



Research-Based Strategies for Effective Remote Learning: Designing Effective Instruction for a Hybrid Model

Facilitator's Handbook

Regional Educational Laboratory Appalachia at SRI International

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How to Use the Facilitator's Handbook

This handbook provides additional information to support your facilitation of the *Research-Based Strategies for Effective Remote Learning: Designing Effective Instruction for a Hybrid Model* workshop with educators in your school or district. This handbook describes the purpose of each section of the workshop and provides the annotated agenda, summary of the key content, suggested activities, and ideas for check-ins for each workshop section. This handbook is not intended to be prescriptive. You can alter the workshop materials to better accommodate the needs of the educators you are training and the available time. The workshop begins with an overview of hybrid instruction followed by sections on alternating hybrid learning and synchronous hybrid learning. The workshop sections are organized to be delivered in one session or as a series of two or three workshops.

Materials

To support your facilitation of this workshop, the Regional Educational Laboratory (REL) Appalachia has provided the following materials:

- A **slide deck** for presenting the content and the activities. The notes section on each slide includes information you can share with educators during your training(s).
- This **facilitator's handbook** containing detailed information for use in conjunction with the slide presentation.
- One **handout** to share with participants. This handout is provided for participants who are interested in more information on the topics presented during the workshop. The handout provides a detailed summary of the research on hybrid learning that REL Appalachia consulted while preparing the workshop. The handout is in appendix A of this facilitator's handbook and should be distributed to your workshop participants in advance.
- A **sample workshop invitation** that you can distribute via email or on a flyer to encourage educators in your district to participate in the workshop. The sample workshop invitation is in appendix B of this facilitator's handbook.

Agenda overview

The *Designing Effective Instruction for a Hybrid Model* workshop is divided into three sections: an overview of hybrid learning, alternating hybrid learning, and synchronous hybrid learning. You can present these sections together or separately. Additionally, you can share these presentations as part of a larger school- or district-wide professional development session. If you present the workshop in separate sections, repeat the welcome and introductions and wrap-up and next steps sections during each session. You may also choose to allocate more time for teachers to share ideas and plan ways to implement strategies to design effective instruction for a hybrid model. An overview of the full agenda is in Table 1.

Table 1. Full workshop agenda

Agenda item	Time frame	Description	Slides
Welcome and introductions	10 minutes	Welcome participants, orient them to the online features of the videoconferencing software, and provide background information about the workshop.	1–9
Overview of hybrid learning	20 minutes	Introduce two specific models of hybrid learning and present a brief overview of research relevant to hybrid learning that was conducted prior to COVID-19. Activity: Ask participants for information about their hybrid learning models in the poll and chat. Present characteristics of effective hybrid learning. Present information about prioritizing instructional needs. Activity: Prioritizing instructional needs	10–16
Alternating hybrid learning	35 minutes	Present research on and strategies for alternating hybrid learning. Activity: Breakout group discussion Check-in: Share one idea from each breakout group discussion	17–23
Synchronous hybrid learning	35 minutes	Present research on and strategies for synchronous hybrid learning. Activity: Breakout group discussion Check-in: Share one idea from each breakout group discussion	24–29
Wrap-up and next steps	15 minutes	Recap the information provided in the workshop. Provide participants with information about the next steps.	30–35

Activity prompts and check-ins

This handbook includes suggested activity prompts and check-ins; however, we encourage you to select the activities you think will work best with the educators in your community. You can also develop your own activities to model other ways to design effective instruction for a hybrid model that may be more relevant to your district. We encourage you to incorporate activities to keep participants engaged in the workshop. Moreover, the activities provide the opportunity to model how the strategies you present might be used with students. If you have time or prefer to include other activities, here are some ideas in addition to those described in the agenda:

- Describe one challenge, one success, and one new strategy you want to try related to hybrid learning.
- Help participants recognize and let go of factors that limit their success by using a three-step process.¹ This process asks participants to:
 1. “Make a list of all you can do to make sure that you achieve the worst result imaginable with respect to your top strategy or objective.
 2. Go down this list item by item and ask yourselves, ‘Is there anything that we are currently doing that in any way, shape, or form resembles this item?’ Be brutally honest to make a second list of all your counterproductive activities/programs/procedures.
 3. Go through the items on your second list and decide what first steps will help you stop what you know creates undesirable results?”
- Work smarter: Share your experiences about what has and has not worked for you, and why. What pitfalls have you discovered that others might do well to avoid?

At the end of these activities, open the discussion for participants to ask their peers follow-up questions.

¹ From www.liberatingstructures.com/6-making-space-with-triz/

When using small groups, ask the groups to assign a facilitator. This serves as an engagement strategy as well as an example of how to structure online conversations for students. The facilitator can help ensure a smooth discussion (for example, facilitating introductions, calling on participants, and answering questions). Consider creative ways to assign a facilitator (for example, the person with the most recent birthday) to make this process easier and help participants to get to know each other. The notes in the slide presentation provide examples of how to select a facilitator and to reassure participants that being a facilitator is voluntary.

