



Research-Based Strategies for Effective Remote Learning: Student Engagement

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: Student Engagement workshop with educators in your school or district. This handbook describes the purpose of each section of the workshop. It also provides the annotated agenda, summaries of the key content, suggested activities, and ideas for check-ins for each section of the workshop. 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 three content sections of the workshop are each focused on one type of engagement. They are organized so that they can be delivered in one session or divided into a series of three workshops.

Materials

To support your facilitation of the student engagement workshop, REL Appalachia has provided the following materials:

- A **slide presentation** for presenting the content and the activities. The notes section on each slide provides 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.
- Two **handouts** to share with participants. The first handout provides a summary of the engagement strategies with more detail than is provided on the slides. Participants will need to access this handout during the breakout activities, so they should either print it or keep it open on their personal computers during the workshop. The second handout provides a one-page graphic display of the strategies, which you can use as you plan your presentations. The handouts are 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 student engagement workshop is divided into three sections, each focusing on a different type of engagement: behavioral engagement, emotional engagement, and mental engagement. You can present these sections together in one 90-minute session, or separately in 30-minute increments. Additionally, you can decide to share these presentations as part of a larger school or district-wide professional development. If you present the workshop in separate sessions, repeat the welcome and introductions, overview of student engagement, 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 improve student engagement. The full agenda is in table 1.

Table 1. Full student engagement workshop agenda

Agenda item	Time frame	Activity prompts and check-ins	Slides
Welcome and introductions	10 minutes	Activity: Emotional engagement introductory activity	1–8
Overview of student engagement	10 minutes	Present the model of student academic engagement in online learning. Describe three types of student engagement. Check-in: Which type of engagement do you think is the easiest to influence?	9–16
Section 1—behavioral engagement	30 minutes	Describe behavioral engagement and summarize the research. Activity: One times three Check-in: How well do you understand how to improve your students' behavioral engagement?	17–25
Section 2—emotional engagement	30 minutes	Describe emotional engagement and summarize the research. Activity: <i>Five Whys</i> Check-in: What would you tell a new teacher about how to improve their students' emotional engagement?	26–33
Section 3—mental engagement	30 minutes	Describe mental engagement and summarize the research. Activity: 15 percent solution Check-in: Relating to mental engagement, I believe that ____ because ____.	34–41

Agenda item	Time frame	Activity prompts and check-ins	Slides
Wrap-up and next steps	10 minutes	Poll participants about their engagement in the workshop.	42–49

Activity prompts and check-ins

We encourage you to incorporate activities to keep participants engaged in the workshop, and to model how the strategies you present might be used with students. 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 school or district. You can also develop your own activities to promote different types of engagement. If you have time or prefer to include other activities, here are some ideas in addition to those described in the agenda:

- Help participants recognize and let go of limiting factors to 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, calling on participants, facilitating introductions, 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 as a way for participants to get to know each other. The notes in the slide presentation provide some examples of how to select a facilitator and how to reassure participants that they do not have to facilitate if they prefer not to.

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 this type of engagement? 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 this type of engagement?

Format

This workshop is designed to be delivered remotely using some of the common features of videoconferencing platforms (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 that promote engagement, be more explicit about how they would work in a remote learning context 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 platforms (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 video conference software. If your videoconferencing platform does not have built-in features for breakout rooms and polls, appendix C provides some suggestions for how to implement these components of the workshop.

Welcome and Introductions

Purpose and agenda

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 platform, share the agenda, and introduce the facilitators. If you present the workshop as three separate sessions, repeat this section each time.

Duration: 10 minutes

Slides: 1–8

Table 2. Welcome and introductions annotated agenda

Agenda item	Description	Slides
Welcome activity (5 minutes)	Welcome participants and facilitate a short introductory activity that allows participants to introduce themselves.	1–4
Background information (5 minutes)	Orient participants to the online features of the videoconferencing platform (for example, breakout rooms and the chat box), share the agenda, and introduce the facilitator(s) (remember to replace the facilitator photos on slide 5).	5–8

Activity description

The suggested welcome activity models an emotional engagement strategy that educators can replicate with their students. It also provides participants with an opportunity to introduce themselves to each other and to the facilitators. 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, share a favorite quote, some good advice you heard recently, or the reason you like to do the work you do). If your group is relatively small, have participants share out loud. If the group is large, ask them to share in the chat box.

Overview

Purpose and agenda

This section describes the focus of the workshop and introduces the three types of engagement—behavioral engagement, emotional engagement, and mental engagement. This section also presents a model to illustrate the three types of engagement necessary for a students’ academic success and the communities that can support student engagement. If you are presenting the three sessions separately, repeat this section each time.

Duration: 10 minutes

Slides: 9–16

Table 3. Overview annotated agenda

Agenda item	Description	Slides
Focus of the workshop (2 minutes)	Describe the research that will be presented during the workshop, its application to the K–12 remote learning context, and how it will focus on strategies educators can use.	9–10
Types of student engagement (2 minutes)	Introduce the three types of student engagement and provide relevant examples.	11
Model of student academic engagement (2 minutes)	Present the model of student academic engagement in online learning, which illustrates the three types of engagement needed for academic success and the different communities that can support student engagement.	12–15
Check-in (4 minutes)	Using a poll, ask participants to reflect on the three types of student engagement and which they think is easiest to influence. Share the results with participants and acknowledge that less time will be spent on the types that emerge as easiest to promote.	16

Focus of the workshop

This part of the workshop highlights the overarching purpose of the workshop and presents some of the limitations of the research on student engagement in online learning. This section shares how the research used for this workshop was most often conducted in a different context than the participants' K–12 classrooms (for example, higher education). Although most of the strategies presented in this workshop have not been rigorously tested by researchers with K–12 students, the training will help participants consider how the identified strategies can be applied in the K–12 context.

