Conferencing Tools for Teaching & Learning: Best practices

Conferencing Tools for Teaching & Learning: Best practices

A guide for educators

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Introduction: Conferencing tools for teaching and learning

Conferencing tools are a technology that allow educators to engage with their students in real-time and may provide the ability to see, hear and virtually interact* with students using a computer, tablet or mobile device (*depending on how participants are connecting, i.e. webcam, microphone)

Conferencing tools can be used in educational contacts to strategically support pedagogy/androgogy.

This resource has been created for KPU educators to explore best practices for using conferencing tools for teaching and learning. The strategies provided within this PressBook are adaptable and may be used with any conferencing tool in educational contexts. Each chapter contains critical considerations for using conferencing tools to support pedagogy and provides an overview infographic for the key take-aways.

Included are considerations for general etiquette, hosting virtual office hours, facilitating group work and presentations, lecturing, showing videos, hosting external presenters, and managing the space. Additionally, theoretical frameworks to support best practices when teaching online are provided.

Finally, exemplar course activities that can be used in the KPU supported conferencing tools, BigBlueButton, Microsoft Teams, and Zoom; are included.

1. Privacy and Security

The application of conferencing tools in educational contexts requires careful consideration surrounding student data privacy and security.

The first step for faculty to be proactive in supporting KPU data security is to keep "the software on your home computer up to date, including Antivirus protection" ([KPU IT Resources for Employees](#)). Taking simple steps, like paying attention to software update notices and designating a schedule for updates ensures optimal protection from outside intrusion.

These individual software safeguards are further reinforced by principles and procedures adapted and developed by KPU. This operative guide ensures compliance with privacy laws and respects personal information: [Privacy & FIPPA Guidelines for using Web Technology](#)

"FIPPA restricts public bodies from storing or accessing personal information in hosting sites that are outside of Canada. Public bodies are also responsible for maintaining the security of personal information that is collected and cannot outsource that responsibility even if the actual collection, storage, access and disposal is managed by an outside provider. This places restrictions on the university's ability to use what is commonly called "cloud computing" and social media sites without performing due diligence regarding data security and getting consent from end-users if the site stores personal information outside of Canada.

Additionally, the following resources illuminate several considerations to ensure that KPU students are best protected. Clarity on software choice, access protocols, and KPU recording and sharing policies are only a few insights provided here:

Links:

- [KPU conferencing tools best practices](#)
- [Guidelines for recording lectures and session activities in KPU's conferencing spaces](#)
- [How to manage participants in a KPU Zoom session](#)
- [Understanding Zoom Roles](#)

Privacy & Security:

KPU Conferencing Tools

#1. Use KPU supported conferencing tools

Use only KPU supported conferencing tools to ensure student data is secure. KPU installs are unique from other institutions; even if you have access to one of the same conferencing tools elsewhere, you cannot use it with students at KPU

#2. Adhere to KPU privacy standards

Using conferencing tool technologies increases the potential for exposing student data. BC's laws restrict the storage or use of information outside of Canada, and KPU is governed by FIPPA. Faculty have a responsibility to protect the privacy of the students within their courses

#3. Observe KPU recording guidelines

Recordings are subject to FIPPA, and KPU students must be made aware of the recording and have the option to turn off their cameras. The KPU "collection notice" must be posted before the recording begins, either with the session link in Moodle or included in the email invitation.

#4. Respect personal privacy

If using webcams in the conferencing space, you may see student's private homes and spaces, and they may see yours; be aware of your background and respect the privacy of students who have "invited you" to their personal lives; and not by choice

Infographic: Privacy and security

2. General etiquette for conferencing tools

Using a conferencing tool to support real-time teaching and learning is much more complex than simply arriving in the space ready to teach. Conferencing tools are a technology and require some thought and planning. Thus, the foundation of conferencing tool etiquette is to provide an effective environment with clear expectations and confident software use. While codes of respectful debate and dialogue transfer to online sessions directly, the facilitation of these forums have become more complex. In order to give full attention to how dialogue and interaction occur, technical and instructional issues must also have influence. Here are some tips for success, adapted from Gyorke (2006):

- Get to know the space and learn to operate it without assistance. Even if IT is available at the time of a technical crisis, learning to use the equipment will allow you to troubleshoot in the moment. Keep the IT contact information on the ready, just in case something goes wrong that you cannot troubleshoot
- Run a test session to ensure you have the right setup. One of the most common setup problems is lighting that is poor or too bright, so think about investing in a lamp or other light source
- Have a backup plan – what if it fails? (WiFi connection, power failure) what is your plan 'B'? For instance, having the class email list easily accessible, or providing a specific email address to be contacted in an emergency, improves communication and trust.
- Learn the names of your students, it takes more effort to get to know them in an online space
- Don't assume your students are savvy, provide information to them, including, IT contact information and KPU Learning Centre resources to support them in using the space
- Share your expectations with students what the protocol for asking questions. Do you want them to interrupt you as you're speaking (with a question or a raised hand) or will you allow certain times for questions?

The following key considerations are also vital to effective facilitation in conferencing spaces:

✓ Etiquette for conferencing tools

Headset

Background noise can get in the way, wearing a headset can eliminate interruptions and help students hear you clearly

Mute

Mute yourself when you're not speaking and ask students to do the same. This reduces background noise for everyone in the session

Webcam

Share your webcam so students can see you. This helps to establish your presence and allows students to see your expressions and gestures when speaking

Record

Recording your session allows students who are not present the ability to view the session, and provides an opportunity for all students to watch and reflect on the session's content

Set-up

Connect a few minutes early so you can set up and feel prepared to start on time. Just like in face to face classes, some students will arrive early

Scan

Scan your work area, what is in the webcam frame that students will see? Some tools will allow for virtual backgrounds, but not all do, so be aware of your personal surroundings

References:

Gyorke, A. (2006). Faculty Guide to Teaching through Videoconferencing. Education Technology Services, Penn State University.

