Microsoft

Best practices for remote instruction

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Overview

In this guide, we will be focusing on the best teaching practices for the virtual synchronous classroom.

Virtual learning definitions

Virtual asynchronous

Asynchronous virtual learning occurs when students work independently on learning activities and assignments. Teachers provide lesson content through written, video, graphical and interactive materials. Students show what they know by completing interactive learning activities, self-assessment, formative and summative commonly delivered using a learning management system.

Virtual synchronous

Synchronous virtual learning occurs when students join an audio/video enabled meeting space at the same time. This space is greatly enhanced when the meeting space includes an interactive whiteboard, chat, and breakout rooms. This synchronous session may include whole group instruction led by the instructor and small group work amongst the students. The structure of this session is much like an in-person learning experience.

In-person

In-person learning is a typical classroom setting with students and instructor(s) driving instruction in a school.

Learning management systems

A learning management system (LMS) is used to plan, deliver, and manage the learning content for a course. Content is created in other applications and uploaded and organized within the LMS. Learning content may include documents, videos, learning activities, and assessments.

Virtual synchronous vs. in-person teaching

Virtual synchronous teaching may seem quite different from in-person teaching. Instead of thinking of virtual synchronous and in-person teaching as an apple/orange comparison, think of them more like a red apple/green apple comparison. Red apples and green apples may be used for different purposes, but they are both still apples.

Virtual synchronous teaching is simply another way to deliver instruction to students. While students may interact, complete assignments, and take assessments, the design behind virtual synchronous classroom tools is meant to mimic in-person interaction in the classroom.

Similarities

The fundamentals of teaching are still the same in a virtual synchronous classroom. Similarities include:

- **Course content** – Students will cover the same content with the same rigor and with the same performance expectations.
- **Pedagogy** – The instructional methods and questioning techniques used during in-person instruction are still used in a virtual synchronous classroom.
- **Lesson design** – Virtual synchronous lessons are still designed with similar goals in mind. Lessons should still provide a balance between teacher-centered instruction and student- centered instruction. A good example of this balance is the 'I Do – We Do – You Do' lesson structure.

- **Student engagement** – Students are still required to be active participants in the class. They will interact with the instructor(s) and other students in the course, collaborate through small group discussion and group assignments, and present information to the class. Students and teachers are still new to this form of instruction and a growth mindset is important. The focus of this document is to identify strategies to help build strategies that are effective in the classroom.

Differences

There are similarities between virtual synchronous and in-person teaching, it would be unfair to say there are no differences. Virtual synchronous instructors should be prepared to help their students with:

Additional processes – Students are new to virtual synchronous learning. It's important that instructors model patience, tenacity, and a growth mindset along the way.

Additional steps – A virtual synchronous lesson allows instructors and students to have a similar experience they would have in an in-person classroom. Creating that experience involves additional steps for both the instructor and the student. For example:

- Instructors may need to give students permission to write on the class whiteboard, spend extra time organizing and moving students to breakout rooms, or teaching students how to use tools or programs to complete their work.
- Students may find that it takes more time to submit handwritten work because they first take a picture of it. It takes more time to write out equations or formulas, or that they need to have additional equipment available and ready for use.

Presence

While there are best practices in effective virtual instruction, the most important practice is being present. Presence lets students know that they are not alone in their education journey. The instructor(s) are there to direct, guide, listen, and share expertise with them in both synchronous and asynchronous ways.

Here are suggested ways to develop a physical presence in the virtual synchronous classroom. Each of these suggestions should reflect the instructor's personality and teaching style as well as making personal connections with students.

Suggested best practice	Suggested standard
Commit to a response time for emails and submitted work.	Message responses in less than 24 hours. (Through district approved communication channels) Submitted work for less than 72 hours
Post class expectations, learning targets or objectives, and deadlines/due dates.	Once a week
Host regular class meetings for whole group instruction.	Minimum of two sessions each week

Community

Community is established in a classroom where there is a feeling of fellowship with other students and the instructor through sharing common attitudes, interests, and goals. Everyone benefits from what each person brings to a course when the instructor creates a learning environment that supports and encourages all contributions.