We also encourage the use of participant check-ins throughout the workshops to engage with participants and be responsive to their learning needs. Polling and the chat box are great tools to use for check-ins. We have included specific check-in activities throughout the workshop materials. If you have time or prefer to include more check-ins, here are some additional check-in questions:

- What are the three most interesting, controversial, or resonant ideas you have heard so far?
- What frustrates and confuses you about providing hybrid instruction? Why?
- What surprises you about the information we are discussing?
- What are three new things you learned, two strategies you can apply to your teaching, and one question you still have?
- What would you tell a colleague about how to improve how they provide hybrid instruction?

Format

This workshop is designed to be delivered remotely using some of the common features of videoconferencing software (for example, breakout rooms, polls, chat box). However, the workshop can be modified to be held in person. For example, use small groups instead of breakout rooms and poster paper instead of the chat box. When modeling activities, be more explicit about how they would work in a remote setting since that aspect will not be as clear in an in-person setting.

The train-the-trainer workshop was designed to use the features available in Zoom; however, the workshop can be delivered using other videoconferencing software (for example, Google Meet). You may need to modify the workshop if the platform does not support the suggested features, such as breakout rooms or polls. Be sure to figure out in advance how to use any of the features (for example, breakout rooms, polling, chat box) you need for the activities and check-ins with your videoconferencing platform. If your videoconferencing software does not have built-in features for breakout rooms and polls, appendix C provides some suggestions for how to implement these components into the workshop.

Welcome and Introductions

Purpose

This section welcomes participants and provides important background information about the workshop. In this section, discuss the online format and any specific features of your videoconferencing software, share the agenda, and introduce the facilitators and participants. If you present the workshop as two or three separate sessions, repeat this section each time.

Duration: 10 minutes

Slides: 1–9

Table 2. Welcome and introductions annotated agenda

Agenda item	Description	Slides
Welcome and orientation (5 minutes)	Welcome participants and orient them to the online features of the videoconferencing software (such as breakout rooms and the chat box).	1–4
Background information (5 minutes)	Share the agenda and introduce the facilitator(s) (remember to replace the facilitator photos on slide 7). Model a short introduction that cultivates social presence.	5–9

Introductions

During the introduction, you can model an emotional engagement strategy that educators can replicate with their students. Research suggests that one way to promote emotional engagement is to cultivate social presence. You can cultivate social presence when you offer clues to your history, personality, and current circumstances. When you experience the social presence of another person, it feels like you are engaging in human-to-human interaction, rather than human-to-machine interaction, and it sets the stage for you to build relationships (Dixon, 2010; Kehrwald, 2008). One way to cultivate social presence is to introduce yourself in an interesting way: for example, a favorite quote, some good advice you heard recently, or the reason you like your work. During this introduction, provide participants with an opportunity to introduce themselves to each other and the facilitators. If your group is small, have participants share aloud. If the group is large, ask participants to share in the chat box.

Overview of Hybrid Learning

Purpose

This section presents two common models of hybrid learning used during the COVID-19 pandemic and provides a brief overview of research relevant to hybrid learning that was conducted prior to the pandemic. It also shares some best practices that can be effective no matter what model of hybrid learning teachers use. This section includes two activities to engage participants, learn more about participants, and assess their understanding.

Duration: 20 minutes

Slides: 10–16

Table 3. Overview of hybrid learning annotated agenda

Agenda item	Description	Slides
Hybrid learning during COVID-19 pandemic (3 minutes)	Introduce two specific models for hybrid learning that are being used during COVID-19 and will be the focus of this workshop.	10–11
Check-in: hybrid learning models (3 minutes)	Using a poll, ask participants which model they are using in their school. Ask participants to share one thing that is challenging about the model they are using in the chat.	12
Hybrid learning research before COVID-19 (3 minutes)	Provide a brief overview of research about hybrid learning that was conducted prior to COVID-19.	13
Characteristics of effective hybrid learning (3 minutes)	Present research about characteristics that can contribute to the effectiveness of either model of hybrid learning. Reference Handout 1.	14
Prioritizing instructional needs (3 minutes)	Present guiding questions to help educators prioritize instructional needs in either model of hybrid learning. Reference Handout 1.	15
Activity: prioritizing instructional needs (5 minutes)	Present a think aloud activity about how to prioritize instructional needs. Using the poll, ask participants to rate the lesson on a five-point scale. Ask participants to list any improvements or revisions they would suggest in the chat.	16

Hybrid learning during COVID-19 pandemic

This part of the workshop describes two models for K–12 hybrid learning that are prevalent during the COVID-19 pandemic: alternating hybrid learning and synchronous hybrid learning.

- ***Alternating hybrid learning*** is a model of instruction in which teachers are teaching students in-person on some days and teaching students remotely on other days.
- ***Synchronous hybrid learning*** is a model of instruction in which teachers teach both in-person students and remote students simultaneously.

These two models will be the focus of the next sections of the workshop. It is important to recognize that these models were imposed upon your educators and their students as a consequence of the pandemic and were not necessarily selected in response to the needs of learners under normal conditions. You can explain that the hope for the workshop is to help your educators understand what the research says about how hybrid learning can be effective, in hopes this information will help them work within the confines of the current situation.