3. Theoretical frameworks and conferencing tools

The application of conferencing tools in educational contexts requires the thoughtful underpinning of theoretical frameworks to support best practices. Like any Educational Technology (EdTech), conferencing tools should be selected to support pedagogical approaches and strategies. This chapter presents two theoretical frameworks that have been effectively applied to online learning and can support best practices using KPU's supported conferencing tools. It is important to note that many theoretical frameworks can support online learning and conferencing tools, and only two are being presented in this chapter.

One of the most recommended theoretical frameworks by the KPU Teaching and Learning Commons is the Community of Inquiry (CoI) framework. The CoI framework represents "a process of creating a deep and meaningful (collaborative-constructivist) learning experience through the development of three interdependent elements – social, cognitive and teaching presence" (Garrison et al., 2000, p. 88). The CoI framework is directly applicable to conferencing tools as it "provides a dynamic model for an institutional approach to move away from a passive lecture that fundamentally reshaped the educational experience based on thinking and learning collaboratively" (Bektashi, 2018, para. 19). As general examples for application, *cognitive presence* involves facilitating appropriate discourse, collaboration, and reflection to support deep, meaningful learning. *Social presence* is the purposeful engagement, interaction and relationships between members of the group. *Teaching presence* is the activities surrounding the design, organization, and instruction of the course.

A second theoretical framework that can underpin the best pedagogical approaches when utilizing conferencing tools is the Online Collaborative Learning Theory (OCL). Harasim (2012) proposed the OCL theory, which "focuses on collaborative learning, knowledge building, and internet use as a means to reshape formal, non-formal, and informal education for the Knowledge Age" (p. 81). Harasim (2020) underscored the importance of three critical phases of knowledge construction through discourse, including idea-generating, idea organizing, and intellectual convergence.

Link: KPU COI Resources

What is the Community of Inquiry (COI) Framework?
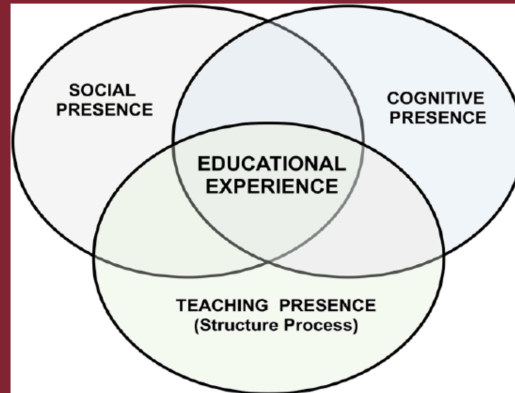
The Community of Inquiry theoretical framework represents a process of creating a deep and meaningful (collaborative-constructivist) learning experience through the development of three interdependent elements – social, cognitive and teaching presence

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. The Internet and Higher Education, 2(2-3), 87-105.

Social Presence

Social presence is the purposeful engagement, interaction and relationships between members of the group.

- Provide activities for instructors and students to share experiences
- Get to know your students as individuals
- Providing opportunities for introductions and social interaction
- Set group agreements for learning and interacting in the community

Teaching Presence

Teaching Presence is the activities surrounding the design, organization, and instruction of the course

- Be clear about choice and flexibility
- Share your thought processes to reveal reflection and decision making
- Provide ongoing feedback to support achievement of learning outcomes
- Provide explicit directions and expectations for all course activities

Cognitive Presence

Cognitive Presence involves facilitating appropriate discourse, collaboration, and reflection to support deep meaningful learning

References:

Bektashi, L. (2018, July 09). Community of Inquiry Framework in Online Learning: Use of Technology. licensed under CC 4.0. https://techandcurriculum.pressbooks.com/chapter/coi-and-online-learning/

Conrad, D. (2014). Interaction and communication in online learning communities: Toward and engaged and flexible future. In O. Zawacki-Richter, & T. Anderson (Eds.), Online Distance Education: Toward a Research Agenda, (pp. 381-402). Athabasca, AB: AUPress.

Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education model. *The Internet and Higher Education, 2* (2-3), 87-105.

Kelly, R. (2014, January 7). Creating a Sense of Instructor Presence in the Online Classroom. Faculty Focus. https://www.facultyfocus.com/articles/online-education/creating-a-sense-of-instructor-presence-in-the-online-classroom/

Vaughan, N. D., Cleveland-Innes, M., & Garrison, D. R. (2013). Facilitation in Teaching in blended learning environments: Creating and sustaining communities of inquiry. Athabasca University Press.

4. Hosting virtual office hours

A thoughtful implementation of office hours is an essential component of the learning process and is a recognized best practice. Chickering and Gamson (1989) postulated that "frequent student-faculty contact in and out of classes is the most important factor in student motivation and involvement" (p. 3). KPU supports this practice with conferencing tools to host virtual office hours and engage with students in real-time using: webcams, microphones, chat features, and dial-in phone access. Understanding how students access the meeting space, and the devices used, creates an opportunity for students to relate to their instructor on an individual level, which is known to support progress and development.