This section also explains that the research on online learning highlights different factors that can improve student engagement (for example, instructional design, features of software platforms, and the role of parents or online learning mentors). However, this workshop focuses on the strategies for educators because this is the best way to support participants' current need to increase student engagement in remote learning.

Types of student engagement

This part of the workshop is designed to introduce a model of overall student engagement that includes three dimensions, or types. The research uses the terms behavioral, affective, and cognitive. To better resonate with educators, this workshop uses the terms that describe the type of energy needed for affective and cognitive engagement—emotional and mental, specifically (Borup et al., 2014; Borup et al., 2020):

- Students expend physical energy to complete classwork requirements. Researchers call this behavioral engagement. For example, attendance, participation, completing work, following procedures, time on task.
- Students expend emotional energy associated with their feelings about classwork. Researchers call this affective engagement. For example, boredom versus enjoyment or interest, anxiety/frustration versus confidence, sadness versus happiness.

- Students expend mental energy when they are involved in classwork activities. Researchers call this cognitive engagement. For example, attention, absorption, concentration, persistence, cognitive/metacognitive strategy use.

Each of the three remaining sections of the workshop focuses more deeply on one type of student engagement. Each section briefly describes the research behind each type of engagement and then primarily focuses on what educators can do to promote each type of engagement in their students.

Model of student academic engagement in online learning

This part of the workshop describes a model of student academic engagement and how each type of engagement is required for a student to be successful in school. In figure 1, the amount of engagement a student needs to be successful in online learning is represented by the outer yellow triangle (Borup et al., 2020). The model shows the three types of engagement at each point of the yellow triangle. The green triangle in the center of the figure illustrates the level of each type of engagement that the student can

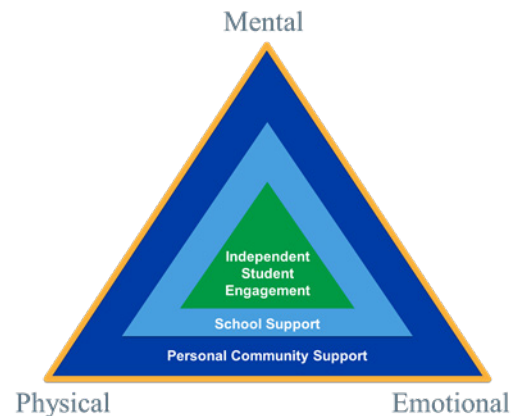


Figure 1: Model of student engagement in online learning

manage on their own, without support from others. The gap between the student’s level of engagement and the three types of engagement necessary for academic success can be supported by two communities—the school community (light blue triangle; for example, teachers, other students, and school support staff) and the personal community (dark blue triangle; for example, families, friends, and peers outside of school). The researchers who developed this framework theorize that it does not matter which community provides needed support as long as the community’s members have the relevant expertise to provide good support (Borup et al., 2020). Thus, this workshop is designed to support educators to develop the expertise and strategies needed to support student engagement in all three types and help fill the gap.

It is important to note that the support needed can vary by student, task, and type of engagement. The student's individual engagement level in the model (that is, the green triangle) shows an equal gap for all three types of engagement, indicating the student needs the same amount of support in each of the three types of engagement. In reality, the size of the gap can vary across the three types from student to student and from subject to subject.

To support educators' understanding of the model, it is important to provide real-life examples to put the model into context and show how the types of engagement can vary and interact with each other. The slide presentation provides the following examples of hypothetical students, which can be modified or substituted if other examples would be more relevant to participants:

- A student who shows up to online class sessions and turns in assignments on time but does not seem to put much thought into them. This student demonstrates high behavioral engagement and low mental engagement.
- A student who thoughtfully contributes to online discussions but does not attend class regularly or complete assignments outside of class. This student demonstrates high mental engagement but lower behavioral engagement.

This workshop is designed to model some of the engagement strategies. At this time, ask participants to try to be aware of their level of engagement throughout the workshop to support the wrap-up activity, which is designed to reinforce the workshop content and collect feedback by facilitating a discussion about participants' levels of engagement during the workshop and whether they were provided a structure that promoted their engagement.

Activity prompt

At the conclusion of this section, ask your participants the following poll question:

- Thinking about the students you work with and the modalities being used for teaching, which type of engagement do you think is the easiest to influence in an online environment? Behavioral, emotional, or mental?

Once participants have completed the poll, discuss the results and use them to adapt the workshop content if needed. For example, if a majority of participants say that behavioral engagement is the easiest to influence, you might ask them to share, in the chat, if there are any issues around behavioral engagement that they still struggle with. Or, you might consider spending less time on one type of engagement if there is consensus among the participants that it is the easiest to influence. This activity is aligned with several principles of adult learning theory that state that adults are motivated to learn by the need to solve problems, to know why they are learning, and to expect that their previous experience must be respected and built upon (Bryan et al., 2009).

Behavioral Engagement

Purpose and agenda

This section briefly presents the research about behavioral engagement and then details strategies educators can use to promote this type of engagement in their students in a remote learning context. This section includes an activity prompt and check-in to engage participants and assess their understanding.