Check-in

This suggested activity is two-fold. The first part of this check-in allows you to find out what types of hybrid learning models your participants are using in their schools. Using the poll feature, ask participants “Which model are you using in your school?” Provide these response options in the poll: alternating hybrid, synchronous hybrid, both, or something else. The second part of this activity provides participants a chance to reflect on their experiences with their hybrid learning models. Using the chat feature, ask participants to share “What is one thing that is challenging about the model you are using?” As time allows, share some of these responses aloud with the group.

Hybrid learning research before COVID

There is very limited research about the two models of K–12 hybrid learning discussed in this workshop (alternating hybrid learning and synchronous hybrid learning). This workshop

draws on research conducted before the COVID-19 pandemic. Though some of this research took place in the K–12 setting, much of this research was conducted in higher education settings.

Characteristics of effective hybrid learning

This section of the workshop presents research about five characteristics of effective hybrid learning: high expectations, commitment to achieving equitable outcomes, competency-based, valuing all learners, and a focus on social presence. These characteristics can support your participants' efforts to provide effective hybrid learning no matter the model they are currently using. You can direct participants to Handout 1 in appendix A for the research about these characteristics.

Prioritizing instructional needs

With hybrid learning, there is an even greater emphasis to home in on the instructional needs that will best serve students and to trim away activities that do not directly lead to essential outcomes, especially since one of the challenges facing educators is less time to work with students. This section briefly notes there are a variety of curriculum design models that can help educators organize instruction in this way, such as Universal Design for Learning, Constructivism, Competency-Based Education, and Authentic Learning. We present the following four guiding questions teachers can ask themselves when designing instruction:

- What essential knowledge and skills do you want students to acquire?
- What experiences do they need to acquire that knowledge and those skills?
- How can those experiences be provided in a hybrid learning model?
- How will you assess student learning?

Three of these questions may be ones that teachers ask themselves when designing any instruction. The third question is focused on hybrid learning. Additional information about each of these models and prioritizing instructional needs is presented in Handout 1 in appendix A.

Activity

The purpose of this suggested activity is to model how participants can apply the information presented on prioritizing instructional needs to an actual lesson. This activity is designed as a think aloud where you will describe the process of designing a new lesson that aligns to a specific standard. In this example, the Tennessee standard is “SSP.06: Develop a geographic awareness by: Analyzing interaction between humans and the physical environment.” Ask and answer the following questions aloud:

- What essential things do I want students to know and be able to do?
- What experiences do they need to acquire that knowledge and skill?
- How can those experiences be provided in a hybrid instructional model?
- How will I assess student learning?

Solicit reactions from your participants as you go through this process. Using the poll, you can ask participants to rate how effective they think your lesson plan is on a scale from one (*ineffective*) to five (*very effective*).

After completing your think aloud, ask participants to list in the chat any improvements or revisions they would suggest. You can also choose a different standard and develop your own lesson to model for this activity.

Alternating Hybrid Learning

Purpose

This section presents research related to the alternating hybrid learning model and then details strategies for educators to better use this model with their students. This section includes an activity and check-in to engage participants and assess their understanding.

Duration: 35 minutes

Slides: 17–23

Table 4. Alternating hybrid learning annotated agenda

Agenda item	Description	Slides
How to structure in-person time (8 minutes)	Present research on how to structure in-person class time. Present the flipped classroom model and how to implement it as an example of this research in practice. Ask participants to respond to the following two questions about the flipped classroom model in the chat: How might this concept work for you with your students? Are there things that students can do on their own so that when they meet together with you they are prepared to apply knowledge they gained independently? Reference Handout 1.	17–20
How to structure asynchronous learning time (2 minutes)	Present the research on how to structure asynchronous learning time. Reference Handout 1.	21
Activity (20 minutes)	In breakout groups, ask participants to share their opinions about the best way to use in-person time in an alternating hybrid model and then share the methods they have used to effectively structure their independent work time.	22
Check-in (5 minutes)	Ask one representative from each breakout room in the previous activity to share out one response to each of the discussion questions with the whole group.	23

How to structure in-person time

This section presents research that suggests prioritizing more interactive activities during in-person time. This can include opportunities for peer-to-peer interaction, such as small group activities or opportunities for direct teacher-student interaction and feedback. Next, this part of the workshop presents information about the flipped classroom model to serve an example of how to use in-person time for interactivity. The flipped classroom model has students engage with the instructional material before the class and then educators use the classroom for students to apply the material they have learned. It also presents the research about implementing the flipped classroom model. It should be noted that the flipped classroom model may be more appropriate for older students. You can direct participants to Handout 1 in appendix A for additional research about this topic. After presenting the flipped classrooms model, ask participants to respond to the following questions in the chat:

- How might this concept work for you with your students?
- Are there things that students can do on their own so that when they meet together with you they are prepared to apply knowledge they gained independently?

How to structure asynchronous learning time

The next part of the presentation shares research on how to structure asynchronous learning time in the opposite way, where in-person time is used to introduce new concepts and asynchronous time is used for students to complete assignments independently to learn more and apply their knowledge. It presents ideas about what students might do during asynchronous times (such as collecting data or evidence, completing additional reading, and engaging with interactive materials). You can direct participants to Handout 1 in appendix A for additional research about this topic.

