Overview
Video conferencing is a type of online communication where two or more people engage in a live audio-visual call. With a strong internet connection, the participants can see, hear, and talk to each other in real time regardless of their location. This lesson provides an overview of teaching basic video conferencing skills.

Objectives for Adult Learners:
After participating in this lesson, adult learners will be able to:
• List different platforms that can be used for video conferencing
• Identify basic skills in video conferencing
• Apply the knowledge gained to demonstrate proficiency in basic video conferencing
• Explain proper video conferencing etiquette

Objectives for 4-H Tech Changemakers:
Before teaching this lesson, the 4-H Tech Changemakers should be able to:
• Describe the importance of checking Internet speeds before video conferencing
• Demonstrate core and advanced video conferencing skills
• Explain proper video conferencing etiquette

It is recommended for 4-H Tech Changemakers to practice these skills multiple times (using different devices, if possible) before teaching any workshop sessions.

Materials & Supplies
The following materials and supplies are needed for this lesson:
• Digital devices: computers, tablets, smartphones (activity 1, activity 2, activity 4)
• Projector/Screen (recommended) - for demonstrating technology skills
• Access to the Internet (activity 1, activity 2, activity 4)
• Video Conferencing Basics Skills handout (activity 2)
• Video Conferencing Advanced Skills handout (activity 4)

Preparation
In preparation for this lesson, facilitators should:
• Review lesson plan
• Ensure Internet connectivity at workshop location and check website links
• Gather all materials and supplies
• Copy any handouts, if needed
Lesson Implementation Ideas:
Depending on the teaching setting and amount of time you have, there are a variety of ways to implement these activities. Suggestions include:

<table>
<thead>
<tr>
<th>DELIVERY MODE</th>
<th>Face-to-Face</th>
<th>Face-to-Face</th>
<th>Face-to-Face</th>
<th>Exhibit</th>
<th>Virtually</th>
</tr>
</thead>
<tbody>
<tr>
<td>TIME</td>
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<td>1 hour</td>
<td>2-part series</td>
<td>n/a</td>
<td>1 hour</td>
</tr>
<tr>
<td>SUGGESTED ACTIVITIES</td>
<td>Activity 2 -or- Activity 3</td>
<td>Activities 1-3</td>
<td>Part 1: Activities 1-2 Part 2: Activities 3-4</td>
<td>Activity 3</td>
<td>Activities 1-3</td>
</tr>
</tbody>
</table>

Terminology:
The following terms will be discussed during the lesson:

- **Video Conferencing:** type of online communication where two or more people engage in a live audio-visual call.
- **Download speed:** A measure of how quickly data or content can be transferred to your device over the network.
- **Upload speed:** A measure of how quickly your device can upload data or content over the network.
- **Ping:** A signal sent to measure latency, or the time it takes for data to travel from a device on one network to a device on another network.

Background Information:
This lesson provides an overview of teaching basic video conferencing skills. Video conferencing is a type of online communication where two or more people engage in a live audio-visual call. With a strong internet connection, the participants can see, hear, and talk to each other in real-time regardless of location. People may use video conferencing for various reasons; examples include an employer interviewing a potential job candidate, a presentation where the audience members are in multiple locations, and a small team meeting to discuss the timeline of a collaborative project.

Depending on the platform, video conferencing platform, users may be able to show live video and audio, share the screen for viewing, chat, ask questions, transmit files, etc.

Video conferencing does require certain supplies. Depending on the budget and need, the cost of these supplies can vary greatly. Basic video conferencing supplies include …

- A stable internet connection
  - Generally, 10 mbps is the minimum speed requirement for one person video conference without interruptions. Actual speed usage will be dependent on a variety of factors, and 10 mbps is only accounting for one person performing the activity at a time. If multiple people in a household, business, etc. are all using multiple devices, greater speeds are needed.
- A device (computer, tablet, smart phone, etc.) with viewing screen
- Webcam – can be built into computer or a stand-alone resource
- Microphone/headset/speaker – can be built into computer or a stand-alone resource
- Video conferencing platform

Sometimes, a business might have a dedicated video conferencing room where high-quality supplies (cameras, large screens, audio systems) are kept for meetings. Other times, people may be joining in a video conference from their home, office, library, etc. If a person is joining from a public place, they need to ensure their audio will not distract others not participating in the call.
COMMUNICATION: VIDEO CONFERENCING (CONT.)