An instructor can build a community in their virtual synchronous learning course by:

- Playing licensed music before class starts.
- Giving students an opportunity to share personally through classroom discussion, icebreakers and team building activities and small-group discussion.
- Creating opportunities for students to share their voice and image during synchronous class meetings.

Engagement

Engagement in the virtual synchronous classroom should be active, not passive. Students process more deeply and retain more information when they are actively working with information in their lessons, not just reading texts or listening to a lecture.

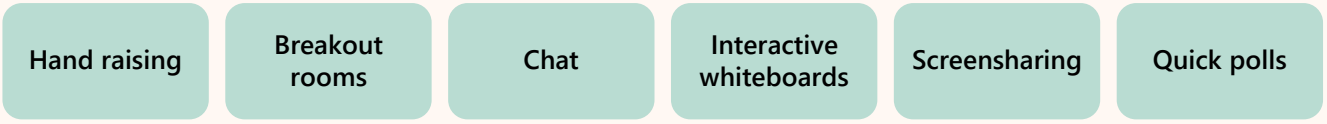
An instructor can build engagement in their virtual synchronous classroom by classroom discussion both large and small groups and creating active lessons for class meetings.

Build in opportunities for student engagement by:

- Breaking up the lesson into short mini lessons with activities and opportunities to practice.
  - Give students something to do every 2-3 slides.
- Asking questions that students respond to in the chat or on the whiteboard.
- Giving students opportunities to work in small groups.
- Using guided notes - a notetaking guide with strategically placed blanks. Students fill in the missing information as the instructor leads the lesson.
- Activities that allow students to stand up and move can help students who have been sitting for extended periods of time such as a game or activity.
- Giving students an agency when working on large projects by allowing them to choose the topic or theme of the project or activity.
- Using questioning techniques in classroom polling tools to conduct formative assessments.
- Including opportunities for volunteers to become relatable to students.

Common tools that promote engagement

There are common tools across virtual meeting software that can be leveraged to help with engagement. It's important to get to know the tool being used in the classroom and the features available.



Interactive whiteboard

During class meetings, instructors can use the whiteboard to keep students engaged in the material. Design activities that students respond to using whiteboard tools by typing or drawing. Remember that using the whiteboard will be new for most students. Offer a practice activity to give them the time and opportunity to figure out how the tools work.

Chat

One way to keep students engaged in the learning process during the lesson is to pose questions that they respond to. Students who may not raise their hand in an in-person classroom may feel more comfortable sharing a response in chat. Students can also ask questions and provide insights during the lesson. Give students time to prepare a response. Wait time is especially important in the virtual classroom. Students may have delays in video and audio feed due to equipment, network, or bandwidth limitations. Students may type or click at different speeds.

Here are two chat techniques to use in the synchronous virtual classroom environment

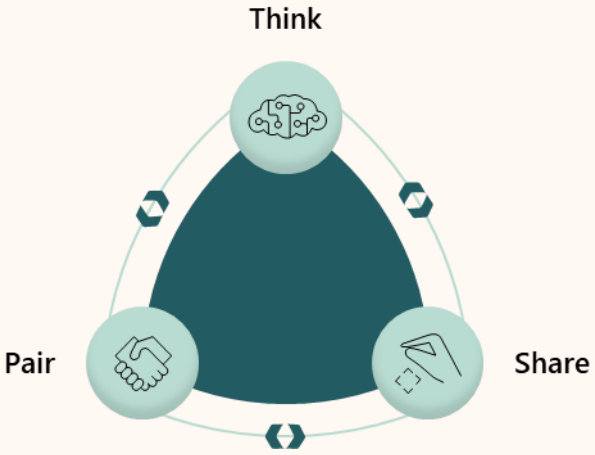
Technique: Waterfall chat

Ask a question and instruct students to type in their answer but wait before clicking send until they are instructed to. This allows students to not see each other's answers until all are shared. It will show common answers and keep students from being influenced by other's perspectives.