Activity

This suggested activity provides participants with the opportunity to discuss two questions in small groups and reflect on the information presented about alternating hybrid learning. Using breakout rooms, ask participants to discuss the following questions in their small groups:

- What do you think is the best way to use in-person time in an alternating hybrid model?
- What methods can be used to effectively structure students' independent work time?

Each small group will need to designate a facilitator and a reporter by, for example, asking the small group who has the most and the fewest first cousins and if they are willing to act as the facilitator and reporter. It is important to provide a clear explanation of this activity, the process for selecting a facilitator and reporter, and their roles before breaking into small groups to ensure participants understand the task at hand. The facilitator's job will be to ask everyone to introduce themselves and help the conversation along. The reporter should prepare to share one answer to each of the questions for when everyone returns to the full group.

Check-in

Following the breakout room activities, ask one participant from each small group to share one response to each of the discussion questions with the whole group. This will help you assess participants' learning and understanding and promote idea sharing across all your participants. Participants can pass if the idea they were going to mention what was already shared.

This is also an opportunity to address any questions or issues using the chat box. You can direct participants to mark their questions with "Q:" at the beginning to help differentiate their responses to the prompt from their questions about the section. Review the responses and any questions or concerns that have been posted in the chat. If possible, adjust the workshop pace accordingly (for example, proceed more quickly if there is a high-level of understanding or spend more time answering questions or plan additional follow-up if understanding is low).

Synchronous Hybrid Learning

Purpose

This section presents research about synchronous hybrid learning and details strategies educators can use to establish connectedness and ensure smooth communication during synchronous hybrid learning. This section includes an activity and a check-in designed to engage participants and assess their understanding.

Duration: 35 minutes

Slides: 24–29

Table 5. Synchronous hybrid learning annotated agenda

Agenda item	Description	Slides
Strategies for synchronous hybrid learning (10 minutes)	Present strategies to help educators establish connectedness and ensure smooth communication in a synchronous hybrid learning model. Reference Handout 1.	24–27
Activity (20 minutes)	In breakout groups, ask participants to discuss how they might establish connectedness and communication with and between all students and how they can effectively manage group work in a synchronous hybrid setting. Additionally, ask participants to discuss strategies that can promote engagement during teacher-led activities.	28
Check-in (5 minutes)	Ask one representative from each breakout room in the previous activity to share out one response to each of the discussion questions with the whole group.	29

Strategies for synchronous hybrid learning

Research identified two key areas—connectedness and communication—that can contribute to the success of synchronous hybrid learning. This part of the workshop first presents strategies to establish connectedness among online students and between online and in-person students, including using small groups, curated technologies, and inclusive language. It then presents strategies to ensure smooth communication, including balanced attention between online and in-

person students, good audio quality, and tailored activities. Further details about these strategies are presented in Handout 1 of appendix A.

Activity

This suggested activity provides participants with the opportunity to make connections between what they have already done to create connectedness and foster communication in their classrooms and what they can do in the future. Participants will also brainstorm ways to design effective synchronous hybrid lessons with other educators.

Each small group will need to designate a facilitator and reporter by, for example, asking the small group who has had the most and the fewest pets in their lifetime, and if they are willing to act as the facilitator and reporter. It is important to provide a clear explanation of this activity, the process for selecting a facilitator and reporter, and their roles before breaking into small groups to ensure participants understand the task at hand. The facilitator's job will be to ask everyone to introduce themselves and to help the conversation along. The reporter should prepare to share an answer to one of the discussion questions when everyone returns to the full group.

Check-in

Following the breakout room activities, ask the recorder from each small group to share a response to one of the discussion questions with the whole group. This will help you assess participants' learning and understanding, and promote the sharing of ideas. Participants can pass if the idea they were going to mention was already shared. If there is time after each recorder has shared one idea, you may want to open it up to the rest of the group to share additional ideas.

This is also an opportunity to address any questions or issues using the chat box. You can direct participants to mark their questions with "Q:" at the beginning to help differentiate their responses to the prompt from their questions about the section. Review the responses and any questions or concerns that have been posted in the chat. If possible, adjust the workshop pace accordingly (for example, proceed more quickly if there is a high-level of understanding or spend more time answering questions or plan additional follow-up if understanding is low).

Wrap-up and Next Steps

Purpose

This section concludes the workshop. It provides information about the next steps for participants. If you are presenting the workshop in two or three sessions, repeat this section each time.

Duration: 15 minutes

Slides: 30–35

Table 7. Wrap up and next steps annotated agenda

Agenda item	Description	Slides
Recap (5 minutes)	Present a recap of the information presented in the workshop.	30–31
Closing (9 minutes)	Provide participants with information about logistics for any upcoming workshops, contact information for people they can reach out to with questions, and your level of availability to engage further on the topic. Be sure to thank participants for their time and participation. You can also take time to have participants complete a feedback form.	32–33
References (1 minute)	Provide participants with a list of references cited in the presentation.	34–35

Recap

Briefly present an overview of the information you presented in the workshop. If you presented this workshop in two or three sessions, revise the slide to focus on whatever sections you presented.

Best Practices in Facilitation

Thus far, this handbook has presented the content to facilitate the workshop on hybrid learning. If you need additional support facilitating adult learning online, here are some additional tips.²

Preparing for the workshop

The following tips can help you better prepare for your workshop.