A balanced schedule of virtual office hours based on course dates and times, like assignment due dates, can provide students with timely support during the course's critical points. It has been common to select office hours based on the class schedule, but this approach can limit support. Providing appointments outside of the scheduled hours and offering alternatives, such as email communication, encourages connection with students who may not be comfortable or capable of meeting by video, online.

Asynchronous channels can also act as filters for virtual office hours, as some student enquiries can be addressed in email format. Creating a reference source of text, video or other media that encapsulates common questions or issues experienced teaching the class proactively shows empathy for student need.

Another consideration is that just as traditional classroom instruction has been affected by video conferencing, so to should office hours. Perhaps designating certain dates for Q&A on specific content, or perhaps offering a Jeopardy-type game to be played with important course content can engage and educate learners while more effectively utilizing the technology.

Links:

- [KPU BBB FAQ](#)
- [KPU Zoom: Enable Waiting Rooms for Office Hours](#)

Hosting Office Hours Using KPU Conferencing Tools: A Checklist

KPU | Teaching & Learning Commons

- ☐ Choose a KPU supported conferencing tool and become familiar with using the space

- ☐ Be aware of KPU resources and supports for the chosen conferencing tool

- ☐ Create a schedule and clearly indicate when office hours will be hosted - consider time zones

- ☐ Decide on a structure: are sessions drop-ins, or by appointment only? Groups or one-on-one?

- ☐ Provide explicit instructions for etiquette and expectations for virtual meetings

- ☐ Consider privacy when setting up your workspace ie. working from home in communal areas

- ☐ Offer alternative methods to connect - consider bandwidth and access issues

Infographic: Checklist for hosting virtual office hours

References:

Chickering, A. W., & Gamson, Z. F. (1989). Seven principles for good practice in undergraduate education. Biochemical Education, 17(3), 3.

5. Fostering engagement in conferencing spaces

Many instructors struggle with how to foster student engagement in online spaces. In traditional classrooms, it was natural to be keenly aware of engagement by sharing the same physical space. The long tradition of lecture-based instruction defined students as almost passive absorbers of instructor knowledge only activated in discussions, activities or assessments; nevertheless, just the physical presence in the classroom created student engagement merely by being surrounded by peers and instructor(s). Travelling to class allowed for mental orientation to not only the content but also the delivery. With video conferencing, the learning space is not physical, and effort is required for students to prepare for higher-order mental interactions while sitting in the same place they engage in non-academic activities.

The reality of face-to-face contact has also changed. Quite often, students have cameras turned off or are off-screen, resulting in a dramatic sense of loss of real-time feedback, leaving instructors helpless to respond, modify or review, unless directly asked or through the use of conferencing tool features, like polls. This applies to students as well, since facial expressions and tone of voice 'are missing or often misconstrued in an online environment' (Basko & Hartman, 2017).

The first method to employ as faculty is to remember that students need to take responsibility for their learning. This should be made explicit by articulating clear reasons and guidelines for the video conferencing portion of the course, for example, stating preferences for cameras being turned on to better tailor your teaching to facial reactions and feel more personally connected to the class. Being explicit about your intentions appeals to the student's desire for quality teaching. However, understanding that not all students are comfortable on camera, or lack the technical requirements, means flexibility with requirements must also be articulated.

Clear and practical instructions on how to function in the conferencing space also promote student engagement. If students are unsure of where and how they will connect to sessions, navigate the space, and ask questions (use an emoticon, wait for a specific time in the class, etc.), they are going to have a more challenging time engaging. If instructors prefer to do knowledge checks throughout, it is essential to ask clear and pointed questions rather than general ones that invite a rather oppressive silence if not answered immediately. Addressing students by name is one way to create engagement as long as there is no undue pressure on the student to produce correct answers, but as an expected part of the learning process.

The final note is that time is an essential consideration. A three-hour classroom lecture does not translate into a three-hour video conference. Learning in digital spaces is physically and mentally draining; thus, effective time management for video conferencing must be guided by the intersection of technology and pedagogical practice to support learning outcomes. Considering whether the content is best delivered synchronously, asynchronously or a mix of both helps instructors create more engaging sessions.

Some asynchronous considerations are to first review your classroom teaching and identify content that is clearly repetitive versus changeable or developing – class to class or semester to semester. The repetitive material can then be captured in audio or video so the synchronous sessions can be better used for clarification, application and/or development. Recording the introductions and overviews of course content not only frees time in 'live' classes, but allows for multiple interactions with material at the student's discretion.

Fostering engagement in conferencing spaces

How will students communicate with the instructor & their peers in the space?

Choose features like chat, emoticons, polling, shared notes, and breakout sessions to support your pedagogical strategies and achieve your objectives

Time is an essential consideration. A three-hour classroom lecture does not translate into a three-hour video conference

Consider what value the synchronous session brings, does the delivery need to be synchronous?

COMMUNICATION

TIMING

INTERACTIVITY

CLARITY

fostering student engagement in online spaces takes effort - How will you ensure the virtual sessions are interactive?

Virtual sessions are NOT engaging if students are merely passive observers

Be explicit & articulate the intentions of the virtual sessions. Students will be motivated to learn if they can see the value of their learning journey.

Clear instructions on how to function in the space promotes engagement, provide resources for students

Infographic: Fostering engagement in conferencing spaces

References:

Basko, L., & Hartman, J. (2017). Increasing Student Engagement Through Paired Technologies. *Journal of Instructional Research*. 6. 10.9743/JIR.2017.4.

