

Research Summary: Best Practices for Virtual Training

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Note: Sections I-III (p. 2-13) includes the summarized response to the research topic, and Section IV includes more details on recommendations/best practices from the various sources that were reviewed.

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I. Recommendations on Length of/Timing/Breaks for Virtual Courses¹

- Finding the balance between content and running length is tricky. Too light on material and your short course will not have an impact; while on the flipside, overly stuffed courses can test your audience's attention span to its limits.
- Just as long lectures are not the best way to engage a face-to-face class, they are even more ineffective online.
- Across multiple sources the standard recommendation is to never exceed 90 minutes for a virtual/online training session. Any longer and learners lose interest and become distracted. If more time is needed, it is recommended to break sessions into multiple days. Typical virtual training sessions range from 60 to 90 minutes.
 - Bob Pike's 90/20/8 rule of instructional design for in-person training says sessions should be no longer than 90 minutes without a formal break, a trainer should teach/lecture for no more than 20 minutes, and the training participants should have the opportunity to be involved every eight minutes. For virtual training an adjusted 90/20/4 rule is recommended, with trainers advised to break their content into chunks that are 20 minutes or less in length and involve people in those chunks at least once every four minutes.² This adjustment from eight to four minutes is because in virtual training the trainer has no eye contact with participants, so it is much easier for training participants to disengage from the training, thus requiring more frequent trainer/participant interactions.³
 - As a common guideline, the general theory is that people can only give about 20 minutes of attention before there is a need to take a "mental break." Building a virtual training session agenda around smaller, digestible time blocks/chunks (i.e., 20 minutes) where the trainer covers a clearly defined topic and conveys a limited number of key messages helps to maintain training participants' attention and prevents fatigue.
 - Following a 20-minute segment, a mental break should be provided to allow for consolidation of the new information. Ideally, this should be followed by 10 minutes of processing time.

¹ Main Sources: [Virtual Facilitation in Practice-Building Virtual Sessions for Success](#) (Source: Deloitte, March 2020); [5 Things To Consider To Find The Optimal Length Of A Training Course](#) (Source: eLearning Industry, September 2, 2017, by Jeff Morgenroth, J.); Also see Section IV sources.

² Main Sources: [Want Your Training to Survive? Give It CPR](#) (Source: *Training Magazine*, March 22, 2016, by Bob Pike); [The Why Behind The How: The Research Behind Participant-Centered Training Part 2](#) (Source: The Bob Pike Group, November 12, 2013); Also see Section IV sources.

³ Note: Eye contact via video is not real eye contact, even if the video is two-way. One cannot see another person's body language on a webcam and is not catching the other person's eye. Video lacks the emotional impact a face-to-face interaction carries, so trainers/facilitators who are used to being face-to-face when training cannot expect the same engagement results virtually.

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and 10 mins reinforcement, elaboration, and summary. This can help produce a better relationship between learning and recall.

- Virtual trainers need to more frequently involve their participants. Trainers should ask more questions than they would in a face-to-face class. As a rule, trainers should provide some type of engagement every three to five minutes (e.g., ask questions about the framework, check in on participants' understanding of concepts, or reflect on application).
 - This can be as simple as a yes/no question where learners type their one-word answer into the chat screen, or more elaborate like a poll or a brief small or large group discussion.
- Research and theories on adult learning related to brain-based learning, multiple intelligences and emotional intelligences corroborate Pike's rule for how often people need to be involved with content, participation and revisiting the information during a training session.
- By following Pike's design rule, in addition to learners finding it easier to stay focused, the trainer has frequent opportunities to measure engagement and more flexibility to adjust the lesson/ agenda as needed to meet audience needs.
- NeuroLeadership Institute (NLI) recommends it is best to do even shorter, spaced training sessions (50-55 mins. each) to maximize participant learning (see *Section II*).⁴
- In the end, an online training course needs to be as long as it takes for the content to be adequately delivered. This may mean breaking it up into multiple training session days depending on the content/learning objectives.
 - If the topic allows, planning the training across one or more days allows for reflections in between, gives participants a chance to master what they have learned and to discover information on their own.
- If an online training session is longer than an hour in length, breaks at every hour are critical in keeping participants engaged.
 - A good rule is the 50-10 rule: 50 minutes of learning and then a 10-minute break. This helps participants to focus for a set period of time with limited distractions.
 - Adding visible/scheduled breaks into the training agenda allows for participants to stretch their legs, refill their coffee, answer emails, etc. is key to helping ensure participants can keep their focus throughout a virtual session.
 - Linking breaks with reflection can also help anchor key messages or learnings (e.g., "Reflect on what we just discussed and we will discuss together (or in small breakout groups) upon return").

⁴ [Learning that Lasts through AGES](#) (Source: NeuroLeadership Institute, April 30th, 2019, by Dr. Lila Davachi, Dr. Tobias Kiefer, Dr. David Rock and Lisa Rock); [The 4 Active Ingredients for Long-Term Learning](#) (Source: NeuroLeadership Institute, April 30th, 2019, by Chris Weller)

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II. Virtual Course Spacing-Recommendations from Cognitive Neuroscience⁵

- NeuroLeadership Institute (NLI) has consulted with organizations for about 20 years to help inform design and delivery in a virtual world. As a result, NLI has developed lessons learned/recommendations for shifting in-person training sessions to the virtual environment, including the optimal spacing of courses.
- Cognitive neuroscience research concludes that learning takes time. Instead of cramming information into our heads, only to forget it soon after, neuroscientists have found that the brain really creates long-term memories through a spacing approach. That is, introduce concepts at a steady rate and wait some time before retrieving that information in order to reinforce and strengthen learning content over time.
 - “Designing learning that is cumulative over several days is better than providing a full-day learning event, even when the same amount of content is provided, because it allows for opportunities for sleep and allows learners to reactivate a prior learning context and deepen their knowledge to make it more robust and coherent.”
 - Spacing is challenging because people do forget some things, which makes retrieval harder. The good news is, the harder it is to retrieve a memory, the more learning that is taking place.
 - Spacing is one component of the AGES Model,⁶ which describes a style of long-term learning that helps people focus on the content, engage directly with it, experience positive emotions around it, and take breaks between lessons. When such an approach, research suggests trainers/facilitators will maximize their training participants' learning and accelerate breakthroughs like never before.
 - Components of the AGES Model:
 - Attention
 - Generation (connecting to other things)
 - Emotion
 - Spacing
 - Researchers agree that some spacing is always better than no spacing. How you space may be more of a practical matter within your organization.
 - Three hours of training for one-hour per week for three weeks will be radically more effective than four hours of training in one to two days.

⁵ Source: Webinar-NeuroLeadership Institute (NLI) Learning Audit, June 5, 2020, by Dr. David Rock, CEO of NLI.

⁶ [Learning that Lasts through AGES](#) (Source: NeuroLeadership Institute, April 30th, 2019, by Dr. Lila Davachi, Dr. Tobias Kiefer, Dr. David Rock and Lisa Rock); [The 4 Active Ingredients for Long-Term Learning](#) (Source: NeuroLeadership Institute, April 30th, 2019, by Chris Weller)

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- It is possible to deliver one to two one-hour training sessions (not recommended to go over one hour of training at a time) on the same topic in the same week, three days apart (i.e., Monday/Thursday or Tuesday/ Friday). However, ideally NLI recommends training be delivered at least one week apart, and up to a month apart when focusing on the same topic, ideally revisiting the same topic every two to four weeks. (Note: NLI also recommends delivering training in the morning, by 10:00am or 11:00am at the latest to maximize participant learning).
 - Following NLI's recommended spacing, topics can be interwoven with one virtual training session in the morning and one in the same afternoon, but on different topics/content. This still allows the learner to come back to an earlier topic but after a break to allow that content to be better absorbed.
 - From a neurological perspective this is how books and movies work - stories and characters are woven together to come together into a coherent whole.
 - To enhance learning further, during these two weeks assignments should take place in between virtual sessions (e.g., further reading, reflection, eLearning, engaging with other participants in an online learning community). In addition, the trainer should start each virtual session with a debrief of any homework from the prior session.
 - On the following page is an example of what it might look like to deliver six topics over two weeks (eight days) in multiple one-hour sessions per topic. Three one-hour sessions per topic A-D and two one-hour sessions per topic E-F that were formerly covered in a full day of training are instead broken into two weeks to further learning. As shown below, it is not until the fourth day that participants come back to topics A and B.

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Week 1:

Day	Mon	Tues	Wed	Thurs	Fri
10-11am	Topic A (1 of 3)	Topic C (1 of 3)	Topic E (1 of 2)	Topic A (2 of 3)	
11-2	Could deploy readings or eLearning during this break time; or engage in dialogue via an online learning community site				
2-3pm	Topic B (1 of 3)	Topic D (1 of 3)	Topic F (1 of 2)	Topic B (2 of 3)	

Week 2:

Day	Mon	Tues	Wed	Thurs	Fri
10-11am	Topic C (2 of 3)	Topic A (3 of 3)	Topic C (3 of 3)	Topic E (2 of 2)	
11-2	Could deploy readings or eLearning during this break time; or engage in dialogue via an online learning community site				
2-3pm	Topic D (2 of 3)	Topic B (3 of 3)	Topic D (3 of 3)	Topic F (2 of 2)	

III. Best Practices for Successful Virtual Training⁷

- *Virtual Course Design and Preparation*
 - To be truly effective, live virtual training has to be designed from the ground up as a completely unique style of learning experience.
 - You cannot simply convert a face-to-face course to a virtual one. Instead, you need to “translate” the content into something suitable for an online audience.
 - First, it is important to clearly identify and anchor in the purpose of the training session. Start with developing the learning objectives. Review them to confirm

⁷ Sources: This summary includes themes of best practices compiled from an array of research articles/resources and recommendations from training industry experts and training organizations. For further context and details on these recommendations please refer to *Section IV* of this report for full summaries of the resources reviewed for this report.