Breakout rooms

Small group work is a terrific way for students to collaborate with and learn from each other. Breakout rooms allow instructor(s) to easily move students to small groups and then return them back to the main room for whole class instruction. Students can see and talk with one another, use a shared whiteboard, send chat messages, and share documents and their screens. Instructors often can move from room to room making it the ideal setup for providing one-one or differentiated instruction. Using the share screen feature is a great way to walk students through an example or have students share their code to receive feedback from the instructor is a great way to work with both individual students or in small groups.

Combining tools: Think-Pair-Share example



This technique can be accomplished in a couple of ways. It can be done in a tool that allows private chats between participants or the use of breakout rooms to give students a space for discussion.

1. **Think** – Prompt the students with a question or a task. Give them time to think about and prepare a response. Silent wait time is best. Instruct students that they will be sharing with the class after they discuss their answers with their partner.
2. **Pair** – Have students share their response with a partner using breakout rooms or private chat feature. They can then discuss their responses and determining how they want to respond together to the class.
3. **Share** – Have students share the answer they came up with in pairs. Use the hand raise tool to encourage volunteers to share.

This technique has variations and adaptations. Feel empowered to change the flow of the Think-Pair-Share based on the classroom environment and content. For example, an instructor may not have them all share due to the amount of time it takes. They also may all have the same answer. Therefore, building a waterfall chat could be appropriate for students to share their answers and the rest of the class receive confirmation that there is a consensus.

Feedback

An essential part of any classroom learning experience is specific, thoughtful, and timely feedback. In virtual synchronous learning classes, feedback offers a double advantage. Not only does it give the students the information they need about their learning progress, but it also sustains their engagement in the course and classroom learning community. Feedback can come from an instructor or from their peers. Both instructors and students should use valuable feedback techniques to keep students engaged and moving forward with their learning. Here is a common strategy:

Examples of sentence starters include:

- One thing I liked was…
- One thing I would change was…
- I'd like to know about….

Tools for feedback

A common tool for giving feedback to students using shared documents. These tools give the option of leaving comments and suggestions on activities, class work and projects.

Accessibility and universal design for learning

In virtual synchronous learning classes, accessibility refers to students of all abilities to participate in the learning activities. For virtual synchronous learning, to be successful, students should have access to hardware, software, and the internet of sufficient speed and bandwidth to run the systems of the virtual synchronous learning course. Systems and materials in the virtual synchronous learning course should also be accessible for all students, including those with impairments and learning challenges. Rigorous and thoughtful review of the features of the course and its audio/video needs are required before beginning to create a virtual synchronous learning environment to ensure it will meet the needs of student populations with unique needs. Virtual synchronous learning courses should offer a variety of activities that serve all types of learning styles. Instructors should consider universal design for learning (UDL) when planning their synchronous instruction. They should work to increase access to learning by reducing physical, cognitive, intellectual, and organizational barriers to learning whenever possible. For example, virtual synchronous learning courses rely heavily on text-based presentations of information. Not all students take in information well just by reading. Consider multiple means of representation, expression, engagement in both the learning and assessment activities in the course. Schools should take all of this into consideration when deciding on the tools they will providing for students to use in a virtual synchronous classroom

Student personal identifiable information

Virtual synchronous learning offers exciting opportunities for students to learn outside of the brick-and-mortar classroom environment. While these opportunities are exciting, carefully choosing systems to run a virtual synchronous learning course that protects the student's privacy and personal data is essential. Schools ensure that the systems they use protect personal identifiable information in accordance with local policies as well as province, state, and national laws.

Class recordings

Recordings of classes held in the audio/video enabled meeting space are popular in the virtual synchronous learning. Schools will determine the policies for the recording of classroom interactions protecting student privacy based in accordance with local policies as well as province, state, and national laws.