Takacs, S. (2020). Engagement in an Online Environment: *KPU FreshDesk.* https://kputlcommons.freshdesk.com/support/solutions/articles/43000573445-engagement-in-an-online-environment

Waddington, L. (2019). Discussion-based learning: Considerations for blended learning [Blog]. *KPU FreshDesk.* https://kputlcommons.freshdesk.com/support/solutions/articles/43000523511-blog-discussion-based-learning-considerations-for-blended-learning

6. Lecturing using conferencing tools

While it is common to focus on the differences between classroom and video conferencing lectures, there are quite a few similarities, especially regarding the tools available. While quite different in physical form, the whiteboard, share-screen function, and ability to upload presentations and files all translate nicely online and can provide a rich learning experience for students. Although these capabilities are available in KPU supported tools, such as BigBlueButton (BBB), instructors must consider the value of facilitating a synchronous session. A three-hour lecture online is not effective or engaging (arguably also true in the classroom!). Conferencing sessions should be less than 90 minutes to support engagement and deeper learning. Consider a combination of synchronous and asynchronous teaching methods and use synchronous sessions to support meeting the learning outcomes.

When lecturing in online spaces, it is crucial to consider the chosen tool's abilities concerning file types and size restrictions to make the best use. An advantage of creating online content is that once created; it is relatively easy to change, share and update. For example, recording a synchronous session where important course content is presented creates an excellent resource for students to interact with multiple times, at their own convenience.

If done well, lecturing and delivering content online can be used to support active learning. For example, rather than just displaying text-based content, the text could be put on a BBB slide, and students could annotate on it using the collaborative whiteboard feature before engaging in a post-activity discussion. Quick polling, microphones, and public chat features allow for quick knowledge checks and feedback to guide more extended discussions or debates. BBB's polling feature can be used for formative assessment and as a democratic tool so students can vote on what they need or want to learn more about. Students can use emoticons to demonstrate a lack of understanding or if they want to ask a question. The chat feature can be used for real-time questions and answers about the content or concepts being presented, and the shared notes space makes collaborative writing activities possible. The chat and polling features can be downloaded and shared with the students for review and more in-depth study.

Many of the tools used in traditional classrooms are translated into features in KPU's conferencing spaces; nevertheless, instructors should use these tools to augment the learning experience and to assist students in meeting the learning outcomes. Moreover, while many tools are new to this environment, it is the pedagogy that dictates its use, so consider quality teaching first, and then look for the best tools for the job.

Considerations for lecturing in conferencing spaces

1 — Clear Outcomes

Be clear about the learning outcomes and use features such as polling and public chat to create a more interactive lecture. Online there are less organic opportunities for feedback & insight into the non-verbal reactions of the students, and using these features can add value to the lecture & help students meet the outcomes

2 — Functional Features

Focus on the similarity of tools used in the classroom & the features available in the conferencing space. Whiteboards, screen-sharing, uploading files, and slides are all modernized methods of delivering content online. Understanding file types and sizes and how to use these tools effectively is vital before successfully using them with students

3 — Time Value Ratio

A three-hour lecture online is not effective or engaging (arguably also true in the classroom!) Conferencing spaces should add value to the learning, and sessions should be less than 90 minutes. Consider a combination of synchronous and asynchronous teaching methods and use synchronous sessions to support meeting the learning outcomes

Infographic: Lecturing in conferencing spaces

*NOTE: Be sure to record student access.

References:

Kozlowski, K. (2019). Episode 1: Move Your Lecture to the Next Level with "Lecture +" and Universal Design for Learning Principles!. Beyond the Chalkboard [Podcast]. *KPU Freshdesk*. https://kputlcommons.freshdesk.com/support/solutions/articles/43000522718–podcast-episode-1-move-your-lecture-to-the-next-level-with-lecture-and-universal-design-for-le

KPU Privacy Committee (2020) Video-conferencing for teaching and learning: Acceptable use and best practices. https://kputlcommons.freshdesk.com/support/solutions/articles/43000604541-video-conferencing-faq-recording-lectures

7. Facilitating group work

While some courses require more group work than others, the shortness of time that students can effectively pay attention to lecture-only delivery through video conferencing should prompt all educators to consider enlivening and enriching the learning through group work. KPU conferencing tools have some excellent features that can be utilized for group work activities, such as breakout rooms in BigBlueButton (BBB) and Zoom.

The key to effective facilitation of online group work is to be clear with the expectations and instructions and inform students how the activity or assignment connects to the course learning outcomes. Providing context and guidelines increases collective understanding. However, it is important to remember that it can be challenging for many people to start talking and sharing their thoughts with others. For this reason, it is critical to be clear that the relationship is functional rather than adding the unspoken pressure of developing personal relationships. For example, assigning students to specific roles, like note-taker, or designating discussion starters as each class begins, highlights student responsibility in the learning process and encourages engagement while reducing personal pressure.

Instructors should decide how to group the students carefully, will they be randomly assigned by the software using breakout rooms? Or will students choose their groups? Each of these choices can have positive and negative aspects in terms of impact. For example, having students choose their own groups can lead to feelings of exclusion if friends choose friends, but perhaps the task could use the help of familiarity and thus that possibility of exclusion must be managed. Knowing and articulating why you have chosen the method you have will help students feel confident in the process and encourage participation.

If using breakout spaces, an instructor can move between rooms as an instigator, moderator, or listen to the group dialogue. Instructors should be clear with the method they plan on using to join groups. Alternately, instructors should provide direction on how students can contact the instructor during the breakout sessions.

If designed thoughtfully, facilitating group work can expose students to multiple perspectives, improve understanding of course concepts, and help students navigate personalities and dynamics expected in real-world contexts.