Duration: 30 minutes

Slides: 17–25

Table 4. Section 1: Behavioral engagement annotated agenda

Agenda item	Description	Slides
What we know about behavioral engagement (3 minutes)	Describe behavioral engagement and summarize the research.	17–19
How to promote behavioral engagement (5 minutes)	Present strategies to promote behavioral engagement in students.	20–23
Activity prompt (17 minutes)	Engage participants to share their experiences with behavioral engagement. In breakout rooms, ask them to discuss one success, one challenge, and one strategy they want to try.	24
Check-in (5 minutes)	Using a poll, ask participants how well they understand how to improve students' behavioral engagement. Also, elicit any questions or concerns from participants.	25

What we know about behavioral engagement

This part of the workshop describes behavioral engagement in more detail and reiterates that this type of engagement is the energy exerted to complete classwork requirements including

attendance, participation, completing work, following procedures, and time on task. It presents some research findings related to behavioral engagement that demonstrate a link to student achievement for K–12 students. A great deal of research has been conducted on behavioral engagement but not necessarily in remote learning settings (Fredericks et al., 2004). However, these findings demonstrate why it is important to consider behavioral engagement. For example, research shows associations between the following:

- Low behavioral engagement and skipping class, suspension, grade retention, and dropping out of school.
- Teachers’ ratings of behavioral engagement in early grades and whether or not students later dropped out of school.
- Perceived teacher support and behavioral engagement among K–12 students.
- Associations between features of classroom structure (for example, setting clear expectations and responding consistently when students violate expectations) and behavioral engagement.

How to promote behavioral engagement

This part of the workshop presents strategies that educators can use to promote behavioral engagement. There are three categories of strategies that can promote this type of engagement: troubleshooting and orienting, organizing and managing, and monitoring and encouraging process. Strategies, examples of how to implement them, and the supporting research literature are presented in Handout 1 in appendix A. To support participant engagement, consider using these strategies in the training activities wherever possible to model how the strategies can be implemented effectively. For example, the slide orienting participants to the online features of the video conferencing platform is a strategy that addresses the troubleshooting and orienting category.

Activity prompt

This suggested activity provides participants time to reflect on their own experiences with behavioral engagement in small groups. This “one times three” activity asks participants to share

three things regarding behavioral engagement in remote learning with their peers: one thing that is working, one thing that is still a challenge, and one thing participants want to try next to improve students' behavioral engagement. Once each participant has responded, you should provide small groups an opportunity for an unstructured conversation to ask questions of their peers. Each small group will need to designate a facilitator by, for example, asking the small group to determine whose birthday was most recent and whether that participant would be willing to act as the facilitator. It is important to provide a clear explanation of this activity, the process for selecting a facilitator, and the facilitator's role prior to breaking into small groups to ensure participants understand the task at hand. Also, explain how moving in and out of breakout rooms works and what to do if assistance is needed.

Check-in

To assess participants' learning and understanding, ask the following poll questions at the conclusion of this section:

- How well do you understand how to improve students' behavioral engagement?
- How successfully do you think you can adapt these strategies for a remote learning context?

This is also an opportunity to address any questions or issues using the chat box. Review the poll results 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 on this type of engagement if understanding is low).

Emotional Engagement

Purpose and agenda

This section briefly presents the research about emotional engagement and then details the strategies educators can use to promote this type of engagement in their students in a remote learning context. This section includes an activity prompt and check-in to engage participants and assess their understanding.

Duration: 30 minutes

Slides: 26–33

Table 5. Section 2: Emotional engagement annotated agenda

Agenda item	Description	Slides
What we know about emotional engagement (3 minutes)	Describe emotional engagement and summarize the research.	26–28
How to promote emotional engagement (5 minutes)	Present strategies to promote emotional engagement in students.	29–31
Activity prompt (17 minutes)	Using the Five Whys structure, encourage participants to reflect on an action they are doing to promote emotional engagement with students and the reasoning behind it.	32
Check-in (5 minutes)	Using the chat box, ask participants: what would you tell a new teacher about how to improve their students' emotional engagement? Also, elicit any questions or concerns from participants.	33

What we know about emotional engagement

This part of the workshop describes emotional engagement in more detail and reiterates that this type of engagement is the emotional energy associated with feelings about classwork and

concerns students' feelings about school (for example, boredom, interest, anxiety, or confidence). The section presents the research regarding emotional engagement and what we know about it. For example, research shows:

- Students who are more emotionally engaged in school may see more value in learning activities.
- Emotional engagement can include a sense of belonging to the school.

Emotional engagement is important to student learning because some research suggests there is an association between the value that students place on schooling and their achievement in school. Similarly, some research suggests that students who feel more connected to school may perform better academically in school (Borup et al., 2020; Fredericks et al., 2004).

How to promote emotional engagement

This part of the workshop presents strategies that educators can use to promote emotional engagement. There are two categories of strategies that can promote this type of engagement: facilitating communication and developing relationships, and instilling excitement for learning. Strategies, examples of how to implement them, and the supporting research literature are presented in Handout 1 of appendix A. To support participant engagement, consider using these strategies in the training activities wherever possible to model how the strategies can be used effectively. For example, the welcome activity attempts to cultivate an experience of social presence.

Activity prompt

The suggested activity provides participants time to reflect on one action they are doing to promote emotional engagement with students and the reasoning behind it. This activity is called the *Five Whys* and will be done in small groups. This activity asks participants to name something they are doing to promote emotional engagement with their students. Then they explain why they are doing that over and over up to five times or until they are unable to explain why again. For example:

To promote emotional engagement with my students, I use structured breakout discussions. Why?