ACTIVITY 1: Internet Speed Test

Before video conferencing, it is important to understand internet speed. In this activity, participants will learn about internet speeds and conduct multiple speed tests to determine if their connection can support video conferencing.

Generally, 10 megabits per second (Mbps) is the minimum speed requirement for one person video conference without interruptions. Without a stable internet connection, the video could blur, audio delayed or muffled, etc. Depending on the video conferencing platform, there are features (like turning off the camera, not running background applications, etc.) to increase quality. However, doing an internet speed test is a quick and easy way to determine if you have a stable internet connection to video conference.

Many times, an internet service provider (ISP) provides a speed test program. Suggested speed test applications are:

- Speed Test
- Speedtest by Ookla
- Network Speed Test
- Internet Speed Test by Bing

Running a speed test typically provides three data points:

- **Download speed**: A measure of how quickly data or content can be transferred to your device over the network. This is measured in Mbps.
  
  » Example: Streaming an educational video about word processing

- **Upload speed**: A measure of how quickly your device can upload data or content over the network. This is measured in Mbps.
  
  » Example: Posting a resume on a job search site

- **Ping**: A signal sent to measure latency, or the time it takes for data to travel from a device on one network to a device on another network. This is measured in milliseconds.

Actual speed usage will be dependent on a variety of factors, and 10 Mbps is only accounting for one person performing the activity at a time. If multiple people in a household, business, etc. are all using multiple devices, greater speeds are needed.

Your speed test results will be accurate for that one particular moment in time. It is best to do multiple speed tests to get a better idea of your internet capabilities.

- **Multiple Connections**: Run two tests, once when the device is using wireless and once when the device is tethered. Wi-Fi connections are typically a weaker connection compared to an Ethernet cord.
- **Multiple Devices**: Run a test with just one device connected to the network and run another test with multiple devices connected to the network. The number of devices connected to your network will affect your speeds.
- **Time of Day**: Speeds can also fluctuate throughout the day. Consider running the test at multiple times throughout the day to determine if any patterns of use (peak periods, etc.) are present.

With a strong internet connection, the quality of the video conference could be altered.

ACTIVITY 2: Video Conferencing Core Competencies

There are a variety of video conferencing platforms. Examples include Zoom, Microsoft Teams, GoTo Meeting, etc. Each platform has different features, and some offer free and paid subscriptions. Generally, the paid subscription has more features and does not have time restrictions. Sometimes free accounts limit how long a meeting can take place before needing to arrange a new meeting. Depending on the situation, the users will want to choose a platform that best suits their needs.
COMMUNICATION: VIDEO CONFERENCING (CONT.)

Regardless of the video conferencing platform you use, all participants should know how to do the following core competencies:

- **Schedule a meeting**: The meeting host will need to schedule the meeting (date, time, length, etc.). The platform will create a URL for all participants to use to access the meeting.

- **Change host or assign co-hosts**: The meeting host is the primary coordinator of the meeting and will have access to all the meeting controls. The host has the ability to change host duties or they can assign co-hosts to assist. This feature is very helpful if a large meeting is taking place and multiple people may need to assist with the meeting production.

- **Turn on/off video**: Each meeting participant will have the ability to turn on/off camera that provides the live video feed. The host typically can turn off all cameras, if needed.

- **Turn on/off audio**: Each meeting participant will have the ability to turn on/off the microphone that provides the live video feed audio input. The host typically can turn off all microphones (mute feature), if needed.

- **Rename participants**: Depending on the settings, the host and/or participants can change their display name. This can be helpful if you want people to include preferred pronouns, list their agency, their state, their group number, etc.

- **Record meeting**: Most platforms allow for the meeting to be recorded, which helps for sharing afterward. Depending on the settings, the recording can be saved to the computer or to a cloud-based program. The host should also have the ability to save the chat as a text file, too.