Recruitment and logistics

To prepare for your workshop, you may want to do the following:

- Create promotional documents to inform targeted audiences about the workshop (see appendix B for an example).
- Develop a registration process that enables participants to sign up for the workshop.
- Compile a list of registrants.
- Familiarize yourself with the features of the videoconference software.
- Locate any required passwords (for example, Wi-Fi, videoconferencing code).
- Identify the name of a person who can help with videoconferencing call set-up and/or technical issues.

Consider your participants

As you prepare your presentation, spend some time thinking about your participants and how your presentation can best meet their needs. Find out as much as you can about who will be attending the workshop and use this information to inform group configurations and activities.

² This section was adapted from *KIDS Data Use Workshop: Facilitator's Guide* (REL Midwest, 2018).
<https://ies.ed.gov/ncee/edlabs/regions/midwest/pdf/eventhandout/KIDS-Facilitator-Guide-508.pdf>

Consider ways to explicitly link the information you will be presenting with participants' experiences and accomplishments. Who will be missing? Notice who is not planning to attend and how that might impact the workshop. For example, if no administrators have registered, make sure you have a plan for responding to questions directed toward leadership.

Handling difficult situations

The following tips can help you handle difficult situations.

Ground rules

The way you begin the workshop and set the tone will go a long way toward preventing difficult situations. Here are some common ground rules you might want to establish with the participants:

- Turn off the ringer on your cell phone.
- Feel free to leave the workshop if you need to use the restrooms, take a call, etc.
- Participate and allow every voice to be heard.
- Ask clarifying questions at any time.
- Use “Q:” in front of questions in the chat to help the facilitators quickly see your questions.
- Use a “parking lot” for questions that can be addressed later.
- Honor time limits; return from breaks on time.

If you have concerns about group dynamics, think you will be pressed for time, or have other worries, you *may* want to set more particular ground rules, such as:

- Confidential issues will not be shared with anyone who is not in attendance.
- If you are a person who participates often, leave space for others to respond, too. If you usually wait to share, jump in!
- Put aside your feelings about [a controversial issue] during this workshop and focus on thinking about what you can learn that will help you meet students' needs.

- Please hold all questions until the end of the presentation.

You can stop a presentation at any time and add ground rules as needed. For example, if responding to questions is taking you off track, you can say something like, “I think we need a new ground rule. Let’s hold all questions until the end of the presentation because I hope to answer many of them along the way.” Despite setting ground rules, there may still be some tricky situations, disruptions, failure of equipment or supplies, or an environmental issue that makes things difficult. Below are some additional tips and techniques for handling difficult situations. You can also return to this list after you deliver the workshop for ideas about how you might have managed a difficult situation differently.

People

There may be participants who talk too much, do not participate, are chatty and distracting, are argumentative, or are upset. It is important to manage these challenges quickly and respectfully so that the workshop stays on-track. No matter what you do, you should be professional, polite, patient, and kind when interacting with participants. The tactics listed below are not an exhaustive list of strategies, but they may be useful to consider as a starting point.

- **Consider why the person may be disrupting the workshop before deciding how to react.** For example, is a person overly talkative because they are enthusiastic about the topic or because they feel that they have knowledge that they want to share? Are they being conscious of other participants’ needs? The reason for the behavior determines whether you should channel their enthusiasm, acknowledge and draw on their expertise, or say something like, “Let’s hear from someone on this side of the room,” or “Let’s take a minute for everyone to write down their thoughts on the topic before we move on.” Rarely do people intend to be disruptive, so it is important not to shut the person down completely.
- **Consider whether an intervention is necessary.** If the disruption is minor, stepping in might be an even greater disruption. You may decide to ignore the disruption once or twice until it becomes a regular occurrence. If the disruption is major, decide whether to intervene immediately or to speak to the person privately in the chat or during a break or

by drawing them aside. Respectfully tell them what behavior you would like to see instead. For example, you could say, “I appreciate your concerns about standardized testing. I would be interested to hear your thoughts on the matter if you want to follow up with me in an email after the workshop. For today, though, let’s focus on what we can learn that might help us meet students’ needs.”

- **Create a “parking lot”** where you write down any questions or issues that you do not want to address during the workshop presentation. Especially if emotions are high, showing that you are listening and that you have noted the concern and will respond later can help. Return to the parking lot at the end of the session and respond to anything that has not yet been addressed.
- **For controversial issues, acknowledge what is said but neither agree nor disagree.** Say something like, “I appreciate that you feel strongly about this,” and then continue with the presentation.
- **If someone begins to ramble, diplomatically interrupt them** and try to tie what they are saying to the topic at hand. Thank them and move on.
- **Attempt to build rapport with a person who is disruptive.** Listen to them, value their input, acknowledge them, and respond by relating their comments to the goals of the workshop.
- **Do not reprimand, scold, or act condescendingly.** These actions may lead participants to become resentful or shut down.