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answers to these key questions:

- *What do learners need to know or do at the end of the session?*
- *What skills should they have?*
- *What changed behavior should there be? What do they need to start doing or stop doing?*
- Next, examine each learning objective to decide which ones belong in the virtual class versus which ones might better translate to pre- or post-class activities. In other words, ask if learners need a facilitator to help them with the task or if it's something they can learn on their own.
- Virtual course design includes all the structures, questions, processes, and exercises to support the particular training purpose/learning objectives. Also, design is not limited to just what happens "in the room." It also includes the choices made about how to best prepare the trainers, facilitators, and participants for the course.
- Refer to the 90/20/4 rule (Bob Pike) that online sessions should be no longer than 90 minutes without a formal break, a trainer should teach/lecture for no more than 20 minutes, and the audience should have the opportunity to be involved every four minutes.
 - Design shorter bites of content. Online learning components should be short and engaging while still delivering the information participants need to know.
 - If converting lengthy, in-person classes into virtual ones, break the training class into many smaller chunks and likely multiple sessions.
- Remember to apply good design principles when sequencing activities in your virtual classes. Following a logical order and engaging participants frequently will help them learn.
 - Create a pattern, such as "introduce it, practice it, and apply it," that is repeated throughout the session.
 - Use a variety of interactive exercises and creatively use technology tools to keep participants interested.
- Learners will stay more engaged if the virtual training includes a variety of visuals, interactive elements, an appealing tone and style, and a polished presentation.
 - The building blocks of the training should consist of different formats (e.g., presentation, polls, discussions, group activities).
 - Opt for stories, scenarios, and activities instead of text-heavy presentations.
 - Include multimedia content to illustrate complex concepts, such as short, pre-recorded audio and video segments.
 - Provide participants downloadable handouts for their reference.

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- Ensure the delivery is interactive: Ask questions, facilitate conversation, conduct brainstorming sessions, and use breakout rooms. Introduce participants to nonverbal feedback icons on Zoom to raise their hands, smile, and agree (thumbs up).
- When developing activities, ensure instructions are more detailed than normal and allow extra time on the agenda for providing technical instructions to training participants.
- Depending on the length of the session, build in numerous breaks and dedicate them to different purposes. For example:
 - Use reflection breaks to anchor key messages or learnings: “Reflect on what we just discussed, and we will discuss together (or in small breakout groups) upon return.”
 - Use check-in breaks to reconnect with participants: “How are you feeling about the session so far?” “How might you be able to apply this new knowledge on the job?”
- *Virtual Trainers*
 - Seek energetic, skilled virtual trainers as this can make or break a training session.
 - It is important that the trainer not only has the correct degree of knowledge and experience in the subject area (as well as is clear on the training purpose/learning objectives and what “success” in achieving these looks like) but also knows how to engage a remote audience (i.e., hold the attention of the listener, encourage participation, and build connections).
 - It is critical that the trainer understands that while some skills overlap between in-person and virtual training, the best virtual trainers know that virtual is a completely different medium and will adjust their content and delivery accordingly.
 - The active and thoughtful engagement of training participants in the live, online environment is what will differentiate a virtual classroom from what could have been a recording. It is up to the trainer/co-facilitator to make it about the participants (i.e., moving from monologue to dialogue for the delivery).
 - Questions are a powerful way to engage participants, but effectively asking them in the virtual classroom requires intention and trainer skill. It is not as simple as preparing the questions and then asking them via audio or in a poll.
 - Ensure a co-facilitator (i.e., producer, tech support, co-host) is available to support the trainer on the training day of (e.g., to provide tech support, monitor

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the chat and hand raise functions, assign breakout rooms, provide trainer feedback, and address questions that arise) and is able to participate in an initial pilot of the virtual training course.

- Develop a guide for trainer(s)/co-facilitator(s) that they can use to moderate the virtual classroom.
 - Ensure the trainer(s) and any co-facilitator(s) understand all of the facilitation tools available on their virtual learning platform (e.g., Zoom), their benefits, and how to use them.
 - Be sure to consider the technology capabilities of the trainer/ co-facilitator and of the training audience when selecting activities. Some of the virtual training design will be driven by these technology capabilities (or limitations).
 - For example, if the trainer wants participants to watch a demonstration but their Internet bandwidth is too slow for streaming video, there should be another method planned for backup, such as still screenshots, to show the demonstration.
 - Run a live pilot/test session of the full virtual training session beforehand (e.g., to test technology, confirm the agenda/content can be completed in allotted time, practice agenda transitions, refine instructions for activities, plan for potential hiccups).
 - The trainer/co-facilitator needs to prepare for the possibility that their Wi-Fi may drop during the session and discuss a back-up plan for if this happens.
- *Preparing Training Participants for a Virtual Course*
 - Engage participants in the time leading up to the virtual meeting.
 - Clearly state the purpose/learning objectives of the virtual training course.
 - As appropriate, assign prework to training participants:
 - After reviewing the key learning objectives/goals ask training participants to begin to think about (and even share) what they most want to get out of the course time together
 - Introduce learners to in-session interactivity ahead of time via a job aid or autonomous activity
 - Share a pre-read with participants
 - Assign participants a pre-work activity and collect the outcome to share with participants before or during the session
 - Assess participants' prior knowledge to the subject to gather them around a shared starting point
 - Clearly communicate to training participants how they should set up their learning space. The most effective is from their own computer and computer audio connection, with a headset.
 - Send instructions to invite training participants to join the session 10-20 minutes

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early so they can get comfortable as well as “live check” their audio and video before the session begins.

- Ensure participants have clear instructions on active participation expectations such as understanding when they are to stay muted and raise their hands to be called on and how they can type into the chat box with comments/questions.
- Depending on the expertise of training participants with the virtual platform it could also be helpful to share more detailed instructions (e.g., [Participant Instructions For Zoom Meetings](#)) prior to the session (or have a summary of common technical issues/resolutions for the trainer/co-facilitator to reference and easily copy and paste instructions via chat to help training participants troubleshoot).
- **Virtual Course Delivery**
 - Limit the number of participants (ideally a maximum of 20 to 25 learners) per virtual session.
 - Even if this was shared prior, begin all virtual training sessions by presenting ground rules for active participation. Ensure participants have clear instructions regarding expectations both from a process and a technology standpoint. The trainer or co-facilitator should take the time to explain how the participants can engage during the course (e.g., “If you have any questions, please direct them to us in the chat function and we will bring them up during the session.”), demonstrate how to do so, and check for understanding by inviting people to practice.
 - Remember for virtual training to be effective, greater engagement and interactive learning activities must be incorporated into the experience:
 - Start with training participant interaction within the first three minutes of the session
 - Have something for people to speak to as soon as they log-in to start engagement from the beginning
 - Help teach participants how to learn/interact online by starting with interactive warm-up and icebreaker activities⁸ using the features of the virtual platform
 - Design virtual engagements that embrace what we know about what we all need: human connection, belonging, and the experience of being seen, heard, and understood.
 - Ask everyone to turn on their video camera, if possible, and use Zoom’s Gallery View when appropriate to foster connection and engagement among all training participants.

⁸ Example: Association for Talent Development (ATD) Job Aid-[Three Virtual Classroom Icebreaker Activities](#)

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- Balance opportunities for individual, small group and large group reflection.
- *Breakout rooms*: Include three to five people maximum per breakout room. The recommended breakout time is typically 15 minutes maximum. The longer the breakout, the more structure will need to be provided. Allot two minutes for introductions among breakout group members. Provide clear instructions on how to ask a trainer for help when in breakouts.
- Trainers should remember the value of purposeful silence while virtual classroom participants are responding to questions/prompts. Participants cannot effectively think if the trainer is always talking.

- *Virtual Course Postwork/Evaluation*
 - Make sure to allocate time for session wrap-up: ensure participants confirm understanding of key training messages and that there is alignment on next steps and expectations going forward.
 - Consider asking follow-up questions to operationalize the messages from the training: *“What are the key takeaways?”* or *“How can key learnings be applied in your work going forward?”*
 - Use the last minutes of the virtual session to receive the participants’ real-time feedback on the training session (in addition to having them fill out a more formal course evaluation form after the session).
 - While it is typically less common for virtually led courses, there are benefits in using a continuous learning approach. Consider which follow-up activities and tools (postwork/homework) you can use to complement the virtual training session and what participants can do either in groups or individually offline. Examples include:
 - Most of the time participants will not be able to complete in-class assignments (including discussion questions in breakouts) so ask participants to complete the assignments after the training (i.e., extend the assignments).
 - Develop a list of links to videos, websites, or articles that participants can access if they would like more information about the topic. If appropriate (and if needed with participant permission) also share the digital recording of the training session if a participant wants to review it again later.
 - Offer opportunities for training participants to continue to engage with each other following the training (e.g., pose a chat board question, offer a Google Doc with prompts, or something they can see, build and contribute to following the training session; offer a virtual community space like Workplace for participants to continue to interact and learn from each other).