- **Utilizing chat**: The chat feature is a small box where text communication can take place. Depending on the settings, the chat can be private (where it is only between to users) or the chat can be displayed for the entire group. The chat can allow people to respond to questions, share links, make comments, etc. The chat may also allow for files to be directly transmitted.

- **Share screen (or enable screen share)**: Depending on the type of video conference (meeting, presentation, etc.) it is likely someone will need to share their screen. Sharing screen simply means that whatever is being displayed on the person's screen (Word document, PowerPoint, etc.) all the participants are able to see it.

**NOTE**: It is recommended to demonstrate the above skills on a large screen projector. After demonstrating the skills, participants can practice the skills on their own devices. Depending on the size of the group, room arrangement, etc., participants could work gather in small groups with a 4-H Tech Changemaker to receive instruction. 4-H Tech Changemakers could also circulate around the room and provide one-on-one assistance as necessary.

Zoom Video Tutorials

Microsoft Teams Video Tutorials

**ACTIVITY 3: Video Conferencing Etiquette**

As with anything, proper behavior or etiquette is essential. Here are some things to remember when video conferencing.

**If you are hosting the meeting:**

- Before the call, send the URL to access the meeting and an agenda/purpose of the meeting. It can also be helpful to state any expectations for what needs to be achieved during the session.

- If the meeting participants need to review materials prior to the meeting or need handouts, send these files to them in advance.

- Test your video conferencing platform by double-checking your audio and visual settings before launching your meeting.
If you are a meeting participant:

- Review any materials in advance of the meeting. Be proactive and be prepared.
- Make sure your video conferencing platform operating system is up to date. Sometimes, people join meetings and realize their software needs to update. This could easily take a long time, and people will subsequently join the meeting late.
- Log in a few minutes early to the meeting to make sure your video, microphone, and sound are working properly.
- Be “camera-ready” by cleaning up around your area, improving your lighting, etc.

General tips:

- Typically, most people remain on mute during a video conference unless they are planning to share something. If a small group of people is video conferencing (example – job interview), then it is acceptable to be unmuted the entire time.
- Try to avoid distractions. Turning your phone on silent, avoid rustling papers, etc.
- Look at your camera - not on yourself. It may not feel natural at first, but looking at your face on your computer screen while you’re speaking limits eye contact and reduces feelings of engagement among other participants.
- Stick to the purpose of the meeting. Having a plan is helpful to ensure the topics are addressed. Remember that you want to be respectful of everyone’s time and accomplish the goals of the meeting.
- Virtual meetings often feel less stressful than in-person meetings, which can make it feel tempting to relax and be more causal. Remember to continue to dress appropriately, maintain proper posture and appearance, etc.

Video Conferencing Etiquette Scenarios:

If time permits, participants can be presented with different potential scenarios that could happen during a video conference and discuss proper solutions to the situation. Example scenarios include:

- Someone not on mute
  » Depending on the host settings, many times, the host can simply mute all participants. The host of the meeting can also say aloud and/or type in the chat box a reminder that participants should be on a mute unless they are speaking.
- Someone is speaking but they are muted
  » The host can quickly interrupt and announce to the speaker that they are on mute.
- Someone is off-topic
  » The host should share an agenda or meeting outline prior to the meeting. Periodically, the goals of the meeting should be reviewed. The host can kindly share that they group needs to remain on-topic.
- Someone is not attentive
  » The host can remind everyone that they should be respectful and be attentive during the meeting.

Add in other scenarios as you see fit.

ACTIVITY 4: Video Conferencing Advanced Competencies

NOTE: If participants master the core competencies outlined in activity 2, you may consider an additional session about these advanced competencies. As mentioned above, it is recommended to demonstrate the above skills on a large screen projector. After demonstrating the skills, participants can practice the skills on their own devices.

Here is a list of advanced competencies for video conferencing:

- **Spotlight/Pin Presenters:** Most video conferencing platforms have different display settings. If a lot of people are participating in the meeting, it can help spotlight or pin the presenter so the attendees can better see the speaker. This feature varies based on the platform, settings, and number of attendees.
• **Waiting Room:** If the host wants to control who attends the meeting, the waiting room feature is used to admit people into the actual virtual meeting room. This is an extra layer of security.