Technology, equipment, and supplies

Being prepared ahead of time is the best way to avoid problems with technology, equipment, and supplies. Practice using the videoconference features ahead of time. Email materials ahead of time, and organize handouts so you can provide a link to them in the chat when they are needed. If meeting in person, make sure that you have more than enough supplies such as paper copies of your agenda and slide deck; the slide deck should always be provided to in-person participants with room for taking notes. Find out who is available to help with technological issues. Arrive or log on early on the day of the workshop so you can check all the equipment (laptop, projector, Wi-Fi, camera, microphone) in advance. Even so, things can go wrong, and

you will have to manage the situation. Here are some suggestions for how you might handle technical difficulties.

- **Try to maintain a sense of humor:** Saying, “Is it Friday the 13th again?” or “Looks like the slide deck took a day off,” will show that you are going to cope well with the problem. If you become anxious or upset, your participants might, too.
- **Ask the group for help:** “Does anyone know how to find the chat on an iPad?” or “Can anyone quickly get additional copies?”
- **Ask participants to share materials, if there are not enough copies of materials.** Then take names and email addresses of people who need materials and be sure to follow up by sending them after the workshop.
- **Give the group some options for how you can proceed:** “Should we take a break now instead of later? Reschedule? Muddle through without the PowerPoint?”

Environment

Sometimes a facilitator ends up in a workshop space, real or virtual, that is less than ideal. Some people may not be able to turn on their cameras, or they may need to log out and rejoin the workshops. In-person trainings may take place in rooms that are too small, too warm, too noisy, or completely windowless. If it is not possible to change rooms or address the issue, you will need to find a way to minimize discomfort and disruptions. Below are some ideas for how to manage environmental problems.

- Speak to the IT person or the person in charge of the facility as soon as possible, and let your participants know that you are trying to resolve the problem.
- Ask participants if they have any ideas about how to address the problem. Perhaps a teacher has a classroom nearby that can be used instead, or maybe someone has an ice pack they can put on the room thermometer to make the heat turn on.
- Use humor to lighten the mood. A small room can be “downright cozy” or a windowless room can be jokingly referred to as an “inner sanctum.”
- It may be best to ignore an environmental problem if it is minor. If you keep your group interested in the content of the workshop, they may not be bothered by the problem.

Adult learning principles

To serve as a brief reminder about adult learning principles, here are five key principles of adult learning:

- Adults need to know why they are learning.
- Adults are motivated to learn by the need to solve problems.
- Adults' previous experience should be respected and built upon.
- Learning approaches should match the adults' background and diversity.
- Adults need to be actively involved in the learning process.

For more information about adult learning principles, see Bryan et al. (2009).

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[Guide-508.pdf](https://ies.ed.gov/ncee/edlabs/regions/midwest/pdf/eventhandout/KIDS-Facilitator-Guide-508.pdf)

Appendix A: Handouts

This appendix includes one handout which describes the research that REL Appalachia consulted when preparing this workshop. It describes the strategies to support students in hybrid learning environments that were presented in the workshop in more detail.

Handout 1: Strategies to Support Students in Alternating Hybrid and Synchronous Hybrid Learning Environments

This handout describes the research presented during the workshop. It includes research relevant to the alternating hybrid learning and synchronous hybrid learning models.

Key terms

There are many terms used to describe different hybrid learning models. For the purposes of this workshop, we use the following terms for two common hybrid learning models:

- ***Alternating hybrid learning*** is a model of instruction in which teachers are teaching students in-person on some days and teaching students remotely on other days.
- ***Synchronous hybrid learning*** is a model of instruction in which teachers teach both in-person students and remote students simultaneously.

General best practices

Research on hybrid learning environments suggests that effective hybrid teachers, no matter what model they are using, engage in the following practices:

1. **High expectations & commitment to achieving equitable outcomes.** Research found that teachers who are able to balance rigor and support have more success with hybrid learning (Powell et al., 2014). Prior to the COVID-19 pandemic, hybrid learning was a burgeoning model of teaching, and there was little data on the kinds of teaching practices that were most effective in blended learning settings (Kennedy & Ferdig, 2018; Powell et al., 2014). Two organizations, iNACOL (now known as the Aurora Institute) and The Learning Accelerator (TLA), held a convening of hybrid learning practitioners and experts to develop a framework for school districts looking for guidance on how to effectively implement hybrid learning practices (Powell et al., 2014). The committee found that certain characteristics and values required of teachers in traditional learning environments were particularly helpful in the hybrid learning environment, including high expectations and a commitment to achieving equitable outcomes (Powell et al.,

2014). These qualities allow teachers to acclimate to the ever-evolving environment of blended learning and the technological shifts that come with it (Powell et al., 2014). High expectations allow teachers to set goals and measure student progress (Powell et al., 2014). A commitment to equity is also necessary because teachers in blended learning settings have the opportunity and responsibility to personalize learning to fit a multitude of student needs and ability levels (Powell et al., 2014).