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- Assign participants homework in which they actively work with learnings from the virtual session.
- Plan follow-up (virtual) session(s) in which the trainer can review the homework and/or provide an interactive activity/discussion that requires the homework to be completed prior, answer training participant's follow-up questions from the session, etc.
- Consider sending participants an evaluation approximately one-month after the training to follow-up on transfer-of-learning.

IV. Summaries from a Selection of Resources on Virtual Training Best Practices

A. Benefits of Moving Into the Live Virtual Classroom

(Source: Moving into the Live Virtual Classroom, Association for Talent Development-ATD, February 2011, by Martyn Lewis)

- According to the widely accepted learning model of the Community of Inquiry (COI) and the work of Karen Swan of Kent State University, there are *three components of effective learning: social presence, cognitive presence, and teaching presence*.
 - *First, the live virtual classroom enables the required social presence where learners can interact with each other and the subject matter experts and facilitators. They can share their observations and learning experiences. They can challenge, debate, and explore concepts in real time. If training requires this level of social interaction, then live virtual is likely the optimal approach.*
 - *Second, live virtual is the optimal approach when the learners lack the time, focus, or motivation to learn the specific topic. The live virtual classroom provides a critical interface that enables us to motivate and inspire these learners to embrace new or different ideas, information, or approaches by providing context for why learning something is important or by making them aware of the tools available to them.*
 - *Finally, and somewhat obviously, the live virtual classroom frees us from having to gather our learners in a physical classroom and hold them captive for the duration of the program.*
- Because the live virtual classroom allows learners to participate from wherever they are located, *we can deliver a program for an hour or two per week over a period of weeks*.
 - *This allows the learner to absorb and apply the new skills, approaches, or behaviors in a way that is more manageable and supports sustained adoption and application.*
 - *It also means that we no longer have to rely on role play and simulation; learners can immediately put new ideas into practice on the job, after each training session, and then learn from each other's experiences, during the live event.*

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- When designed and delivered based on best practices, live virtual training can deliver a greater impact on business results.
 - The drip feed of learning over time—combined with the integration of learning with on-the-job application and coaching—translates into a more effective learning experience, higher retention rates, and a more significant and sustainable change in behaviors.

B. Evaluating Webinar-based Training: A Mixed Methods Study of Trainee Reactions Toward Digital Web Conferencing

(Source: Gegenfurtner, Andreas, Zitt, Alexander, & Ebner, Christian. (2020). Evaluating webinar-based training: A mixed methods study of trainee reactions toward digital web conferencing. International Journal of Training and Development, 24(1), 5-21.)

- **Purpose:**
 - The purpose of the study was to explore and evaluate the reactions of training participants toward digital webinar-based training programs to contribute to the growing body of evidence on digital webinar-based training.
 - In addition to estimating satisfaction levels, a particular interest was in analyzing how the evaluated reactions could be used to generate empirical, evidence-based recommendations for the delivery of webinars in training, adult education and human resource development (Johnson et al., 2011; Wang & Hsu, 2008; Zomenou, et al., 2015).
 - Because the previous literature underemphasized the webinar process and qualitative learner experiences, using a sequential mixed methods research design, this study aimed to explore the reactions of 419 trainees toward 48 webinars in the four content areas supply chain management, industrial management, early childhood education and mathematics.
- **Background:**
 - Webinars are digital tools to deliver training and education through synchronous audiovisual communication among remotely located training instructors and participants. A webinar is a special case of web conferencing that serves the educational function of learning and teaching.
 - Trainees and trainers both report that they are satisfied with or enjoyed participating in webinar-based training (Cornelius & Gordon, 2013; Kear, et al., 2012; Wang & Hsu, 2008).
 - Harned and Colleagues (2014) evaluated webinars in the context of mental health training. *Their findings suggested that participants were most satisfied with consultations from the facilitator and being able to ask questions.*

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- Kanter et al. (2013) used webinars to simulate and train therapy situations. *Their participants reported that they were most satisfied with the synchronous interaction, feedback and support from the facilitators and peer trainees.*
- In a meta-analysis reviewing the effectiveness of webinars for training, Gegenfurtner and Ebner (2019) concluded that *webinars were slightly more effective in promoting student achievement than were traditional face-to-face seminars and asynchronous training in learning management systems.*
- Still, although highly useful, aspects such as the instructional design during the webinar, the training content or how the webinar can be implemented tend to be deemphasized.
- Qualitative studies on webinar-based training exist (Amhag, 2015; Cornelius, 2014; Johnson et al., 2011; Wang & Hsu, 2008); yet these qualitative evaluations tend to have small sample sizes which limit the applicability and generalizability of their findings to other webinar-based training programs.
- **Methods:**
 - The research question was: *what are the reactions of training participants toward digital webinar-based training?*
 - To answer this research question the present study adopted a mixed methods research design.
 - The quantitative part of the study employed a multi-item online questionnaire to measure satisfaction and reactions toward the webinar trainer; survey responses were analyzed to estimate mean differences across webinars.
 - The qualitative part of the study employed narrative interviews with 23 trainees; interview transcripts were analyzed with qualitative content analysis to identify how the instructional design, webinar content and implementation can be improved for future web conferences.
- **Results:**
 - *Trainees preferred greater levels of learner-teacher interaction, less time spent on discussing task solutions collaboratively and digital webinar recordings as a follow-up possibility at home or in the workplace.* Trainees also liked the fact that webinars afforded the possibility to deepen the content, to prepare for upcoming exams and to have virtual consultation hours with the facilitator.
 - *Furthermore, trainees preferred webinars no longer than 90 minutes and webinars on weekdays after work rather than during weekends.*
 - Optimal internet/broadband connections were perceived as a requirement across web conferencing and virtual classroom programs for effective digital education.
 - To summarize, *participants wished for a more learner-centered instructional design with higher levels of trainee-trainer interaction; they asked for less time*

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spent on discussing task solutions collaboratively; and they enjoyed and appreciated the digital webinar recordings as a follow-up possibility.

C. Designing for Purpose in Virtual Engagements

(Source: Essential Partners, Inc., May 28, 2020)

- As we transition our working, learning, teaching, and community- building from the “real world” to the “virtual world,” we are faced with new opportunities, obstacles, decisions, and questions.
 - One way to keep our bearings is by staying grounded in a clear purpose—and letting purpose drive our decisions.
- It is important to clearly identify and anchor in the purpose of the meeting/ training. Without a clear purpose to anchor the work, it is easy to drift away from one’s mission, values, and goals.
 - **Questions for Reflecting on Purpose:**
 - *Why are we bringing people to the table? Who needs to be there?*
 - *What hopes and concerns are driving the work?*
 - *What is at the heart of the matter?*
 - *What is the larger question we are trying to answer?*
- The why—our purpose—should drive all of our design decisions. Design includes all the structures, questions, processes, and exercises to support a particular purpose. But design is not limited to just what happens “in the room.” It also includes the choices we make about how to best prepare the facilitators, hosts, and participants.
 - **Questions for Reflecting on Design:**
 - *What kinds of participation, ideas, actions, emotions, or questions do we want to invite and/or discourage, in the service of our purpose?*
 - *What kind of preparation and pre-work will best support our purpose?*
 - *How will we structure introductions, content delivery, questions, debriefs, follow-up, etc. so that they are aligned to our purposes?*
- It is natural to feel intimidated by the learning curve of a new technology or overwhelmed by all the bells and whistles of video conferencing. Zoom, for example, has several features that can support participant engagement, including a chat box, polling feature, emoji reactions, a hand raise function, and breakout rooms. Each of these can be useful in their own ways but deciding which to use when and how can be a challenge.

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- *Questions for Reflecting on Technology:*
 - *What technological features do I have access to? What do each of them invite? What do each of them discourage?*
 - *If there is more than one purpose for the overall engagement, which one is most important in each particular moment? Which technological feature(s) best support that purpose?*
 - *What other factors require consideration, such as time, group size, technological skill level, ease of use, relationship or trust within the group, frequency of meeting, etc.?*
- The below table is a sample list of tools and facilitation approaches available on many video conferencing platforms. It can help serve as a guide to identify some qualities that each digital tool invites and discourages, and how it might align with your purpose.
 - In different ways, each of the tools below can serve the larger purpose of providing conversational space for the purposes of fostering connection, trust, and mutual understanding, in addition to specific purposes around participant learning, engagement, collaboration, and contribution.