The creation of groups should support meeting the learning outcomes and once established, the choice of methods and tools will be clarified.

Links:

- [Creating Students Groups in Moodle KPU FreshDesk](#)
- [Creating a Group Assignment in Moodle KPU FreshDesk](#)

# Facilitating Groupwork using KPU Conferencing Tools

Best Practices

Constructive Alignment

Group activities, assignments, and assessments should clearly align with the course learning outcomes and support students in demonstrating and meeting those outcomes

Clarity

Be clear with expectations & instructions. Providing explicit guidelines for the task group etiquette, acceptable behaviours, and participation expectations support student success!
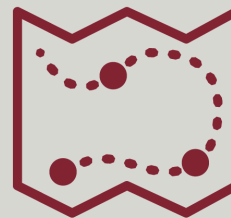
Feedback

Consider your role and how you can support the process. How will you check in with the groups and assess if they are on the right track? Connecting early & often when facilitating online group work enables you to identify gaps in understanding or issues that may arise in the process, this is essential to student success

Infographic: Groupwork best practices

References:

Davidson, C., & Katopodis, C. (2020, Oct 28). 8 Ways to Improve Group Work Online. Inside Higher Ed. https://www.insidehighered.com/advice/2020/10/28/advice-how-successfully-guide-students-group-work-online-opinion

8. Providing online meeting spaces for student groups: Guidelines and set-up

KPU supported conferencing tools offer students and instructors some choice concerning the virtual meeting spaces available for student groups and peer collaborations. KPU's Zoom install allows students to create their accounts and schedule meetups through their KPU email, providing a self-directed means to support their learning. BigBlueButton (BBB) is integrated with Moodle and students can access these BBB spaces only if instructors set it up in their Moodle sites for student use (Click here for instructions). Regardless of the conferencing tool utilized to provide student meeting spaces, there are many considerations which instructors should be aware of.

If using BBB, the instructor must create the students' spaces in a Moodle course site as students do not have permission to edit the course. When creating group spaces, identify them clearly; for example, if groups are alphabetized, name the BBB spaces group 'A' and group 'B'; or if the groups are topic-based, use the topic name. Designate a team or group leader in the BBB set up, assign them as the moderator; this student should be responsible for opening and closing sessions and will have master control over the features in the space.

Another important action is to clearly articulate the guidelines for use and expectations in terms of the technical requirements of scheduling, accessing, and interacting is essential before sending students off on their own. As well, create a communication plan so that students can easily reach you should an issue arise or clarifications are needed to support the process.

Finally, do not assume that students are 'savvy' and can navigate these spaces or maximize the built-in features. Provide students with KPU resources, such as BigBlueButton resources for students, a link to the KPU IT self-service portal, and a link to the KPU Learning Centre Resources.

Providing Online Meeting Spaces for Student Groups: Guidelines and Set-up

- **Provide resources for using KPU's conferencing tools from the KPU Learning Centre**
- **Assign ONE student as the moderator**
- **Recommend sessions be under 90mins in length**
- **Instruct assigned moderator to "end" session when group meeting is finished**

Create the meeting space and **Name** the link or access point using terms easily recognizable to the students IE. *Group 'A'*, *Group 'B'* etc.

Designate or ask groups to select one individual to be the meeting space **moderator**.

Create a **communication plan**. How will you **make yourself available to the groups** for questions and clarifications?

Provide groups with **guidelines for use**, including recommended session length, and for *Netiquette* in online spaces

Provide students with links to **digital resources** from the **KPU Learning Centre**

KPU Teaching & Learning Commons

9. Assessment in Conferencing Spaces

Designing meaningful assessments is essential when seeking to align course outcomes and authentically measuring student achievement in regards to learning outcomes. Assessment is an incredibly important part of learning as students rely on these evaluations to judge their success in the course. Instructors need to ensure that their assessment methods are clear, applicable and most importantly, designed to measure student achievement of the learning outcomes.

Conferencing tools can support formative and summative assessment while also allowing for creativity in designing useful and unique assessment activities and processes. It is vital that instructors not merely move what they do in the classroom to the conferencing space when assessing students online.

Formative assessments are focused on how students are interacting, progressing and retaining course content to achieve the learning outcomes. Conferencing tools can play a valuable role in this process. It is always essential to start with pedagogical clarity, which then illuminates the search for the most appropriate KPU supported conferencing tool to use. The affordances of conferencing tools for formative assessment include scheduling one-on-one or group check-ins with students and offering open drop-in sessions for additional support. Polling, emojis, and chat features can be used in conferencing spaces to provide and receive immediate feedback, identify gaps and misconceptions, and to assess comprehension of course concepts.

Video Conferencing Features to Consider for Formative Assessment:

All Platforms Have:

1. Two-Way Audio & Video
2. Public and Private Chat
3. Audio & Video Recording
4. Share Screens
5. Whiteboard
6. Annotation
7. Shared Notes
8. File Transfer
9. Emoticons (face emojis to show levels of individual content understanding)
10. Presentation Tools (Slides)
11. Polling

BBB and Zoom Only:

1. Breakout Rooms

MS Teams Only:

1. Microsoft 365 integrations
2. Together mode – Shows everyone in the meeting together in a single picture, not as individual squares

Conferencing tools can also be appropriate for summative assessments. These digital spaces can have an incredible array of tools and communication channels that can be used to demonstrate learning outcomes. Conferencing tools can be an appropriate forum for student-led sessions, presentations, debates, and discussions that demonstrate the knowledge and skills required to meet the learning outcomes.