2. **Competency-based learning.** Competency-based learning allows for learner variation because student progression is based on mastery of content rather than time elapsed since the start of a unit (Green & Harrington, 2020). This means that students are able to advance from one concept to another at their own pace while showing their understanding through activities such as projects or portfolios (Darling-Hammond et al., 2020; Green & Harrington, 2020). Hybrid learning provides teachers and districts with the opportunity to shift from traditional measures of tracking engagement such as in-person attendance to assessing students' engagement through competency-based tasks (Darling-Hammond et al., 2020). One school district, Lindsay Unified School District, transitioned to a competency-based model five years ago and was able to “transition seamlessly” to hybrid learning during the pandemic (Darling-Hammond et al., 2020, p. 11). Prior to the pandemic, the district saw gains in student test scores, including an increase in student proficiency rates, from 26 percent to 47 percent on the state's English Language Arts assessments (Darling-Hammond et al., 2020.)
3. **Valuing all learners.** Personalization is a way to respond to learners' needs, preferences, and differences (Kennedy & Ferdig, 2018). While many schools and districts are turning to hybrid learning as a result of the pandemic, blended learning was considered a major lever for the personalization of learning pre-pandemic (Green & Harrington, 2020; Kennedy & Ferdig, 2018). Research suggests that hybrid learning is more effective when instructors differentiate instruction to meet individual student's needs (Wang et al., 2018).

4. **Focusing on social presence.** Research has found that strong social presence—which can be understood as students’ sense of connection with others— can have a positive effect in hybrid learning environments (Kwon, 2019; Peterson & Arnold, 2016).

Prioritizing instructional needs

Hybrid learning calls for a greater emphasis on student-centered instructional designs and teaching models. Student-centered instruction is an instructional approach that has four main tenets: student voice, student choice, competency-based progression, and continuous monitoring of student needs (Green & Harrington, 2020). School districts that infused student-centered learning principles into their teaching models made smoother transitions to remote learning than districts that did not (Green & Harrington, 2020). There are a variety of curriculum design models and frameworks that can help teachers implement principles of student-centered learning in their classrooms. These include Universal Design for Learning, the notion of constructivism, and authentic learning.

- **Universal Design for Learning (UDL)** is a framework that underscores the importance of keeping learner variability in mind when designing lessons. Universal Design for Learning is considered a “scientifically valid conceptual framework” under the Every Student Succeeds Act (ESSA) (Kennedy & Ferdig, 2018, p. 480). In fully online environments, the application of UDL encouraged course completion and boosted students’ perceptions of their own effort (Al-Awazei et al., 2016). Implicit in UDL is an understanding that what is necessary for some students ends up being useful to all. The UDL framework is helpful for teachers trying to design learning experiences during a pandemic because every student is in a different place academically and often physically, too.

The three components of UDL include multiple means of representation, expression, engagement. UDL principles can be applied in the blended learning environment by presenting the same information in many different ways, giving students options for assignments, and integrating project-based learning into curriculum.

- **Constructivism.** Underpinning constructivism is the idea that students create knowledge through experience and social interaction (Kennedy & Ferdig, 2018; Larbi-Siaw & Owusu-Agyeman, 2017). In this view, the construction of knowledge, rather than the reproduction of facts, promotes deep learning. The principles of constructivism—doing, sharing, and reflecting—can facilitate student-centered learning in a virtual environment. Through a wealth of technology-based information, a constructivist approach allows students to engage with their peers in making sense of the learning content (Kennedy & Ferdig, 2018).

Teachers can apply constructivist principles to alternating hybrid learning environments by using in-person time for social interactions around learning content and online time conducting research and connecting with experts in the field (Kennedy & Ferdig, 2018).

- **Authentic Assessment of Learning.** Research suggests that connecting academic work to real-world or authentic scenarios can make teaching and learning more effective (Hurwitz & Malick, 2020). Assigning authentic formative assessments instead of decontextualized summative assessments is one way to apply authentic learning to the hybrid classroom (Darling-Hammond et al., 2020). Teachers can assign tasks that are “career-related” such as writing business plans (Darling-Hammond et al., 2020). These types of assessments can be done at home without teacher or family supervision. This is because, unlike traditional assessments, they require students to produce something novel (Darling-Hammond et al., 2020).

Alternating hybrid learning

How to structure in-person time

Focusing synchronous class time on small-group peer interactions and direct teacher-to-student feedback can be an effective way to divide time in alternating hybrid learning (Gallagher & Cottingham, 2020). A meta-analysis of studies of that compared online and blended learning to traditional in-person instruction found that the impacts on student outcomes were greater when online instruction also included opportunities for face-to-face interaction with the instructor and/or peers (Means et al., 2013).

The flipped classroom model can be a promising pedagogy for alternating hybrid learning (Gallagher & Cottingham, 2020). In a traditional classroom, most of the time is spent on acquiring knowledge. In a flipped classroom model, students engage with instructional material before class through recorded lectures, podcasts, readings, and other resources. The time in class is used to apply the material they learned. A meta-analysis of 114 studies with secondary & postsecondary students found that the flipped classroom model was slightly more effective than traditional instruction in affecting student academic outcomes, and that there was no real difference for student satisfaction with the course (van Alten et al., 2019). The authors of the meta-analysis found a lot of variability in how flipped classrooms were implemented. For example:

- Instructors can add quizzes to the in-person classes to assess the extent to which students understand the material they worked through on their own prior to class. This feature was found to increase the effectiveness of the flipped classroom model.
- Instructors can incorporate small group assignments, such as paired problem solving, think-pair-share, small group discussions, or cooperative learning activities. The research results on the effect of group assignments on student outcomes were inconsistent. The study authors concluded that the inconsistent results were likely because the content of those group activities varied.