Tool	Invites	Discourages	Purpose
Participant Hand Raise	Order; fairness; clarity of process; nonverbal acknowledgement of a question or comment	Spontaneous, informal comments and questions; interruptions	To create a clearly defined process and order for participants' verbal contributions and questions; particularly useful in larger groups
Chat box	Nonverbal/silent participation; short responses; notifications can be distracting; can invite "side conversations" via direct message	Long-winded or time-consuming answers; texture and tone of voice; fuller storytelling and emotion	To create a nonverbal place to hold questions, short comments, introductions, tech challenges or questions, or serve as the "parking lot;" can be unwieldy in a large group and/or can be useful in getting as many voices in the "room" in a large group
Mute Button	Attention and focus on the speaker; clarity about who is speaking/has the floor; when unmuting oneself, it invites a nonverbal clue that they'd like to speak	Talking over each other; background noises that can distract; noises that can help connect (laughter, breathing, short verbal agreements or affirmations)	To ensure some amount of control over the sound and volume; in smaller groups, it is easier to allow folks to manage their own mute button and/or to encourage participants to leave their microphones on
Breakout Rooms	More private conversations; deeper connection; diversity of group perspectives; more voices in less time; some anxiety and disruption when "zooming" between large and small groups	Connecting with or hearing from everyone in the large group; monotony of view (actual view on your screen) and viewpoints (from 1 speaker to several); perpetuation of the larger group's dynamics	To offer participants a chance to have smaller group conversation or engage in a group activity; this tool is useful regardless of the size of the group, but especially so in larger groups

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Tool	Invites	Discourages	Purpose
Polling	Participation and feedback in an efficient, easy-to-use manner; reflection; an aggregate of the groups' responses	Individual responses; long-winded responses;	To capture participant feedback, survey the group, check for understanding, or do a "temperature check;" this is useful for all group sizes
Go-Round (facilitator calls on people to respond in an order, calling the "batting order" between speakers)	Predictability and order; the facilitator's voice in between each speaker (which may center the facilitator more than usual or interrupt the flow)	Anxiety or uncertainty about how or when it's someone's turn to speak; the first speaker being the same each time (the person most likely to volunteer to go first)	To create a clearly defined process and order for participants' response to a question; particularly useful in smaller (4-12) groups
Pass the Baton (facilitator calls on one person or asks for a volunteer; that person calls on the next person, etc)	Participant ownership over the process and a shared commitment to engagement; unpredictability of the order of speakers; anxiety around pronouncing names, going last, or deciding who to choose	A clear order of speakers and some sense of when it's your "turn" to speak; facilitator as center or singular decision-maker	To create a shared process and order for participant engagement; may be best suited for smaller groups, groups that already know each other, or when the group is self-facilitated
Popcorn (people volunteer to speak when they are ready, through a hand raise or other function)	Participant ownership over process; spontaneity & energy; "building off" others' responses; organic, connected convo; old patterns re: who speaks, when; talking over	An ordered, predictable pattern; participation from those who are less likely to "jump in"	To provide a more organic, connected conversational structure where people speak when they are ready; best suited for smaller groups, where there is more "air time" per person and with agreements or conditions in place that promote sharing air time; or for particular, limited amounts of time within an overall conversation

D. [Adapting Training for the Virtual Classroom \(DECREE Model\)](#)

(Source: Association for Talent Development-ATD, October 2016, by ATD Staff)

- David Smith, author of the October 2016 TD at Work, "6 Steps to Moving Your Training Online," explains Virtual Gurus' DECREE model for adapting face-to-face courses for virtual use.
 1. **Define.** Consider the business need and the learning objectives required to meet it. Determine if the virtual classroom is the best platform for presenting the information.

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2. **Evaluate.** Review existing content to make sure it is still relevant before repurposing it. Also, determine if learners have the technology, they need to take a virtual course, and they understand how to use it.
3. **Create.** Map out the learning journey for participants. What steps will they take to learn the necessary information and skills? What media will they use?
4. **Repurpose.** Prepare existing content for use online. Note that you can't simply convert a face-to-face course to a virtual one. Instead, you need to "translate" the content into something suitable for an online audience.
5. **Engage.** Think about how to engage participants, especially before and after the course. Is there information participants can learn before the course, so they can spend class time practicing? How can you ensure buy-in from managers, so they support participants after the course ends?
6. **Execute.** Deploy the course and evaluate. Go beyond smile sheets, measure knowledge transfer.

E. [Best Practices of Virtual Training Design](#)⁹

(Source: Maxfield, D. (2016). *Virtual vs. Classroom Training*. Training Magazine)

- There are a lot of bells and whistles that accompany the synchronous virtual classroom. Used incorrectly, these tools can deter rather than assist in skill transfer. Not all virtual training is created equal. Through rigorous beta testing, [VitalSmarts](#) found a right and a wrong way to deliver virtual learning. This article includes best practices they have discovered about designing virtual training to deliver the kinds of results found in the traditional classroom experience.
- *Best Practices*
 - **Quickly change learning modalities.** In a traditional classroom, it's typical to change modalities every 15 minutes. However, attention spans are much shorter for virtual learners, so it's best to change learning modalities every three to five minutes to keep people's attention and ensure full engagement. These quick modality changes ensure a lively, interactive experience, while also making it nearly impossible for the learner to multitask during the course. Feedback shows this type of demanding engagement eliminates e-mail distraction and Web surfing during the training—a notorious detractor of skills retention and mastery.
 - **Don't skimp on interaction and practice time.** Deliberate practice of skills and concepts is vital to any successful classroom training and

⁹Maxfield, D. (2016). *Virtual vs. Classroom Training*. *Training Magazine*. Retrieved from <https://trainingmag.com/virtual-vs-classroom-training/#:~:text=Virtual%20Training%20Is%20More%20Like%20Classroom%20Training&text=Specifically%3A,satisfied%20with%20their%20training%20experience>.

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should not be overlooked in the virtual world. And yet, many virtual programs are light on skill rehearsal. Instead, create as much interaction, practice, rehearsal, and feedback as a traditional on-site classroom course. Technology allows for breakout sessions with two or three virtual participants. In the case of interpersonal skills, they can use this time to practice word choice, tone of voice, and other key conversational elements. The facilitator can join these breakout groups to provide instant coaching and feedback to the team.

- **Use virtual tools to increase engagement.** Virtual technology easily allows for polling and quizzing. Not only do these tools drive engagement, but they also test learning and skill retention. Virtual training is also an excellent medium for video-based learning to build skills, demonstrate mistakes, and model correct behaviors.
- **Design for spaced learning.** Sitting in front of a computer screen for hours is much more taxing than sitting in a classroom surrounded by people and interactive discussion. So, account for potential fatigue by reducing the time people spend in front of the screen. The optimal amount to be no longer than two-hour sessions spaced over multiple days. This delivery model also provides more flexibility in scheduling while preventing learner fatigue.

F. Design Recommendations from the NeuroLeadership Institute (NLI) to Improve the Effectiveness of Virtual Trainings

(Source: Webinar-NeuroLeadership Institute (NLI) Learning Audit, June 5, 2020, by Dr. David Rock, CEO of NLI)

- In addition to NLI's tips and recommendations regarding the spacing of course content (see *Section II* of this report), below are some additional tips and content from the NLI applicable to virtual training that are based on cognitive neuroscience findings.
- NLI has consulted with organizations for about 20 years to help inform the design and delivery in a virtual world. As a result, NLI has developed some lessons learned/recommendations for shifting in-person training to the virtual environment.
 - Transitioning from classroom to virtual requires a mindset shift.
 - Refer to the AGES Model (discussed in *Section II* of this report) to support the transfer of a full day in-person training to a new spaced format which neuroscience supports for more impactful trainee learning.
 - Allow for training participants to be on camera as much as possible. The trainer/facilitator needs to challenge training participants and work intently to pick up on and comment on participants' reactions that can be seen when the video is on (when participants know trainer/facilitator is watching them, they will

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pay attention more).

- Make the training session social and encourage interaction among training participants between virtual training sessions (e.g., in an online learning community like Workplace by Facebook, Canvas).
- Instead of focusing on getting through ALL of your training content, instead determine what needs to happen to develop the most critical habits for participants to take away.
 - For example: when training on the topic of “Interviewing” - what are the critical habits (small subset 3-5 total) that participants really need to learn? Start with identifying these on a blank sheet of paper. For example, the top three habits needed for effective interviewing include:
 - Responding adaptively to the situation (read the situation)
 - Asking questions that get to the heart of things
 - Challenging one’s own thinking (bias awareness)
 - Next consider how to develop these three habits:
 - What kinds of *actions* (practice behaviors) would people need to do?
 - What kind of *insights* do people need (e.g., as individuals we all have lots of biases and if we don’t systematically challenge thinking we could develop the wrong idea) to motivate them to create a habit?
 - What is the science and what’s the story (*narratives*) that gives people the insights?
 - The above three questions are the “habit architecture” (see info on the FACT Model™ below for a framework for managing cognitive capacity) which serves as the foundation for the following recommendations:
 - Start with stories and science (narrative) to create insight to get people to take the action to build the habit.
 - Next, consider how to deliver in the most powerful way in a time period of less than one hour.
 - Identify one main habit for each habit. (Note: Typically, a full day can cover no more than three one hour habits).
 - The [FACT Model](#)¹⁰ focuses on cognitive capacity - how/what information you are communicating, how it connects, and the time (given time and attention space with the current environment):

¹⁰ [The Fact Model™: A Framework for Managing Cognitive Capacity](#) (Source: NeuroLeadership Institute, January 2020, Volume 9, by Robyn Catagnus, Michaela Simpson, Heidi Grant and David Rock)

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- **Fluency:** How easy or hard is it to process incoming information?
- **Amount to process:** How much information can we hold in mind at any given moment?
- **Coherence:** How does new information connect to existing knowledge?
- **Time:** How much time does the brain need to process?