Conferencing tools may provide analytics that can indicate how students engaged during class by using the chat and shared notes. This can provide insight into content understanding, but also as a means of evaluating the effectiveness of

communication channels for all students. For example, when assessing participation, consider basing these on student self-evaluations and using strategies such as asynchronous learner contributions and reflections. Assessing online course **contribution** and ***subsequent learning*** can be an effective strategy; nevertheless, assessing ***attention*** through the monitoring of webcams is not an accurate measurement of learner contribution or learning!

Links:

- [How to create a Kaltura Video Quiz](#)
- [Integrate a Kaltura Video Quiz into Moodle Gradebook](#)

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6 Key Considerations: Conferencing Tools for Assessment

Assessment is an incredibly important part of learning, here are some tips when using conferencing tools for assessment

1 Focus on the Learning Outcomes

Ensure assessments are aligned to the course/program learning outcomes & are designed to measure student achievement of those identified learning outcomes

2 Use for Formative & Summative Assessment

Conferencing tools can be used to assess and identify gaps in knowledge & features like screen-sharing can make it possible to assess student led presentations & sessions

3 Provide Feedback

Polling, emojis, shared notes and chat features can be used in conferencing spaces to provide and receive immediate feedback

4 Do Not Assess Webcam Participation

Assessing online course contribution and subsequent learning can be an effective strategy; nevertheless, assessing attention through the monitoring of webcams is not an accurate measurement of learner contribution or learning!

5 Do provide Resources to Students

The KPU Learning Centre and IT dept have many resources and supports for KPU conferencing tools. Set students up for success by providing access to these supports and resources

6 Be Explicit with Guidelines & Criteria

Explain the assessment criteria as clearly as possible. Providing clear guidelines supports students in achieving the course learning outcomes and can lower stress & anxiety

For more information on using conferencing tools for assessment and to partner for assessment redesign, contact the KPU Teaching and Learning Commons: Teaching.andLearningcommons@kpu.ca

KPU | Teaching & Learning Commons

Infographic: Conferencing tools for assessement

References:

Dukewich, K. (2020). Learning Outcomes and Alignment [Video]. https://kputlcommons.freshdesk.com/support/solutions/articles/43000519790-video-learning-outcomes-alignment

McCarthy, J. (2015). Evaluating written, audio and video feedback in higher education summative assessment tasks. *Issues in Educational Research, 25*(2). http://www.iier.org.au/iier25/mccarthy.pdf

10. Suggested activities using KPU's supported conferencing tools

This chapter provides two suggested instructional activities for each of the conferencing tools KPU supports. These tools can support many strategies to help students meet course and program learning outcomes.

Please note that resources should be provided for using the chosen conferencing tool for all suggested instructional activities. Ideally, students should be introduced to the chosen conferencing space before engaging in the activity (a practice session), so they can test their equipment, webcams and microphones.

All of the suggested instructional activities in this chapter have been adapted from and inspired by resources in KPU's knowledge base, and the Open Educational Resources referenced at the bottom of this page.

The following instructional activities are included in this chapter:

Platform	Activity 1	Activity 2
BigBlueButton	Small group discussions	Collaborative brainstorming
Microsoft Teams	Student presentations	Socratic dialogue
Zoom	Case studies	Debates

BigBlueButton

Small group discussions

Description: Peer to peer discussions can deepen learning, broaden perspectives, and generate new ideas. Breakout rooms in BigBlueButton afford the ability to create small groups and provide spaces for these focussed conversations.

Participation: Group

Features required:

- Main Room
- Public Chat
- Whiteboard
- Breakout Rooms
- Shared Notes
- Microphone

Formative Assessment:

What do students already know before entering the BigBlueButton space? Students will need at least some foundational knowledge of the content before beginning this activity. Instructors can host a large group discussion at the beginning of the session in the **main room** to reinforce the key points. Ask students to use the **public chat** to pose comments and questions, use this opportunity to fill in any gaps.

Breakout Group Set-up and Discussion:

Provide the question or statement that students should discuss. This can be displayed in the **main room** on the **whiteboard** through text or by uploading a PowerPoint slide onto the **whiteboard** area. Groups can be given different questions if the objective is to discuss multiple topics. Once the students know their question or statement, let them know your expectations; for example, how long will you break them into separate spaces to discuss the topic? How many members will be assigned to a group? Will this be a randomized activity, or are students placed into groups by the instructor? Make students aware of the expectations of their participation. Being explicit with instructions in online spaces is vital to student engagement. Break students into their discussion groups and ask each group to assign a note-taker and a timekeeper to not lose track of time and come back to the main space with key discussion points for the large group post discussion.

Post-breakout Discussion: Checking for Understanding

When breakout sessions end, ask the group note-takers to share their key points in the **shared notes** space and summarize the key points through the **microphone feature**. Let all students know that they can use the **public chat** to ask questions and type comments about the topic. Dynamic small group discussions can usually be determined through students' chat during this portion of the activity. Take time to identify misconceptions, gaps in understanding and highlight key points connected to the course material. Export the shared notes and distribute to students for post-session reflection and study

Collaborative Brainstorming

Description: Students collaborate and share ideas freely to solve problems, reach collective goals, and identify common course themes or concepts. This synchronous activity can deepen learning experiences by exposing students to multiple perspectives.