Because a small group allows people to interact more easily. Why?

Because students feel greater trust and less risk in speaking up. Why?

Because people feel like they can see everyone who is online with them and can feel some rapport.

This process is intended to help participants reveal the reasoning behind their actions or to identify any mismatches between their actions and their intentions. Each small group will need to designate a facilitator by, for example, asking the small group to determine who has the most letters in their middle name and if they are willing to act as the facilitator. It is important to provide a clear explanation of this activity, the process for selecting a facilitator, and the facilitator's role before breaking into small groups to ensure participants understand the task at hand.

Check-in

To assess participants' learning and understanding, ask participants to use the chat box to answer the following question at the conclusion of this section:

- What would you tell a new teacher about how to improve their students' emotional engagement?

This is also an opportunity to address any questions or issues using the chat box. Participants can be directed 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 on this type of engagement if understanding is low).

Mental Engagement

Purpose and agenda

This section briefly presents the research about mental engagement and then details strategies educators can use to promote mental engagement in their students in a remote learning context. This section includes an activity prompt and check-in to engage participants and assess their understanding.

Duration: 30 minutes

Slides: 34–41

Table 6. Section 3: Mental engagement annotated agenda

Agenda item	Description	Slides
What we know about mental engagement (3 minutes)	Describe mental engagement and summarizes the research.	34–36
How to promote mental engagement (5 minutes)	Present strategies to promote mental engagement in students.	37–39
Activity prompt (17 minutes)	Using the <i>15 percent solution</i> , ² encourage participants to identify ways within their discretion and ability to increase a student’s engagement by 15 percent.	40
Check-in (5 minutes)	Using the chat box, ask participants to complete the following statement: Relating to mental engagement, I believe that ____ because _____. Also, elicit any questions or concerns from participants.	41

² From <http://www.liberatingstructures.com/7-15-solutions/>

What we know about mental engagement

This part of the workshop describes mental engagement in more detail and reiterates that this type of engagement is the energy exerted during in classwork activities, including students' attention, absorption, concentration, persistence, and cognitive/metacognitive strategy use. This part of the workshop also presents the research regarding mental engagement and what we know about it. A great deal of research has been conducted on mental engagement but not necessarily in remote learning settings (Fredericks et al., 2004). However, these findings demonstrate why it is important to consider mental engagement. For example, research shows:

- Students who exhibit more mental engagement develop a deeper understanding of academic content.
- Students' use of metacognitive strategies is associated with greater student achievement.
- Students' mental engagement is higher when teachers both present challenging work and create a socially supportive classroom environment (Fredericks et al., 2004).

How to promote mental engagement

This part of the workshop then presents strategies that educators can use to promote mental engagement. Strategies, examples of how to implement them, and the supporting research literature are presented in Handout 1 in appendix A. To support participant engagement, consider using these strategies in the training activities wherever possible to model how teachers can use the strategies effectively. For example, before the breakout sessions, you will model how to provide clear guidelines for online discussions. This promotes mental engagement by preparing participants for how they are expected to engage in the activity.

Activity prompt

This suggested activity provides participants time to discuss what they can do immediately to improve students' mental engagement, that is, increase their attention, concentration, and persistence. It is important to recognize that educators are only one piece of the student engagement model—students can manage some level of engagement in school on their own and also have personal networks that can promote their engagement in school. Many aspects of

student engagement are outside of educators' control, particularly in remote learning (such as students' prior learning, students' learning environments, availability of appropriate materials). The goal of this activity is for participants to identify ways within their discretion and ability to increase a student's engagement by 15 percent.

Each small group will need to designate a facilitator by, for example, asking the small group whose place of birth would appear first on an alphabetical list and if they are willing to act as the facilitator. It is important to provide a clear explanation of this activity, the process for selecting a facilitator, and the facilitator's role before breaking into small groups to ensure participants understand the task at hand.

Check-in

To assess participants' learning and understanding, ask participants to use the chat box to complete the following statement:

- Relating to mental engagement, I believe that ____ because ____.

This is also an opportunity to address any questions or issues using the chat box. Participants can be directed 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 on this type of engagement if understanding is low).

Wrap-up and Next Steps

Purpose and agenda

This section concludes the workshop. The section includes one final activity and provides information about the next steps for participants. If you are presenting the three sessions separately, repeat this section each time.

Duration: 10 minutes

Slides: 42–49

Table 7. Wrap up and next steps annotated agenda

Agenda item	Description	Slides
Closing activity (5 minutes)	Using a poll, ask participants how engaged they were during the presentation.	42–44
Next steps (5 minutes)	Provide participants with information about the next steps. This may include reviewing logistics for any upcoming workshops, collecting feedback from participants, providing contact information of anyone participants can reach out to with questions, and describing your level of availability to engage further on the topic. Be sure to thank participants for their time and participation.	45–49

Closing activity

To assess participants’ learning and understanding, use a poll at the conclusion of the workshop to assess how engaged they were during the presentation. Be sure to specifically ask about whichever type or types of engagement were presented. This will help reinforce the workshop content and provide an opportunity for you to collect feedback. It will also help participants reflect on how effective the strategies you modeled in the workshop activities were and why. You may want to collect more detailed feedback about the workshop as well.

Best Practices in Facilitation

Thus far, this handbook has presented the content to facilitate the student engagement workshop. If you need additional support facilitating adult learning online, here are some additional tips.³

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 platform.
- 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.