Key takeaways:

1. In the digital age, we face daunting challenges related to attention and cognitive capacity.
2. We have unlimited choices of detailed, exhaustive, and exciting information, but the brain is an organism with biological limits that affect processing.
3. Science suggests that people work best when they have essential, memorable, and coherent information.
4. To stay competitive, leaders and organizations must understand and manage the ways **f**luency, the **a**mount of information to process, **c**oherence, and **t**ime (**FACT**) affect thinking.
5. The FACT Model™ offers realistic and straightforward strategies to enhance learning, communication, and understanding in the workplace.
6. The FACT Model™ facilitates better work through better information processing.

FACT MODEL	STRATEGY	EXAMPLES
Fluency	Clear & Sticky	<ul style="list-style-type: none"> • Simplify • Short in length and syllables • High-contrast lettering/images with good spacing • Reduce “busyness” of visuals • Use familiar visuals • Pronounceable language • Rhyming or alliteration
Amount	Reduce & Chunk	<ul style="list-style-type: none"> • Focus only on essentials • Chunk information into larger units • Visualize or draw concepts • Break complex concepts or operations into steps • Reduce multitasking • Regulate speed and flow of information
Coherence	Create Connections	<ul style="list-style-type: none"> • Make explicit connections to existing knowledge • Ask, “Why?” Then “How?” • Ask, “How did others solve similar problems?” • Ask, “What higher and lower-level goals relate?” • Analyze information for the level of connectivity • Reduce redundancies in terms and word meaning
Time	Pause & Digest	<ul style="list-style-type: none"> • Provide more time for complex, abstract information • Give short, frequent breaks • Allow people to process at their own pace • Arrange discussion, thinking, or writing for reflection • Give people just what they need when they need it

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- To expand on the “coherence” in the FACT Model, another NLI publication: [*Coherence-The Architecture of Efficient Learning*](#)¹¹ explores the concept of coherence as it is used in cognitive science and instructional design. In the context of workplace learning, coherence translates to how well the concepts and skills that employees acquire, either self-driven or through explicit instruction, “fit” together with a single learning event, across learning events, and over time.
 - “Given the increased demand and necessity for effective learning strategies to meet the challenges we face in the 21st century business landscape, coherence is a critical psychological concept for learning practitioners to understand and use in their work. Coherence must be considered in the design, development, and delivery of learning programs and events, because coherent learning is more efficient and more effective than decoherent learning. *Coherent learning leads to more robust knowledge and better memory because it enables people to form strong mental models of the information in the form of schemas, which leads to the development of expertise for that content.*”
 - NLI cautions when trainers/facilitators “are motivated to provide learning experiences that their audience will enjoy, they may be prioritizing the learning experience over learning itself: *Effective learning occurs when learners are optimally challenged by new content, work to integrate it with their existing knowledge, and practice new skills enough to internalize them as habits.*” (Note: see p. 10 of *Coherence-The Architecture of Efficient Learning* for NLI’s argument against the use of gamification for learning).
 - Creating coherence is supported by (see p. 15-18 of [*Coherence-The Architecture of Efficient Learning*](#)):
 - *Simplifying the content*
 - *Identifying the patterns and connections across materials*
 - *Filtering content through a single or limited set of conceptual foundations*
 - *Reinforcing and strengthening content over time*
 - *Assign a responsible party for ensuring coherence*

¹¹ [*Coherence-The Architecture of Efficient Learning*](#) (Source: NeuroLeadership Institute, February 2019, Volume 9, by Christine Chesebrough, Lila Davachi, David Rock, Mary Slaughter, and Heidi Grant)

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G. *How to Make Virtual Learning Better, Not Worse, Than In-Person*

(Source: Dixit, J, & Rock, D. (July 2020). *How to Make Virtual Learning Better, Not Worse, Than In-Person*. Neuroleadership Institute)

- NeuroLeadership Institute’s (NLI) research shows that virtual learning, when done right, can be dramatically more effective than in-person workshops. In fact, an analysis of the likelihood of people taking action on a learning program showed that a smart virtual learning program was around six times more likely to get people to take action than the usual way learning is delivered in person. Not 6% better, or 60% better, but 600% better. Here’s why and how:
 - *The Science of Learning*: To understand why virtual learning programs fail and how to make them better, let’s define the purpose of learning in the first place. In the organizational context, the purpose of learning is to change behavior. For change to occur, new learning must be remembered. Now, much of the learning that organizations invest in involves human skills. Things like how to run meetings well, how to give feedback, how to deal with difficult conversations. In these situations, people are under pressure, and if they are going to follow something other than their automatic way of interacting, they will need to recall what they learned very quickly and easily—literally, in an instant, and likely while feeling anxious. Let’s say you teach a manager how to run meetings more inclusively. If that manager is then able to remember what they learned only if they pause to think deeply and consult their notes from class, the program has failed. For learning to be effective, the learner must be able to easily recall it even when they’re tired, behind on a deadline, or anxious about getting things wrong and looking foolish in front of their team.
 - NLI’s research over many years, initially published in 2010 and updated many times since shows that easy recall under pressure is possible only when [four conditions](#) are met during an encoding task: Attention, Generation, Emotion, and Spacing—a framework defined in the NeuroLeadership Institute’s [AGES Model](#). Research has found that the key to effective learning is [activating the hippocampus](#), a brain region that helps consolidate new information into memory. For ideal hippocampal activation to occur, all four AGES components must be optimized, and not just at low to moderate levels, but at very high levels. If any of the below conditions are not high during an encoding task, then the likelihood of easy recall under pressure drops significantly.

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- *Attention:* For learning to occur, participants must pay close attention to what they are learning. High attention means focusing very closely on one thing, with no other distractions.
- *Generation:* Since we form memories by making associations, learning works best when participants generate their own connections to the material, linking new ideas to their own existing knowledge.
- *Emotion:* For memories to stick well, there need to be strong emotions during encoding, which activates the hippocampus.
- *Spacing:* Learning is most effective when learning sessions are spaced out over time, especially when the gap between sessions includes one or more nights of sleep.
- When deployed correctly, virtual learning is capable of activating high levels of attention, generation, emotion, and spacing. Even higher levels than you can in a single half-day or day-long workshop.
 - Instead, unfortunately, many organizations have taken flawed practices from in-person programs and simply migrated them online, making them even worse in terms of attention, generation, and emotion—often at great cost.
- *Most Common Mistakes with Virtual Learning and What to do Instead:*
 - *Mistake #1: Running online learning sessions of 2 to 4 hours in length.* Anyone who has ever had to sit through a long university lecture knows that the [brain loses focus quickly](#). When learning sessions are long, learning is low, since participants are unable to pay attention for hours on end at the level needed for strong memory encoding to occur.
 - The solution: For virtual learning to be effective, sessions should be 50 or 55 minutes long. But that doesn't mean the learning itself is shallow. When learning is designed well, learners can achieve intense [insights](#) in short periods of time.
 - *Mistake #2: Cramming learning into a single session or week.* Most learning programs attempt to cram as much learning as possible into a short period. Back when most learning occurred in-person, that approach made more sense, given the costs of reserving physical space and the time required for facilitators and

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participants to commute to the location. But virtual learning makes it easy to space sessions out over time without incurring extra costs. Since no commuting is required, it is easy to break learning up over multiple sessions on different days.

- The solution: Organizations should make virtual learning sessions shorter and allow more time in between, stretching learning out over three weeks or more. The result is powerful learning that is far more effective than a single session could ever be, because of the spacing effect. It also allows you to make learning more social, a critical factor for success, as we go into next.
- *Mistake #3: Failing to make learning social.* Most learning programs are content to let participants walk out the door and not give material another thought until they return for the next session if there even is a next session. This is a squandered opportunity to leverage the power of social learning.
 - The solution: To maximize recall, learning programs should engage participants' [social networks](#) every week, encouraging them to share what they've learned with teammates, friends, and family. By connecting learning material to social interactions, participants link new ideas to the brain's social memory network, resulting in better recall later. And the effect of thinking other people might be watching you creates positive social pressure. When learning is social, learners encode more richly, recall more easily, and act more often.
- *Mistake #4: Designing for Net Promoter Score instead of behavior change.* Most learning programs are designed to be fun and popular. But since effective learning is effortful, such programs are often ineffective. In fact, learning that really sticks tends to involve [making people feel mildly uncomfortable](#), given this means participants likely experienced strong emotions.
 - The solution: Rather than trying to create content people will like, focus instead on activating habits. That means not just teaching skills, but also gauging a program's effectiveness by [measuring change](#)—as NLI does with the [Behavior Change Percentage](#) metric.
- *Leverage the moment:* This is a unique moment. Even as the coronavirus pandemic inflicts tremendous pain and hardship in our

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society, it is also unleashing newfound energy and motivation in organizations.

- With so many processes in flux, employees are more willing than ever to do things differently. But the momentum of this crisis will not last forever.
- Leaders should seize the opportunity to redefine their approach to virtual learning before the energy dissipates. How should we rethink learning and build a better normal? Like many things today, it can pay to follow the science.