Participation: Group

Features required:

- Main Room
- Public chat
- Whiteboard
- Breakout Rooms
- Shared Notes

Formative Assessment:

What do students already know before entering the BigBlueButton space? Students will need at least some foundational knowledge of the content before beginning this activity. Instructors can host a large group discussion at the beginning of the session in the **main room** to reinforce the key points. Ask students to use the **public chat** to pose comments and questions, use this opportunity to fill in any gaps.

Collaborative Brainstorming set-up and discussion:

Provide the problem or concept that students should dissect, discuss, and generate ideas about. This can be displayed in the **main room** on the **whiteboard** through text or by uploading a PowerPoint slide onto the **whiteboard** area. Once the students know their problem or concept, let them know your expectations; for example, how long will you break them into separate spaces for a brainstorm? How many members will be assigned to a group? Will this be a randomized activity, or are students placed into groups by the instructor? Inform students of the expectations of their participation. Being explicit with instructions in online spaces is vital to student engagement.

Break students into their brainstorming groups and ask each group to capture their ideas in the **breakout room's shared notes** and export them before their session closes (1min remaining is recommended).

Post-breakout Brainstorming: Checking for Understanding

When the **breakout rooms** close and students arrive back into the **main room**, ask groups to copy/paste their notes into the **main room's shared notes** space (They can still retain their separate notes if needing these for a group project)

Let all students know that they can use the **public chat** to ask questions and type comments about the generated ideas, solutions, and themes. Dynamic small group discussions can usually be determined through students' chat during this portion of the activity. Take time to identify themes, comment on ideas and solutions, identify misconceptions, gaps in understanding and highlight key points connected to the course material. Export the shared notes and distribute to students for post-session reflection and study

Microsoft Teams

Student Presentations

Description: Student presentations allow students to demonstrate their knowledge and skills. Cohorts can meet synchronously in Microsoft Teams with small or large groups. Internal and external guests can join via a unique meeting link generated when the meeting time is created.

Participation: Group or Individual

Features required:

- Main Room
- Microphones (optional)
- Public chat (optional)
- Raised hand icon (optional)
- Share Tray (Share-screen Icon – optional)

Student presentations set-up:

Prepare a presentation schedule and make it available to students. Ensure that students are clear about your expectations; for example, how long are the presentations? What time should they arrive at the space? (recommend at least 5 mins early as not to disrupt the presentation), who will introduce the presenters? Manage incoming guests? Inform students of the expectations of their participation and about being a good audience member. Let students know the level of participation expected as an audience member and how questions and comments during the presentation should be contributed, for example, using the public chat feature or raised hand icon are a couple of methods, and asking audience members to hold thoughts until the end of the presentation is another. Being explicit with instructions in online spaces is vital to student engagement and participation.

Students can open a PowerPoint, download a file, or navigate a website on their device and use the **share tray** to share their screen and present it to the audience.

Post-presentation

When the presentation has ended, encourage students to share their comments and questions in the public chat or on microphones and allow the presenter(s) to address them. Take time to identify themes, comment on ideas and address any misconceptions or gaps in understanding connected to the presentation material.

Socratic Dialogue

Description: Socratic dialogue is an approach to questioning that can be used as an effective method to explore in-depth concepts and to challenge assumptions. The Greek philosopher Socrates, postulated that the disciplined practice of thoughtful questioning enabled students to examine and validate or dispel concepts and ideas. Socratic dialogue can be used to promote deeper thinking and the development of reflective practices

Participation: Group

Features required:

- Main Room
- Public chat

Formative Assessment:

What do students already know before entering the BigBlueButton space? Students will need at least some foundational knowledge of the content before beginning this activity. Instructors can host a large group discussion at the beginning of the session in the main room to reinforce the key points. Ask students to use the public chat to pose comments and questions, use this opportunity to fill in any gaps.

Socratic dialogue set-up and format (Grant, 2007, p.2):

Plan significant questions that provide meaning and direction to the dialogue

Use wait time: Allow at least thirty seconds for students to respond

Follow up on students' responses

Ask probing questions

Periodically summarize in writing key points that have been discussed

Draw as many students as possible into the discussion

Let students discover knowledge on their own through the probing questions the teacher poses

Grant (2007) provided a sample dialogue to highlight this method (p. 3):

Teacher: What is happening to our global climate?

Stan: It's getting warmer.

Teacher: How do you know it's getting warmer? What evidence do you have to support your answer?

Stan: It's in the news all the time. They are always saying that it's not as cold as it used to be. We have all these record heat days.

Teacher: Has anyone else heard of this kind of news?

Denise: Yeah. I have read about it in the newspaper. They call it global warming, I think.

Teacher: Are you saying that you learned about global warming from newscasters? Are you assuming they know that global warming is occurring?

Heidi: I heard it too. It's terrible. The ice caps in the Arctic are melting. The animals are losing their homes. I think the newscasters hear it from the scientists that are studying the issue.

Teacher: If that is the case and the scientists are telling the newscasters, how do the scientists know?

Chris: They have instruments to measure climate. They conduct research that measures the Earth's temperature.

Teacher: How long do you think scientists have been doing this?

Grant: Probably 100 years.

Candace: Maybe a little more than that.

Teacher: Actually, it's been studied for about 140 years. Since about 1860.

Heidi: We were close.

Teacher: Yes. How did you know that?

Grant: I just figured that seems like when instruments were available, and scientists had the means to measure climate like that.

Teacher: Okay. Let's take a minute to review what we've discussed so far.