³ 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 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 of 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?”
- If there are not enough copies of materials, ask people to share, and 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, for example: “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. Maybe 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: 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 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).

References

- Borup, J., West, R. E., Graham, C. R., & Davies, R. S. (2014). The adolescent community of engagement framework: A lens for research on K–12 online learning. *Journal of Technology and Teacher Education*, 22(1), 107–129. <http://www.learntechlib.org/p/112371/>
- Borup, J., Graham, C. R., West, R. E., Archambault, L., & Spring, K. J. (2020). Academic Communities of Engagement: An expansive lens for examining support structures in blended and online learning. *Educational Technology Research and Development*, 68, 807–832. <https://doi.org/10.1007/s11423-020-09744-x>
- Bryan, R. L., Kreuter, M. W., & Brownson, R. (2009). Integrating adult learning principles into training for public health practice. *Health Promotion Practice*, 10(4), 557–563. <https://doi.org/10.1177/1524839907308117>
- Dixon, M. D. (2010). Creating effective student engagement in online courses: What do students find engaging? *Journal of the Scholarship of Teaching and Learning*, 10(2), 1–13. <https://files.eric.ed.gov/fulltext/EJ890707.pdf>
- Fredericks, J. A., Blumenfeld, P. C. & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74(1), 59–109.
- Kehrwald, B. (2008). Understanding social presence in text-based online learning environments. *Distance Education*, 29(1), 89–106. <https://doi.org/10.1080/01587910802004860>
- Regional Educational Laboratory Midwest. (2018). *KIDS Data Use workshop: Facilitator’s guide*. https://ies.ed.gov/ncee/edlabs/regions/midwest/events/archived_events/2018/october-22.aspx

Appendix A: Participant Handouts

This appendix includes two handouts. The first handout (pages 31–40) describes the research behind the student engagement workshop and the recommended strategies to support student engagement in a virtual environment in more detail. The second handout (page 41) provides a visual representation of the three types of student engagement and example strategies to build each type of student engagement.

Handout 1: Strategies to Support Students' Behavioral, Emotional, and Mental Engagement

This handout describes a framework for supporting student engagement in online learning environments and provides strategies for educators to support student engagement.

The Academic Communities of Engagement framework

This framework was developed to describe the nature of student engagement in online and blended learning and to understand how to support students to be successful (Borup et al., 2014; Borup et al., 2020). The research describes three types of engagement that are related to the students' energies:

- Students expend physical energy to complete classwork requirements. For example, attendance, participation, completing work, following procedures, time on task. Researchers call this behavioral engagement.
- Students expend emotional energy associated with their feelings about classwork. For example, boredom vs. enjoyment or interest, anxiety or frustration vs. confidence, sadness vs. happiness. Researchers call this affective engagement.
- Students expend mental energy when they are involved in classwork activities. For example, attention, absorption, concentration, persistence, cognitive/metacognitive strategy use. Researchers call this cognitive engagement.

Students might have varying levels of engagement across these types and across academic subjects. Students need at least some level of all three types of engagement to be successful in school.

A conceptual model for student engagement is presented in figure 1. The outer yellow triangle represents the amount of each type of engagement a student needs to be successful academically (Borup et al., 2020). The green triangle in the center represents the amount of each type of engagement that the student can manage on their own. The figure depicts a gap between the green and yellow triangles, which can be interpreted as the gap between what students need to be successful and what

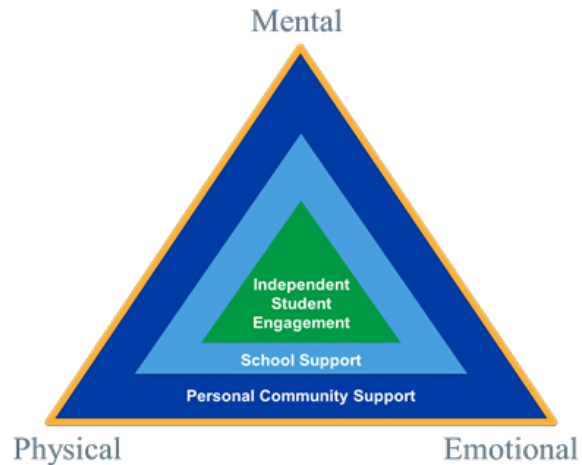


Figure 1: Model of student engagement in online learning

they can manage on their own. Two communities can support students to fill the gap—the school community (light blue triangle; for example, teachers, other students, school support staff) and the personal community (dark blue triangle; for example, families, friends, peers outside of school). The researchers who developed this framework theorize that it does not matter which community provides support, as long as the community’s members have the relevant expertise to provide good support (Borup et al., 2020). Thus, this workshop is designed to support educators in developing the expertise and strategies needed to support all three types of student engagement and help fill the gap via the school community.

The support educators provide to students will vary based on their students’ engagement needs:

- Behavioral engagement—troubleshooting and orienting, organizing and managing, monitoring and encouraging progress
- Emotional engagement—facilitating communication and developing relationships, instilling excitement for learning
- Mental engagement—instructing and collaborating

The remainder of this handout provides strategies for supporting students based on this framework.