H. From Classroom to Virtual: Bringing Social to Distance

(Source: Association for Talent Development Webinar and 5 Keys for Effective Virtual Classroom Training Participant Workbook¹²-May 11, 2020, Webinar by Melanie Proshchenko and Rob Tirsbier and Participant Workbook by Kassy Laborie)

- Comparing webinars to live virtual classroom trainings:
 - Webinars
 - “Lower level” learning objectives
 - Larger numbers of participants
 - Interactive
 - Live Virtual Classroom Training
 - “Higher level” learning objectives
 - Smaller groups of participants
 - Interactive AND collaborative
- The virtual classroom version should not be an exact copy of the in-person training and it needs to be aligned with the objectives.

Moving from Classroom to Virtual

**That activity
won't work
online.**

How am I going to be as effective and engaging in a virtual classroom?

Using virtual tools, how do I facilitate a virtual classroom?

¹² Note: Download tools, resources, as well as platform checklists for Zoom, WebEx, Adobe Connect from the website below: [KassyConsulting.com/resources](https://kassyconsulting.com/resources)

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- Three virtual training delivery components:



- *Platform Skillz*-The first part of being a virtual trainer is to pay attention to your platform skills and using the ACT process to learn it (A=Access-let me in!- Identify what's available/start a test session; C=Click on everything-start with menu bar and work your way through.; T=Team up-a person or a second computer-help them access everything/guide them to click through)
- *Engaging Voice*-The second part of being a virtual trainer is paying attention to your voice. It is about awareness and how powerful your voice actually is and how you need to pay attention to it in this environment:
 - Tone
 - Pace
 - Annunciation
 - Clarity of meaning
 - Clarity of sound
- *Active Participants*-The third part of being a virtual trainer is to find ways to keep people active and engaged during online training, virtual classroom, webinars.
- *Tips for instructional design:*
 - Instructional design matters even more online. Be prepared with a design that is specific to the online experience.
 - Create an active versus passive learning experience (e.g., resist reading slides to the participants).
 - *Identify the goal and objectives:* What needs to be accomplished and what does it look like?
 - *Determine what's social:* What objectives are best completed live, with other people?
 - *Map the interactions to the features:* Which features of your live online platform allow those interactions?
- Below is an excerpt from [A Facilitator Guide for Virtual Instructor Led Training](#) (Word Doc)(from Kassy LaBorie Consulting, LLC) as a resource for facilitators (i.e., virtual

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trainers) and producers/technical support (i.e., co-facilitators):

Overview: Give a brief overview of what is happening during this time, such as The Warmup is intended to get learners focused on the topic and used to engaging with the technology, the facilitator, and one another.

Put one more carriage return after the last line of text.

Slide or Media	Facilitator	Producer/Technical
Re-size picture to 2.1 wide; height will self-adjust		
	<p>TRANSITION: Start the transition text here. Put one more carriage return after the last line of text.</p>	
	<p>TRAINER'S NOTE: Copy this row and drop it in the table where you need it. Delete this row if unneeded. (10 pt font – intentionally)</p>	

- The producers/technical support (i.e., co-facilitators) should focus on logistics, administration, and features. Their main tasks are to:
 - Get everyone connected
 - Troubleshoot the features
 - Assist facilitators (i.e., virtual trainers) and participants
- *Training participants*-First they need to know how to be in the environment (need to consider learner skill level with content *and* technology), then how to virtually learn while they are there.
 - **Environment**
 - Comfortable and distraction free, able to be unmuted
 - Ready to be on webcam and participate
 - Have snacks, a drink, and a way to take notes
 - **Audio**
 - Use a headset: avoid just using the computer mic and speakers
 - Computer audio or phone? Teach them the difference
 - Be unmuted to freely contribute, but mute as necessary

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- Communication
 - Include frequent engagement and participation, see below examples:

Strategies for Hands-on Activities

- Real-time brainstorming
(Google Docs, Dropbox Paper, MURAL)
- Online polling with word cloud generation
(Poll Everywhere)
- Virtual collaborative workspaces - during and after training (Slack)
- Screen sharing / application control
(Zoom, GoToMeeting, WebEx)
- Virtual flip-charting with screen mirroring
(iPad + Zoom)



- Encourage participants to use the nonverbal feedback icons to raise hand, smile, and agree
 - Converse using chat so that it feels like a discussion. Allow and create “chatversations.” Enable public chat, and ensure it is used for more than just questions.
 - Build activities to encourage dialogue
 - Collaborate using annotation tools (e.g., “Let’s whiteboard our ideas”) and call on people to share
 - Include opportunities for reflection (group/individual) and application
 - Have solo work time – and participants can post questions in chat during solo work.
- Other
 - Provide fillable templates and/or a participant workbook
 - Use a countdown timer in Zoom
 - Use of breakout rooms/sessions:
 - No more than three to five people per group
 - On the agenda, allot one extra minute in case of technical issues and two minutes for participant introductions
 - Prepare participants prior to sending to breakout rooms, for example:
 - *“In a moment we will go to breakout or small groups. Each room has its own screen, audio, whiteboard tools where you can interact freely in the space. If you have a question, click “Ask for Help” and then “Invite Host” so I can assist. While in breakouts, we will keep time and let*

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you know via a broadcast message when it is time to return to regroup."

- o Potential breakout instruction training template:

Breakout Group Activity

1. Quickly introduce yourself (30 seconds)

2. Identify spokesperson

3. Review curated ideas

4. Brainstorm the following:

- Virtual facilitation tools
- Virtual facilitation best practices

5. Spokespeople contribute to GoogleDoc

- In Zoom the host can visit breakout rooms to see how discussions are going/answer questions
- Example of doing the activity as a virtual breakout session versus in-classroom groupwork:

Moving from Classroom to Virtual



Activity: Coaching Practice



Activity: Coaching Practice

Method: Triad groups in-classroom

- Exercise uses round-robin style
- Each participant takes notes in workbook

Imperatives:

- Time management is important!



Method: Triad groups in ZOOM breakouts

- Exercise follows same rhythm
- Each participant records practice

Imperatives:

- Instructions are important!
- Provide tools and templates



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I. [Convert Your Classroom Training to Virtual Training-Three Common Mistakes to Avoid and Three Simple Recommendations](#)

(Source: Association for Talent Development-ATD, February 2018, by Cindy Huggett)

- Three common mistakes to avoid when making classroom training content virtual-ready:
 - *Mistake one is taking an interactive, instructor-led classroom program and turning it into a presentation-style webcast.*
 - This happens if you are short on design time or if you do not have skilled designers who are able to thoughtfully repurpose the program.
 - While it may be tempting to just take the program slides and dump them into an online classroom, don't.
 - Keep in mind that you are converting a training program, not a presentation. Just because participants are dispersed does not mean that your live online class should be a lecture.
 - Remember what you know about adult learning and how to engage participants. Those guidelines apply to all types of training, including virtual.
 - Your virtual training design should be just as engaging and interactive as if it were delivered in person.
 - *Mistake two is thinking that an eight-hour, instructor-led class will be an eight-hour, live online virtual session.* The reality is that one minute of classroom time does not equal one minute of virtual time.
 - Most live online classes are 60 to 90 minutes long.
 - That means an eight-hour class would be broken into smaller chunks of time, with a mixture of self-directed and facilitated activities. Also, the activity times will differ in the online program.
 - When you convert in-person classes, especially lengthy ones, recognize that you often can find ways to shorten activities and economize time. While every activity may not move faster, you can use technology tools to your advantage.
 - For example, in an in-person class, you might have participants go around the room and introduce themselves one by one. But in the virtual classroom, participants can type their introductions in the chat window. The in-person introductions could take more than 20 minutes, while the online chat introductions might only take two minutes.
 - On the other hand, when showing a video during an in-person class, the facilitator can just dim the lights and click "play." But in

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the virtual classroom, the facilitator needs to set the stage for the video, explain how the video will play, mute everyone, and give instructions in case of technology issues.

- *Mistake three is to inflate the number of participants in the live online class.* Most traditional in-person training classes are designed for a small number of participants. Usually, programs have 10 to 25 participants, depending on the subject matter and other logistics.
 - The temptation to vastly increase participant numbers in the equivalent live online class seems difficult to resist. But just because you can put hundreds of participants in an online classroom does not mean you should.
 - It is possible to have an interactive session with large participant numbers. However, you lose out on the small-group dynamic that is often necessary in a training class. And perhaps more important, if your training design is for a small group and you apply it without modification to a large group, you will not achieve the intended learning outcomes.
- After knowing what common mistakes to avoid, here are *three simple steps* to convert traditional training classes to the live online classroom:
 - *Step 1: Start with the learning objectives.* When you are ready to adapt the program, the best place to begin is with the learning objectives.
 - Review them to confirm your answers to these key questions: What do learners need to know or do at the end of the session? What skills should they have? What changed behavior should there be? What do they need to start doing or stop doing?
 - Then, examine each learning objective to decide which ones belong in the virtual class versus which ones might better translate to pre- or post-class activities. In other words, ask if learners need a facilitator to help them with the task or if it is something they can learn on their own.
 - For example, could participants read a case study on their own and then come to the class for a small-group discussion about it? Or could they watch a demonstration video on their own and then come to class to role-play it?
 - The ability to chunk and break down components of your in-person program into a well-designed blended curriculum is one of the greatest benefits of converting to the virtual classroom. It provides flexibility and a better overall learning experience.
 - Think of your program as a set of building blocks that can be pulled apart and put together in different ways. You can chunk the class into topics or sections and then build it back together in ways that make the most sense to your participants and their