How to structure asynchronous learning time

Employing project-based, authentic learning can help teachers structure asynchronous time strategically (Conley et al., 2020; Darling-Hammond et al., 2020). Teachers can present new information online or during in-person class time and then allow students to work on their projects during asynchronous time. Assignments students complete during asynchronous time can include collecting data/evidence, completing more readings/written reflections, meeting virtually with groups, preparing presentations, and engaging with interactive materials (Darling-Hammond et al., 2020).

Synchronous hybrid learning

Researchers studying synchronous hybrid learning models have identified two strategies for improving student learning and increasing engagement: establishing connectedness and ensuring smooth communication.

Strategies to establish connectedness

Researchers have studied ways to enhance the sense of connection between teachers, in-person students and students joining the class online. This research has identified some practices that can contribute to an increased sense of connection:

- **Use of small groups.** Multiple studies suggested the use of small groups to promote interaction among students (Angelone et al., 2020; Peterson & Arnold, 2016). One study compared different approaches to grouping students and concluded that it worked best to group online students together and in-person students together. This approach enabled groups to share a common shared experience and reduced frustration (Angelone et al., 2020).
- **Use technology only if it has the potential to help with pedagogy or create a co-presence for students.** By limiting the use of technology, instructors can limit the time spent on transitions between technologies and reduce the potential for technological issues (Angelone et al., 2020).
- **Use inclusive language.** One study also suggested that avoiding language like “here” or “there” can promote the feeling of the class being a cohesive group (Angelone et al., 2020).

Strategies to ensure smooth communication

Research also suggests that improving communication between virtual students and in-person students, virtual students and other virtual students, and virtual students and the teacher can create a more effective synchronous hybrid classroom (Wang et al., 2018). Some specific tips include:

- **Balance attention between online and in-person students.** It is easy for online students to participate less in a synchronous hybrid model, so it is important for teachers to be sure to intentionally engage online students as much as the in-person students (Peterson & Arnold, 2016; Wang et al., 2018).
- **Ensure your audio quality is strong,** as this can have an effect on students' overall learning experience (Wang et al., 2018).
- **Tailor activities to ensure all instruction is visible to online students.** This might include being very intentional about where activities take place, such as demonstrations in the classroom, to ensure that everything happening falls within the view of the camera (Wang et al., 2018).
- **Instructors can partner every online student with a student learning in-person.** Rather than try to monitor chat questions themselves, teachers can assign each in-person student a virtual partner. This way, the in-person student can inform the teacher of any chat messages from their partner. It is important to note that this can be a distraction to the in-person students, as they will be required to pay attention to both the teacher and the chat (Wang et al., 2018).

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Appendix B: Sample Workshop Invitation

The following text can be used in an email or a flyer to encourage educators in your district to participate in these workshops.

Educators across the country and around the world are working to discover the most effective methods for delivering online instruction to students in grades K–12. If you would like to know more about what may work for you and your students, join [your name here] for a workshop series developed by researchers from the Regional Educational Laboratory Appalachia in collaboration with education leaders from districts in eastern Tennessee and representatives from the Niswonger Foundation. The series is designed to share available research about the following topics:

- Supporting student engagement in a virtual environment.
- Monitoring student progress and providing feedback to students.
- Designing effective instruction for a hybrid model.

The training will provide:

- A curated review of the research for each of the topics listed above.
- Examples for how to implement the research-based strategies.

The third workshop will be on *designing effective instruction for a hybrid model*. [Enter any logistical information, such as the date of the workshop, time, location]

To participate, please [insert instructions on how to register]. If you have any questions, please contact [insert your contact information].

Appendix C: Alternative Suggestions for Creating Breakout Rooms and Polls

The train-the-trainer workshop was designed for Zoom, which has built-in features for creating breakout rooms and polls. This appendix offers some suggestions for how to implement these parts of the workshop if your videoconferencing software does not have these features.

Creating breakout rooms

If your videoconferencing software does not include a breakout room feature, you can still use breakout rooms, though the process is more involved. You will have to set up separate meeting rooms, each with their own link, for each group. Prior to the meeting, determine the number of breakout rooms you will need and which participants will attend each group. Then, set up separate meetings for each breakout group in addition to the meeting you set up for the whole group. When you invite each participant to the meeting include two links, one for the large group meeting and one for their assigned breakout room.

When it is time for breakout groups, provide clear instructions that participants should leave the whole group meeting and click on the link for their breakout room. Be sure to tell them what time they should return to the whole group meeting. Since the process of leaving and returning to the large group meeting is not automated, you may want to allow extra time in the agenda.

If you use Google Meet, a Chrome extension is available to create breakout rooms. Step-by-step instructions are available at <https://allthings.how/how-to-use-google-meet-breakout-rooms-extension/>.

Creating polls

If your videoconferencing software does not include a polling feature, you can still create polls using one of many free web-based polling features. For example,

- Pear Deck (www.peardeck.com) is designed to work seamlessly with Google Slides.
- Poll Everywhere (www.polleverywhere.com) and Mentimeter (www.mentimeter.com) allow participants to respond to polls from their own devices.