Supporting behavioral engagement

Researchers have suggested three categories of strategies to promote behavioral engagement in online learning:

1. Troubleshooting and orienting;
2. Organizing and managing; and
3. Monitoring and encouraging progress.

Troubleshooting and orienting

- Provide technology to families who need it. For example, provide laptops, tablets, or Wi-Fi hot spots (Borup et al., 2020).
- Provide support for accessing and navigating classwork. Ensure students (and families) know how to navigate all academic resources, including how to find resources they need on whichever learning platform is being used and how to find feedback on their work (Borup et al., 2020; Quality Matters and the Virtual Learning Leadership Alliance, 2019).

Organizing and managing

- Provide instruction in self-regulated learning strategies. Help students self-regulate their learning by helping them set goals for themselves, identifying strategies to achieve those goals, monitoring their progress toward their goals, and reflecting on their accomplishments (Abrami et al., 2011; Means et al., 2009). Strategies might include identifying a peer to study with or breaking large projects down into smaller chunks (Chambers et al., 2020). When reflecting on their accomplishments, students can rely on their own observations about their learning as well as peer and teacher feedback (Abrami et al., 2011).
 - Digital learning plans are one way to facilitate self-regulated learning in online education. The plans can provide a structure for students to set short- and long-term goals, identify strategies, reflect on their progress toward their goals, and

identify potential improvements to their approach to online learning (Chambers et al., 2020).

- Educators can also meet with students individually to set goals and monitor progress together. These meetings can provide an opportunity for educators to learn about students' personal interests, barriers to learning, and to use this information to inform supports (Quality Matters and the Virtual Learning Leadership Alliance, 2019).

Monitoring and encouraging progress

- Communicate frequently with stakeholders regarding learner progress and strategies for supporting learner engagement. For example, engage in ongoing, open, proactive, and continuous communication with parents and school counselors; communicate study practices to parents so they can support their students in learning; and provide clear feedback to students that explains how their work demonstrates mastery or not (Quality Matters and the Virtual Learning Leadership Alliance, 2019).
- Monitor students' activity and follow up when it is low. For example, if students are not completing asynchronous work, it may indicate that they are struggling with self-directed work. Communicate with families or caregivers to identify individual needs and supports. Learning management systems (LMS) can provide data that educators can use to identify patterns in learner engagement such as time spent in the LMS and time spent engaging with particular material (Borup et al., 2020; Murphy & Rodriguez-Manzanares, 2008; Quality Matters and the Virtual Learning Leadership Alliance, 2019). When educators' attempts at re-engaging students do not work, create a mechanism for identifying students that educators are concerned about so counselors or paraprofessionals can follow up (Borup et al., 2020).

Supporting emotional engagement

Researchers have suggested two categories of strategies to promote emotional engagement:

1. Facilitating communications and developing relationships; and

2. Instilling excitement for learning.

Facilitating communication and developing relationships

- Cultivate social presence. When you experience the social presence of another person, it feels like you are engaging in human-human interaction, rather than human-machine interaction. It sets the stage for getting to know each other, developing a sense of connection, developing relationships, developing a sense of belonging, overcoming feelings of loneliness or isolation, feeling trust, respect, rapport, empathy, and feeling safe to take an interpersonal risk (without fear of ostracism or ridicule). Educators can establish a social presence by:
 - Being actively and visibly involved in students' learning by posting messages, responding to others, and participating in groups (Dixon, 2010; Kehrwald, 2008).
 - Engaging in interactions where they offer clues to their histories, personalities, and current circumstances. They can also provide opportunities and encourage others to share appropriate personal information, personalities (for example, attitudes, demeanor, sense of humor), and current circumstances. Doing so allows participants to recognize what they have in common with each other, which supports relationship building (Dixon, 2010; Kehrwald, 2008).
- Communicate with students and their families outside of class. The more contact you have with students and families, the better. The most effective communication is personalized (that is, not just newsletters or email blasts). Use communication strategies that are appropriate for the purpose and audience. Communicate in a way that allows students and families to perceive the educator as a real person. Use communication to develop relationships with the learners (Borup et al., 2020; Murphy & Rodriguez-Manzanares, 2008; Quality Matters and the Virtual Learning Leadership Alliance, 2019). Using multiple channels of communication has been associated with greater student engagement in some research (Dixon, 2010).
- Add synchronous elements when the class is primarily asynchronous, if possible. This might include scheduled discussion groups. If groups are large, use breakout groups to allow for more student interaction (Banna et al., 2015).

- Engage in deliberate rapport building. It is often harder to establish relationships in an online setting, so educators should deliberately plan for opportunities to establish rapport. This may include asking more questions of students than one might do in a face-to-face setting (Murphy & Rodriguez-Manzanares, 2008).
- Develop ways for students to engage with each other. This could be discussion forums, group discussions, group work, peer review of work, or games (Murphy & Rodriguez-Manzanares, 2008; Dixon, 2010). Some research suggests that students' perceptions of opportunities for interaction were stronger predictors of course satisfaction than their actual interaction activity (Bernard et al., 2009). Some research also suggests that instructors can build community by asking all students to share or react in class (Murphy & Rodriguez-Manzanares, 2008). Students need to feel connected to the instructor and the other students in the class as well as to the content. There is a risk that students will feel isolated in online learning, so building community is especially important (Murphy & Rodriguez-Manzanares, 2008; Dixon, 2010).

Instilling excitement for learning

- Provide opportunities for social interaction through fun activities. For example, include Zoom scavenger hunts (Borup et al., 2020).
- Post daily motivational videos (Borup et al., 2020).
- Communicate with students about their interests and provide opportunities for instruction aligned with those interests. This could include varied assessment strategies or different options to demonstrate mastery (Quality Matters and the Virtual Learning Leadership Alliance, 2019).