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learning needs

- *Step 2: Select the best activities for each learning objective.* Once you have determined which learning objectives belong in the live online event, the next step is to select the best activity/activities for each one.
 - The process of selecting activities for a virtual program is like the process for a traditional training class. What is different are the tools available in the virtual platform: chat, polling, emoji reactions, a hand raise function, whiteboarding, breakout rooms, file transfers, annotating, etc.
 - Some activities in a traditional training class easily translate into the live online environment.
 - For example, a paired discussion activity could become an online paired chat activity. Or a classroom competition between teams to answer questions could become an online competition using poll questions. Or a small group brainstorming session could become a breakout activity. And a live software demonstration could become a virtual demonstration through screen-sharing.
 - Your use of the technology tools is only limited by your imagination and creativity.
 - Also, think about ways participants can use all of the online tools available to them.
 - Have participants "raise their hands" when finished with a worksheet exercise.
 - When asking questions, direct participants to respond via chat.
 - When surveying the group, create challenging poll questions to check for knowledge or get participants thinking.
- *Step 3. Engage participants with tools and dialogue.* The biggest benefit of virtual training is that participants do not need to leave their workspace to attend a class. However, it is also the biggest challenge. Distractions abound, and participants may be tempted to multitask.
 - An interactive design is one of the best ways to overcome this obstacle.
 - Create a program that engages participants at least every four minutes. Keep their attention on the screen and away from the distractions around them.
 - Of course, your goal is not to keep participants busy, but to engage them in their learning. As you design for interactivity, ensure that everything in the class leads toward the learning outcomes.

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- Pay special attention to the opening moments of your virtual session. Within the first few minutes, participants will decide if they will stay engaged or if they will turn their attention to other things.
 - Planning a meaningful and engaging activity within the first few moments of class will start you off on the right foot and will set the tone for an interactive session.

J. [Virtual Facilitation in Practice-Building Virtual Sessions for Success](#)

(Source: Deloitte, March 2020)

- **1. Engage participants before the virtual session**
 - Engage participants in the time leading up to the virtual meeting, so during the meeting you can focus on topics that are important.
 - Virtual sessions cannot last a full day. Therefore, you need to start delivering messages before you meet online, in order to conduct more qualified discussions live with the group.
 - Levers to use in your virtual session:
 - Share a pre-read with participants
 - Assign participants pre-work and collect the outcome to share with participants before or during the session
 - Assess participants' prior knowledge to the subject to gather them around a shared starting point
- **2. Appoint selected participants to role model active participation**
 - In virtual sessions, it can be difficult to get the discussion flowing, and asking or answering questions can be intimidating for participants - especially opening the floor with the first question.
 - Try assigning an active participant role to a few participants. This will help spur interaction and encourage other contributions.
 - Levers to use in your virtual session:
 - Agree to an opening question with a selected participant in the meeting and agree if it should be raised verbally or via the chat function (in accordance with the ground rules for the session, see point 3)
 - If people are still reluctant to participate, call on the agreed participants during discussions to participate
- **3. Establish ground rules for active participation**
 - Begin all virtual meetings with presenting ground rules for active participation. A successful virtual meeting should be dynamic and allow for dialogue. This requires preparation and engaging presentation on the presenter's end and active participation on the participants' end.

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- Aligning expectations for the virtual meeting emphasizes the responsibilities of each party.
- Levers to use in your virtual session:
 - The ground rules of the virtual session should establish how participants are expected to participate (verbally, in the chat function, raising a hand, etc.) and when (at designated time outs vs. whenever during the presentation)
 - For example:
 - Voice your curiosity in the chat function
 - “Today’s session is about the art of the possible—open your mind to be receptive to new ideas or ways of thinking. If you have any questions, direct them to us in the chat function and we will bring them up during the session.”
 - Join the discussions
 - “Actively participate in the discussions—ask questions, challenge viewpoints, but make sure you mute the microphone when you are done speaking. You may also be asked to share your thoughts on the current subject.”
 - Use the breaks
 - “We have added small breaks throughout today’s session to allow for entertaining kids, get another cup of coffee and refresh. During the session, tune in and turn off, limit distractions by saving emails and muting your phone.”
- **4. *Divide your session into smaller, digestible time blocks***
 - A challenge with virtual meetings is that participants can quickly mute and zone out.
 - To maintain participants’ attention, build your agenda around sizeable time blocks of no more than 30 to 45 minutes and preferably less during which you cover a clearly defined topic and convey a limited number of key messages.
 - Levers to use in your virtual session:
 - If the topic allows, plan the meeting across one or more days to allow for reflections in between
 - Try to ensure strict time blocks to discuss specific topics to prevent participant fatigue
 - Ensure that the building blocks of the meeting consist of different formats (e.g., presentation, discussions, group work, polls)
- **5. *Use breaks strategically to support session objectives***
 - Adding breaks in your agenda to allow for coffee refills, reflection on key messages or to answer emails is key to ensure that participants can keep their

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focus throughout a virtual session. Depending on the length of the session, build in numerous breaks and dedicate them to different purposes.

- Also consider whether the breaks should be taken individually or in groups in assigned breakout rooms.
- Levers to use in your virtual session:
 - Use reflection breaks to anchor key messages or learnings: “Reflect on what we just discussed, and we will discuss in plenum/breakouts upon return”
 - Use check in breaks to reconnect with participants: “How are you feeling about the session so far?”
 - Use virtual breakout rooms to allow for group discussions

6. *Build in participation by using the right tools at the right time*

- Encourage reflection and interaction actively throughout the virtual session to anchor key messages and to engage participants in discussions. Virtual tools can support active involvement of participants during the session; for example, Mentimeter allows you to conduct polls, ask open questions, multiple choice, perform Q&A, etc.
- Levers to use in your virtual session:
 - Multiple tools support asking and answering questions virtually in a structured manner (e.g., Slack and Mentimeter)
 - Think about how you can ask different types of questions before breaks and after breaks discuss answers to spark engagement and involvement

7. *Use videos, pictures, and graphics to deliver your messages*

- Much of the energy we build when facilitating in-person centers around the physical energy we bring to the room. This becomes more challenging when you are virtual. Use visual levers to convey or support your key messages, such as videos, pictures, and graphics. Too much text on slides causes participants to split their attention between reading and listening. Try to limit the word count and stick to the headlines.
- Levers to use in your virtual session:
 - Create more slides with less text. If possible, work with two versions of the same presentation; one which you show during the meeting with less text and more visuals, and a second which contains the relevant text and is shared with participants afterwards

8. *Encourage co-creation through digital whiteboards*

- Using digital whiteboards during the virtual session can increase collaboration between participants and the presenter. Allowing participants to actively contribute to the session builds engagement and sustains attention. However, remember that working with digital whiteboards requires clearly defined rules, (e.g., who writes on the board - only the presenter, all, or selected participants?).

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- Levers to use in your virtual session:
 - Set up a digital whiteboard
 - Decide whether to use a blank whiteboard page or a pre- defined template (e.g., brainstorm board, root cause analysis board, etc.)

9. *Allocate time to receive feedback on the virtual session to improve*

- Use the last minutes of your virtual session to receive the participants' feedback on the session. Learning how to best work virtually takes time, and you can only become better as a facilitator if you directly request feedback. Make sure to have time for a thorough wrap-up, get participants to confirm that key messages have been understood and align on next steps and expectations going forward.
- Levers to use in your virtual session:
 - Set up a quick evaluation scheme to request real-time feedback on your session
 - Consider asking follow-up questions to operationalize the messages from the presentation: "What are the key takeaways?" or "How can key learnings be applied in our work going forward?"

10. *Think beyond just the virtual session to anchor key messages.*

- While full-day virtual sessions can seem necessary to cover a particular complex or wide topic, the same outcome can be reached by thinking beyond just the virtual session. Consider which follow-up activities and tools you can use to complement the virtual session and what participants can do either in groups or individually offline.
- Levers to use in your virtual session
 - Assign participants homework in which they actively work with learnings from the virtual session
 - Plan follow-up (virtual) sessions in which you go through the homework, answer FAQs based on the session, etc.

K. [*The Hard Truth: You Aren't Engaging*](#)

(Source: *Association for Talent Development-In Focus*, February 2019, by Kassy Laborie)

- For virtual classroom trainers how you ask questions and engage participants can make or break your online training sessions. If we cannot get people to effectively respond to questions, how do we know they are learning anything?
- "What have you seen the most effective and engaging virtual facilitators do to engage their participants?"
 - The answers always include variations on "asking questions."

