will start the presentations. Other members will each be from 'Young Learners', 'Adult Learners', and 'Over 50s'.

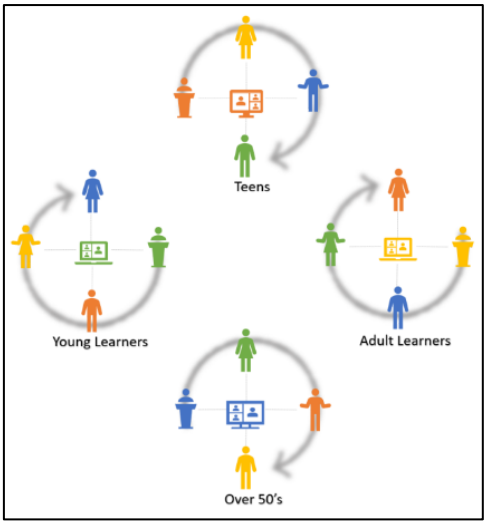

Fig. 4. Station Rotation Dynamic for presentations.

This way, each member will present their conclusions to their audience and all participants will play the role of students (i.e., presenting their visual work) and the role of teachers (i.e., observing their peers' performance and analyzing their work). There is no material requirements at this stage. However, it is expected each participant ask a set of questions by the end of each presentation.

2.6 Wrap-up

Finally, the Wrap-up stage requires a slideshow presentation or any other visual support to enhance and review basic concepts regarding the workshop content. The facilitator may also use a set of questions to guide an evaluation discussion of the experiences participants have undergone. As participants may not have had time to process and accommodate all the stages of the workshop they went through, an evaluation survey on Google Forms should be emailed within a week after the workshop completion. Thus, participants will have the chance to better assess not only the quality of the service provided, but also the impact it may have on their professional practice.

3 Design Considerations

The original ideas presented here were based on a group of 20 participants. The expected success of applying this blueprint to your online workshops or training sessions relies on the understanding that the number of rotation stations implemented will determine the optimal number of participants. It is recommended each rotation station to have at least three participants who can share experiences among each other to reach a solution in their tasks. In case of larger groups, it is highly recommended the trainer to adapt the number of rotation stations and the number of participants in each. In fact, determining the number of participants for each room is a built-in required setting for video conferencing platforms that provide breakout rooms. In all scenarios, the number of participants should always be the same within each rotation station. Otherwise, either the flow of activities or participants' engagement levels may be affected due to the collaborative nature of this blueprint. Larger groups will also require a larger assistance staff to support participants online through all the tasks.

3.1 Material Preparation

The materials made available to participants in this workshop blueprint can be a result of either a thoughtful selection among publications in the field of study or a personalized designed material. The latter represents the focus of this project. The design of workshop materials should be based on the workshop principles while promoting relevant learning experiences through multimodal presentation of its content and spaced reinforcement. It is also paramount to consider participants' distinct learning styles, attitudes, motivation, among other individual differences and needs [9]. Since participants will approach each task according to their learning preferences, their previous knowledge and experiences, and their expectations, learning through the provided materials and tasks can ensure a constant reassessment of what they have learned, what they are learning, and how to accommodate a new professional mindset through the discussions each task/rotation station offers.

3.2 Online Delivery

Participants should be familiar with the technology used for delivering the course (i.e., breakout rooms) as well as any other software, website, or media they choose to use during the tasks. Tutorials on how to use breakout rooms as well as their functionality could be sent to participants along with their registration confirmation email. Extra accommodation solutions can be offered through (a) the workshop description, (b) a recommended reading to provide participants with some context on the topic, and (c) a list of pre-requirements for successfully attending this workshop. After their registration, participants can also be asked to answer a questionnaire on Google forms, aiming at collecting data about their digital literacy levels as well as their needs and expectations towards the workshop or training session. Such information can be used to define the groups for the tasks so that the synchronous online workshop can actually promote meaningful learning and address participants' needs if it is the case.

Although this model requires technology assistance to provide on-demand support to participants, the main purpose here is to support participants to navigate across the breakout rooms and provide similar support during group work dynamics. It is important to remark that participants' minimum command of digital devices and productivity software are pre-requirements for attending this workshop.