Supporting mental engagement

Researchers have suggested two categories of strategies to promote mental engagement:

1. Instructing; and
2. Collaborating.

Instructing

- Provide office hours for feedback and extra help (Borup et al., 2020).
- Provide feedback using various formats. For example, create a screencast, or video of your computer screen with audio narration, to provide feedback on projects or office hours (Quality Matters and the Virtual Learning Leadership Alliance, 2019).
- Provide clear, accurate feedback regarding students' developing competencies, expertise, and skills (Abrami et al., 2011).
- Provide supports for learner reflection, self-explanation, and self-monitoring. Examples include formative assessments, pointing students towards resources to find the right answer if they respond to questions incorrectly, self-assessments at the end of learning modules, asking students to reflect on problem-solving strategies, and asking students to explain their work (Means et al., 2009).
- Engage students in active learning. Ideas for more active learning include games, virtual teams, case studies, activities that ask students to apply what they are learning, discussion forums, labs, group projects, research papers, and assignments related to current events. Less active forms of instruction include recorded lectures, quizzes, readings, homework, tests, watching/looking at PowerPoint slides (Dixon, 2010).
- Incorporate multimedia learning principles. The central challenge of instructional design for multimedia learning is to support students' cognitive processing (such as organizing and integrating information) during learning. Students can become overwhelmed or distracted if too much visual or verbal information is presented at once. Research suggests five evidence-based principles for reducing extraneous processing:
 - Reduce extraneous material and instead use simple text and visuals that are essential to the content being presented.
 - Highlight essential material using formatting or arrows to draw students' attention to the most important information on the screen.
 - Do not add on-screen text to narrated animation.
 - Place printed words next to corresponding graphics.

- Present corresponding narration and animation at the same time (Abrami et al., 2011).
- Provide opportunities to both challenge students and for them to be successful (Abrami et al., 2011).
- Provide relevant tasks and materials to help students identify with school and content to be learned (Abrami et al., 2011).

Collaborating

- Support discourse that focuses on the importance and utility of content and activities (Abrami et al., 2011).
- Include opportunities for group work and cooperative learning. A meta-analysis found that group performance was better than individual performance when students had more control over the activity, the task was more difficult, and groups were about three to five people (Lou & d'Apollonia, 2001).
- Provide clear guidelines about the content for online discussion threads. Some research with postsecondary students found that when the guidance about discussion expectations was clearer, students were more self-reflective and provided more constructive feedback on others' posts (Chambers et al., 2020).
- Model good interaction in online discussion groups. For example, reply to students by name, ask questions, acknowledge students' comments, and express appreciation to students (Chambers et al., 2020).

References

- Abrami, P. C., Bernard, R. M., Bures, E. M., Borokhovski, E., & Tamim, R. M. (2011). Interaction in distance education and online learning: using evidence and theory to improve practice. *Journal of Computing in Higher Education*, 23(2-3), 82–103.
<https://eric.ed.gov/?id=EJ934548>
- Banna, J., Lin, M. G., Stewart, M., & Fialkowski, M. K. (2015). Interaction matters: Strategies to promote engaged learning in an online introductory nutrition course. *MERLOT Journal of*

Online Teaching and Learning, 11(2), 249–261.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4948751/>

Bernard, R. M., Abrami, P. C., Borokhovski, E., Wade, C. A., Tamim, R. M., Surkes, M. A., & Bethel, E. C. (2009). A meta-analysis of three types of interaction treatments in distance education. *Review of Educational Research*, 79(3), 1243–1289.

<https://eric.ed.gov/?id=EJ879417>

Borup, J., West, R. E., Graham, C. R., & Davies, R. S. (2014). The adolescent community of engagement framework: A lens for research on K–12 online learning. *Journal of Technology and Teacher Education*, 22(1), 107–129. <http://www.learntechlib.org/p/112371/>

Borup, J., Graham, C. R., West, R. E., Archambault, L., & Spring, K. J. (2020). Academic Communities of Engagement: An expansive lens for examining support structures in blended and online learning. *Educational Technology Research and Development*, 68, 807–832.

<https://doi.org/10.1007/s11423-020-09744-x>

Chambers, D., Scala, J., & English, D. (2020). *Promising practices brief: Improving student engagement and attendance during COVID-19 school closures*. Insight Policy Research.

https://insightpolicyresearch.com/wp-content/uploads/2020/08/NSAES_COVID19_Whitepaper_Final_508.pdf

Dixon, M. D. (2010). Creating effective student engagement in online courses: What do students find engaging? *Journal of the Scholarship of Teaching and Learning*, 10(2), 1–13.

<https://files.eric.ed.gov/fulltext/EJ890707.pdf>

Kehrwald, B. (2008). Understanding social presence in text-based online learning environments. *Distance Education*, 29(1), 89–106. <https://doi.org/10.1080/01587910802004860>

Lou, Y., Abrami, P. C., & d'Apollonia, S. (2001). Small group and individual learning with technology: A meta-analysis. *Review of Educational Research*, 71(3), 449–521.

<https://eric.ed.gov/?id=EJ648243>

Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*.

U.S. Department of Education, Office of Planning, Evaluation, and Policy Development.