• **Breakout Rooms:** If people need time to work in small groups, breakout rooms can be utilized. This is great for small discussions, short tasks, etc. The host and co-host can move between the breakout rooms to check on participants, pose questions, etc. Depending on the platform, the host and co-host can assign breakout rooms manually, have the platform randomly assign them, or have the participants self-select.

• **Annotate:** Annotate allows you to draw (insert text, freehand, add shapes, etc.) on a shared screen, and Whiteboard allows you to write on a blank screen. Everyone can see these annotations.

• **Playing Music or Videos:** Music/videos can be played during the video conference by having a host/co-host share their screen and then share the audio/video. Typically, when sharing a screen, the host must be sure that their computer sound is also being shared.

• **Polls:** Polls allow for the host to have a set of multiple-choice questions for the user to respond to after they are launched within the video conferencing platform. Usually, the host has to set-up the questions/answer choices before the online meeting is launched. This requires some pre-work by the host.

• **Reactions:** Many video conferencing platforms allow for participants to “react” during a meeting using a set of pre-determined emojis – thumbs up, clapping hands, heart, etc.

**Reflection:**

While the intent is to build video conferencing skills, the facilitator needs to lead a debrief discussion at the end of the lesson. Potential debrief questions could include:

• How can video conferencing be used in different careers?
• How can you use video conferencing to connect with others?
• What are some of the important video conferencing skills to have?
• What are some considerations to remember for video conferencing etiquette?

**Connection to LinkedIn Learning:**

• **Learning Zoom Course:**
  » Collaborate more seamlessly using Zoom, the popular video conferencing tool. In this course, staff instructor Garrick Chow shows how to schedule, moderate, and participate in Zoom meetings. Garrick begins by showing how to set up your Zoom account and adjust audio and video settings. Next, he walks through joining and participating in meetings scheduled by others. Garrick covers how to use a variety of options during meetings such as adjusting views, muting your microphone, turning your video camera on and off, and sharing your screen. Finally, Garrick demonstrates how to host your own Zoom meetings, from scheduling and adjusting moderator settings to recording meetings.

  » Duration: 1 hour, 21 minutes
  » Level: Beginner

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LinkedIn Learning
COMMUNICATION: VIDEO CONFERENCING (CONT.)

• Microsoft Teams Tips & Tricks:
  » Discover how to work more efficiently with Teams, the popular collaboration app in Microsoft Office 365. In this concise, targeted course, Nick Brazzi shares tips that can help power users get even more use out of Teams. He goes over useful commands and keyboard shortcuts that can help you streamline your workflow, and explains how to use Teams as a hub to access information from different Office 365 apps, such as SharePoint and OneDrive. Plus, he demonstrates how to leverage different communication options, such as @mentions and priority notifications, and shares how to use accessibility features and special options such as voice messaging.
  » Duration: 55 minutes
  » Level: Intermediate

LinkedIn Learning
COMMUNICATION: VIDEO CONFERENCING (CONT.)

Video Conferencing Basics

Here is a list of basic skills associated with video conferencing. Remember that each platform has different layouts and features, so you are encouraged to learn about the setting specific to the video conferencing program you are using. Most platforms provide help documents, blog posts, etc. for users to learn more information.

Schedule a meeting: The meeting host will need to schedule the meeting (date, time, length, etc.). The platform will create a URL for all participants to use to access the meeting.

Change host or assign co-hosts: The meeting host is the primary coordinator of the meeting and will have access to all the meeting controls. The host has the ability to change host duties or they can assign co-hosts to assist.

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Complete the Gaining Skills with LinkedIn Learning Course to learn more about the learning opportunities provided by this resource.
Video Conferencing Advanced Skills

Here is a list of advanced skills associated with video conferencing. After mastering the basics, you may want to challenge yourself to demonstrate more features as it relates to video conferencing. Remember that each platform has different layouts and features, so you are encouraged to learn about the setting specific to the video conferencing program you are using. Most platforms provide help documents, blog posts, etc. for users to learn more information.

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