4 Discussion and Next Steps

Different needs and environments demand different approaches and methodologies. The concepts implied in theories of curriculum and course design may be an alternative and more practical answer than expecting miraculous training methods. When professionals are able to work on the theoretical level, they can understand how each principle fits into distinct scenarios, providing the flexibility necessary in their field. The application of digital active methodologies is a means of illustrating how meta-teaching is feasible across education modalities and purposes.

Collaborative problem-solving tasks can overturn professionals' isolation, empower them, promote respect, encourage intellectual communities, and develop a shared understanding of what good working practice means. These tasks entail active learning, leadership enhancement, interdisciplinary reasoning, and collaborative group work. When collaborative problem-solving tasks constitute one of the premises for a workshop design, participants contribute to work environment changes by better connecting learning and applying new concepts to their practices. It makes the process meaningful and is likely to influence their outcomes. In order to lead participants to reassess their professional beliefs, they need to experience different types of instruction, so that they understand their implementation and can contrast differences and similarities among them. Through dialogue, professionals can assist each other move towards new understandings. All discussions that take place throughout this workshop blueprint design should serve as input reinforcement. Moreover, participants' involvement in solving tasks collaboratively dictate the improvements in learning.

Participants' reflective practice, whether individually or in groups, is an important tool to facilitate the recognition of what they have been doing and the new practice procedures so that they can adapt accordingly. When they become more engaged in learning, they are able to see effective results in their performances. Collaborative actions, as professional learning communities, have emerged as a possible alternative to provide individuals some space to learn, discuss, reflect upon their practices, and improve their individual performances. Continuous professional development must be followed by continuous experimentation and iterations.

Since the scope of this proposal was originally circumscribed to the design of the author's master degree thesis, theoretical and methodological foundations guided this workshop blueprint design. However, its implementation process and outcomes should happen in a future research project and should be presented to the academic community. Evaluating the effectiveness of this blueprint experiences is a further step in research. It is also important to assess the impact of participants' outcomes, the implementation processes, and other possible applications, plug-ins, and extensions that would fit this workshop format, as BigBlueButton, Gather Town, Microsoft Teams (with caveats). Some of the limitations of this work could serve as inspiration or motivational topics for further research. Nevertheless, this work provides trainers with the means to share opportunities for participants to transition their mindset towards a more human-centered practice. Furthermore, the underutilization of breakout rooms highlights the ongoing need for digital literacy among professionals. It is crucial to acknowledge that while excellent tools exist, they remain unused, emphasizing the importance of leveraging existing resources rather than reinventing the wheel.

References

1. Dixon, J., Crooks, H., Henry, K.: Breaking the ice: Supporting collaboration and the development of community online. Canadian Journal of Learning and Technology/La revue canadienne de l'apprentissage et de la technologie, 32(2), (2006).
2. Garrison, D. R., Anderson, T., Archer, W.: Critical thinking, cognitive presence and computer conferring in distance education. American Journal of Distance Education, 15(1), 7–23. (2001).
3. Dewey, J.: Democracy and education: An introduction to the philosophy of education. Pennsylvania State University. (1916).
4. Moore, M. G.: The theory of transactional distance. In M. G. Moore (Ed.), Handbook of distance education (3rd ed., pp. 66–85). Mahwah, NJ: Lawrence Erlbaum. doi:10.4324/9780203803738.ch5. (2013).
5. Wenger, E. C., Snyder, W. M.: Communities of practice: The organizational frontier. Harvard Business Review, 78(1), 139–146. (2000).
6. Wegerif, R.: The social dimension of asynchronous learning networks. Journal of Asynchronous Learning Networks, 2(1), 34–49. (1998).
7. Freire, P.: Pedagogy of the oppressed. New York.–London: The Continuum International Publishing Group Inc. (2005).
8. Kelch, K., Malupa-Kim, M.: Implementing Case Studies in Language Teacher Education and Professional Development. Ortesol Journal, 31, 10–18. (2014).
9. Nation, I., Macalister, J.: Language Curriculum Design. New York: Routledge. (2010).