<https://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>

Murphy, E., & Rodriguez-Manzanares, M. A. (2008). Revisiting transactional distance theory in a context of web-based high-school distance education. *Journal of Distance Education*,

22(2), 1–14. <https://files.eric.ed.gov/fulltext/EJ805075.pdf>

Quality Matters and the Virtual Learning Leadership Alliance (2019). *National standards for quality online teaching, third edition*. <https://www.nsqol.org/the-standards/quality-online-teaching/>

Supporting Student Engagement

Students need some level of behavioral, emotional, and mental engagement to be successful in school. Students can manage some engagement themselves, but they may need support to become fully engaged. This handout lists strategies that educators can use to support students to bridge that gap.* The support educators provide to students will vary depending on whether students need support for behavioral, emotional, or mental engagement.



Behavioral Engagement

Such as attendance, participation, and following procedures

- Provide necessary technology
- Teach technology skills
- Teach self-regulated learning strategies, such as goal setting and monitoring progress toward goals
- Communicate with families about student progress and strategies for supporting student engagement with schoolwork
- Follow up with students to encourage better engagement



Emotional Engagement

Such as enjoyment, interest, and confidence

- Cultivate social presence by offering clues to your history, personality, and current circumstances
- Communicate with students and families outside of class to develop relationships with them
- Add synchronous elements to lessons (or class periods)
- Intentionally build rapport
- Develop ways for students to engage with each other
- Make learning exciting and relevant



Mental Engagement

Such as concentration, persistence, and self-reflection

- Provide office hours
- Offer feedback through 1:1 meetings or over email
- Support self-reflection
- Engage students in active learning
- Incorporate multimedia learning principles
- Provide opportunities for challenge and for success
- Provide relevant tasks and materials
- Organize group work and cooperative learning
- Provide clear guidelines for discussion
- Model good online interaction

*Abrami et. al., 2011; Banna et. al., 2015; Bernard et. al., 2009; Borup et. al., 2020; Chambers et. al., 2020; Dixon, 2010; Kehrwald, 2008; Lou et. al., 2001; Means et. al., 2009; Murphy & Rodriguez-Manzanares, 2008; Quality Matters, 2019

References

- Abrami, P. C., Bernard, R. M., Bures, E. M., Borokhovski, E., & Tamim, R. M. (2011). Interaction in distance education and online learning: using evidence and theory to improve practice. *Journal of Computing in Higher Education*, 23(2-3), 82–103.
<https://eric.ed.gov/?id=EJ934548>
- Banna, J., Lin, M. G., Stewart, M. & Fialkowski, M. K. (2015). Interaction matters: Strategies to promote engaged learning in an online introductory nutrition course. *MERLOT Journal of Online Teaching and Learning*, 11(2), 249–261.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4948751/>
- Bernard, R. M., Abrami, P. C., Borokhovski, E., Wade, C. A., Tamim, R. M., Surkes, M. A., & Bethel, E. C. (2009). A meta-analysis of three types of interaction treatments in distance education. *Review of Educational Research*, 79(3), 1243–1289.
<https://eric.ed.gov/?id=EJ879417>
- Borup, J., West, R. E., Graham, C. R. & Davies, R. S. (2014). The adolescent community of engagement framework: A lens for research on K-12 online learning. *Journal of Technology and Teacher Education*, 22(1), 107–129. <http://www.learntechlib.org/p/112371/>
- Borup, J., Graham, C. R., West, R. E., Archambault, L., & Spring, K. J. (2020). Academic Communities of Engagement: An expansive lens for examining support structures in blended and online learning. *Educational Technology Research and Development*, 68, 807–832.
<https://doi.org/10.1007/s11423-020-09744-x>
- Chambers, D., Scala, J., & English, D. (2020). *Promising practices brief: Improving student engagement and attendance during COVID-19 school closures*. Insight Policy Research.
https://insightpolicyresearch.com/wp-content/uploads/2020/08/NSAES_COVID19_Whitepaper_Final_508.pdf
- Dixon, M. D. (2010). Creating effective student engagement in online courses: What do students find engaging? *Journal of the Scholarship of Teaching and Learning*, 10(2), 1–13.
<https://files.eric.ed.gov/fulltext/EJ890707.pdf>

- Kehrwald, B. (2008). Understanding social presence in text-based online learning environments. *Distance Education, 29*(1), 89–106. <https://doi.org/10.1080/01587910802004860>
- Lou, Y., Abrami, & P. C., d'Apollonia, S. (2001). Small group and individual learning with technology: a meta-analysis. *Review of Educational Research, 71*(3), 449–521. <https://eric.ed.gov/?id=EJ648243>
- Means, B., Toyama, Y., Murphy, R., Bakia, M., & Jones, K. (2009). *Evaluation of evidence-based practices in online learning: A meta-analysis and review of online learning studies*. U.S. Department of Education, Office of Planning, Evaluation, and Policy Development. <https://www2.ed.gov/rschstat/eval/tech/evidence-based-practices/finalreport.pdf>
- Murphy, E. & Rodriguez-Manzanares, M. A. (2008). Revisiting transactional distance theory in a context of web-based high-school distance education. *Journal of Distance Education, 22*(2), 1–14. <https://files.eric.ed.gov/fulltext/EJ805075.pdf>
- Quality Matters and the Virtual Learning Leadership Alliance (2019). *National standards for quality online teaching, third edition*. <https://www.nsqol.org/the-standards/quality-online-teaching/>

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 academic 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 first workshop will be on *supporting student engagement in a virtual environment*.

[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. Some videoconferencing platforms do not have these built-in features. This appendix offers some suggestions for how to implement these parts of the workshop if your videoconferencing platform 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.