Post-breakout sharing and reflection: Checking for Understanding

When the dialogue winds to a close ask students to contribute final thoughts in the public chat space and use this as an opportunity to highlight key takeaways and identify any muddy points

References:

Grant, M. (2007). The Socratic Questioning Technique. Designing effective projects, Intel Corporation.https://www.intel.com/content/dam/www/program/education/us/en/documents/project-design/strategies/dep-question-socratic.pdf

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Zoom

Case Studies

Description: Case studies can be used to illustrate the application of a course concept to real-life situations. Students work together to formulate a response to the provided scenario with a solution that would be reasonable based on their previous theoretical knowledge of similar situations or conditions presented in the case study. Case studies can provide a deeper understanding of decisional consequences.

Participation: Group (synchronous) Individual (providing the case study prior)

Features required:

- Main Room
- Public chat
- Breakout Rooms
- Shared Notes

Formative Assessment:

What do students already know before entering the BigBlueButton space? Students will need at least some foundational knowledge of the content before beginning this activity. Instructors can host a large group discussion at the beginning of the session in the **main room** to reinforce the key points. Ask students to use the **public chat** to pose comments and questions, use this opportunity to fill in any gaps.

Case studies activity set-up and discussion:

Present case studies or instructions to the students and provide an overview of the specific deliverables they are tasked with, such as what components must be addressed or what questions must be answered – direct the focus to the case study's essential aspects and make it explicit. In higher-level courses or courses using a case study as a more extensive assignment or project, instructions and access to the case study may be required to be presented days, or weeks, before engaging in this activity.

Once the students are aware of the task at hand, let them know your expectations; for example, how long will you break them into separate spaces for the case study examination and discussion? How many members will be assigned to a group? Will the case study be given to the groups, or will the groups be allowed to select or construct a scenario? Inform students of the expectations of their participation. Being explicit with instructions in online spaces is vital to student engagement.

Break students into their case study groups and ask each group to capture their ideas in the **breakout room's shared notes** and export them before their session closes (1min remaining is recommended).

Post-breakout sharing and reflection: Checking for Understanding

When the **breakout rooms** close and students arrive back into the **main room**, ask groups to copy/paste their solutions and ideas into the **main room's shared notes** space (They can still retain their separate notes if needing these for a group project)

Let all students know that they can use the **public chat** to ask questions and type comments about the generated ideas, solutions, and themes. Dynamic small group discussions can usually be determined through students' chat during this portion of the activity. Take time to identify themes, comment on ideas and solutions, identify misconceptions, gaps in understanding and highlight key points connected to the course material. This is an excellent opportunity to explore decisional consequences and to explore alternate solutions with the entire group collectively. Export the **shared notes** and distribute to students for post-session reflection and study

Debates

Description: Debates can foster communication and critical thinking skills, and exposure to multiple viewpoints, evidence, and opinion can provide students with new opportunities to construct new knowledge and can be an engaging and active, learner-centred activity.

Participation: Groups

Features required:

- Main Room
- Public chat
- Breakout rooms
- Whiteboard
- Recording feature

Formative Assessment:

What do students already know before entering the Zoom space? Students will need at least some foundational knowledge of the content before beginning this activity. Instructors can host a large group discussion at the beginning of the session in the main room to reinforce the key points. Ask students to use the public chat to pose comments and questions, use this opportunity to fill in any gaps.

Debate:

Students will need to be divided into three groups: Pro/Affirmative, Con/Negative, and the Debate Judges. Depending on the debate teams' desired size, you may want to host several sessions with different groups and replicate this activity.

Provide a topic statement to debate, for example: "be it resolved that climate change is the biggest threat to humanity."

Provide breakout rooms for each group and allow research time for the teams to reflect on the resolution and to prepare for the debate – this could happen weeks before the session depending on the depth expected (Note: The judging team could be identifying criteria they will use to judge the statements)

Be explicit with expectations for etiquette in the breakout rooms and the main room, such as level of formality, use of slang and emoticons in the public chat, etc. and behaviour expectations – being courteous and respectful.

Inform groups how long the debate will last and the structure for the debate. Here is a suggested structure:

After the research preparation time in the breakout rooms, all groups return to the main room. The debate opens with a member of the affirmative team presenting their arguments, followed by an opposing team member. This pattern is repeated for each team member.

Once every group member has had a chance to weigh in, you can provide time for a "scrum" where all group members can banter and counter debate points.

Judges should be taking private notes as the debate proceeds and given time post-debate to meet with their group, reflect and provide an overall summary and final decision on who has presented the strongest points (can be done on a later date or discussed post-debate in a breakout room) Once the judges have provided their thoughts, the discussion should be opened for questions, discussion and general feedback from the instructor.

Instructors should closely monitor the conversations while the debate period is open and swiftly address any behaviours or etiquette issues.

All groups, including the judges, should cite any external references during the debate and provide formal references once the discussion has closed. You may want to incorporate a reflective paper after the debate and include it in the marking structure.

Post Debate:
Export the public chat and distribute the document to students for post-session reflection and study. Provide students with the session recording when available to provide an opportunity to review and reflect on the debate points.

Open Education Resources:

1. ["Case studies" The University of British Columbia](#) – Licensed under CC by 4.0
2. ["Digital Library" United Nations Educational, Scientific, and Cultural Organization (UNESCO)](#) – Licensed under CC by 4.0 depending on resource
3. [Open resources on creating activities](#) – KPU Freshdesk
4. [Informative blog on scaffolding](#) – KPU Freshdesk

11. Resources for using KPU's conferencing tools (How to's)

Illustration of a Conferencing Space.

Click on the platform logos to access KPU's Freshdesk resources:

BigBlueButton

Microsoft Teams