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- Questions are a powerful way to engage participants, but effectively asking them in the virtual classroom requires intention and skill. It's not as simple as preparing the questions and then asking them via audio or in a poll.
- Here are three common mistakes virtual facilitators make and three solutions to those mistakes, creating an intentional and invigorating live, online program.
 - *Mistake 1: You are not using the features of the online training technology to your advantage.*
 - *Solution:* Learn exactly how the technology works and then use it to create the virtual nonverbal communication you need. Too many virtual trainers rely solely on the audio or webcams to create interaction. It's not enough, and people are not comfortable cutting each other off, speaking out of turn, being unexpectedly called upon, or staring into a webcam for hours on end.
 - There are many features beyond audio and webcams you can use in today's online platforms; whiteboards, chats, polling, feedback tools, and breakouts are common. Learn exactly what each tool has and use the features to facilitate the questions.
 - *Mistake 2: You are posing questions that only ask people to respond rather than think.*
 - *Solution:* Ask participants thoughtful, "learning-focused questions" (see table below). Many virtual facilitators fall into the trap of asking questions that get participants to click on something but do not actually require them to think. These types of questions fall short of asking them to contribute in a meaningful way.
 - Consider this low-level question and subsequent statement from a typical live online training: *Who knows a great presenter? "Raise your hand. Great, I see many of you know at least one, so let's move on and examine the things a great presenter chooses to do."*
 - It is not a poor choice to deliver this question as a starter, although clicking on the feedback buttons of green check mark; red X; or thumbs up, thumbs down is more effective because it gets everyone to respond rather than just those who respond with a yes. But it's not enough engagement to stop there. You're missing the opportunity to learn more and personally connect with participants, something exceedingly important with an online audience who often already feels disconnected because the course is virtual.

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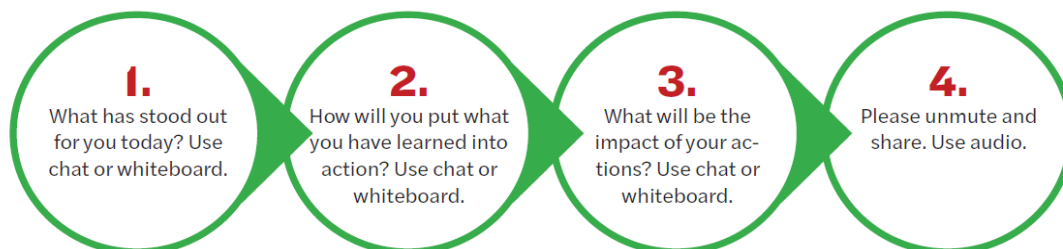
- Instead of moving on, follow up with a request for participants to explain or share.
 - For example, use the chat feature to ask participants, *"For those of you who have recently seen a great presenter, type one thing in the chat they did that made them great. I'll call on a few of you to share over the audio."* Once you receive several responses, call on a couple of participants to share their experiences, inquiring how it made them feel and what they learned from the presenter.
- Leading questions are also a problem because they discourage participants from thinking for themselves. These questions have an agenda and can seem focused more on the trainer than the participants.
 - For example (from a course on leadership), *"Who has worked with a leader who knew how to make you feel important, and you enjoyed working for them so much that you stayed on that team longer than originally planned? Raise your hand."* Participants who think of a leader who made them feel important will have their own thoughts on why. It is not necessary to assume that it was connected to their length of time on the team. This question seems to be more focused on what is coming on the next slide rather than the participants' experiences in general.
- **Learning-Focused Questions:** Consider the model on the following page for employing learning-focused questions and technology in the virtual classroom.

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Action	Technology
Ask a question to gain insight into the levels of experience with the topic: <i>"Who knows a great presenter or has recently had the pleasure of seeing one in action?"</i>	Feedback tools: Use these to request all participants to answer yes or no. <ul style="list-style-type: none"> • Green check mark, red X • Thumbs up, thumbs down • Type yes or no in chat Resist using "raise hand," because only some participants will answer.
Follow up with a request for participants to explain or share: <i>"For those of you who have recently seen a great presenter, type one thing in the chat that the presenter did that made them great."</i>	Chat: Ask participants to send a public chat message. Use purposeful silence so participants can think while typing their response.
Call on a few people to explain their answers: <i>"Sam, you noted that your presenter asked relevant questions. Please share an example of one and why it worked to engage you."</i>	Audio: It's respectful to let participants know you will be asking them to share in greater detail via the audio. To make this comfortable, use icebreakers ahead of time. Guide participants to unmute themselves. This presumes they have connected properly to the session and know how. Require it and teach them, if needed. This also presumes your session is a smaller group, not a large audience webinar.

- *Mistake 3: You are not listening to their responses, so you are missing coaching opportunities.*
 - *Solution:* Facilitate thoughts and ideas rather than giving answers or only encouraging interaction.
 - *"Great, thank you for all your chats. I agree. We can all be better presenters."* Responses like these stop people from thinking about the topic any further. It's not enough to ask for a response and then thank people for sharing. It's even worse to assume you know what each person really meant based on a few words they typed. Make your learning events less about you and more about participants with this questioning strategy:

Four-Step Debrief Questioning Model



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- 1) Encourage them to think and reflect on what they have learned or what really stood out. Type that in a chat or on a whiteboard.
- 2) Ask how they will use what they learned or put into action what stood out. Have them type one action in a chat or on a whiteboard.
- 3) Take it a step further by asking what the impact on their actions will be. You could phrase this as, *"How will this affect your organization? What will change as a result of your action?"* Again, have them respond using the chat or on a whiteboard.
- 4) Ask a few participants to unmute and share their ideas with the group. Encourage them.
- Be sure to build time to ask questions and to allow enough time for participants to respond. Consider your content and which objective participants can best learn in a social setting or in the live, virtual classroom.
- *Purposeful silence*: Be sure to use purposeful silence while virtual classroom participants are responding. Participants can't effectively think if the trainer is talking the entire time.
 - Mute yourself and let a few responses come through first.
 - The article's author waits for approximately 75 percent of the participants to respond before beginning to talk. Once she begins, she does so carefully, with awareness that some are still typing their thoughts.
 - Begin with an overall statement of what you generally notice the participants have added before narrowing in on the comments you wish individuals to expand on via the audio.
- A live training session relies on an audience, so it is up to you to make it about them. Their active and thoughtful engagement in the live, online environment is what will differentiate your virtual classroom from what could have been a recording.

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L. *Making Virtual Learning Work!*

(Source: Association for Talent Development-ATD, May/June 2016, by Jennifer Hofmann)

- Since the introduction of the virtual classroom, improper design for live online sessions has inadvertently taught participants that virtual sessions are akin to free time—an opportunity to listen intermittently while checking and responding to email and taking care of other light duties. Often participants are so accustomed to this free time concept that they are annoyed when the facilitator of a live online session asks for their participation.
 - Unless you provide meaningful engagement every three to five minutes, you can be certain participants will get bored and distracted. Just like a traditional classroom, participants in a live online setting can get restless and tired and lose interest quickly if it is not immediately apparent the session will be worth their time.
 - Live video is a good way to engage participants, but it should be used sparingly, perhaps at the beginning of a session to introduce the facilitator and then again at the end for Q&A.
 - Overuse of webcams deadens the effectiveness of live video and can be distracting for participants. That said, some content can be enhanced by video, such as demonstrating effective body language to use during an employee review.
 - Video is not a replacement for face-to-face interaction. Eye contact via video is not real eye contact, even if the video is two-way. You cannot see the other person's body language on a webcam, and you are not catching the other person's eye. Video lacks the emotional impact a face-to-face interaction carries, so do not expect the same results.
- *How do I make sure virtual learners are engaged?*
 - Training in the virtual classroom can actually be far more engaging than comparable classes taught in a traditional format. In fact, using an approach the author calls concurrent collaboration, instructional designers can design exercises that encourage all participants to interact at the same time. You would never be able to get the opinion of 30 participants on every question you pose in a traditional classroom.
 - Of course, if you want the same quality from your virtual deliverables that you expect from your face-to-face programs, you must invest the same time and effort, instructional design resources, and needs analysis process.

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M. [Are You Virtually Competent?](#)

(Association for Talent Development's Learning Technologies Blog, April 2015, by Jennifer Hofmann)

- **Mastering the virtual classroom.**
 - You need to strategically think about how to prepare your team to be successful in the virtual classroom. Prior experience as a designer, facilitator, or learner in a traditional classroom does not guarantee success when moving to a virtual environment.
 - Everyone involved in the learning process needs to acquire the skills they need to master the additional competencies required for this environment.
 - You need to know more than just what buttons to press to make the technology work. You need to know when to press those buttons and what type of interactions maximize engagement and learning in the virtual classroom.
- **Virtual instructional designers.**
 - The traditional classroom and the virtual classroom are not the same formats, in the same way that a recorded music video and a live concert of the same band do not result in the same experience. Both are valuable, but each relies on the unique characteristics of the individual environments to maximize impact.
 - To become fluent in the virtual classroom, instructional designers need to develop the following competencies.
 - *Engage participants via interactive and collaborative activities.* It should come as no surprise that regular engagement helps virtual learners succeed.
 - Online, the boredom factor is particularly dangerous.
 - Without eye contact and body language, the facilitator cannot know whether participants are paying attention—and they know she doesn't know.
 - Craft live virtual sessions carefully to battle boredom and its inevitable disengagement. *Virtual classroom engagement comes in two varieties: interaction and collaboration.*
 - Engage learners via various communication methods, including communicating with the facilitator, other learners, and technology.
 - Successful interaction relies on learner input every three to five minutes. The proverbial "kiss of death" for a virtual presentation is muting the phones, disabling the chat function, and holding questions to the end of the hour.
 - Collaboration, on the other hand, is the primary

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engagement technique for virtual training programs.

Virtual training is different from a webinar format in that all learners have an opportunity to collaborate with their peers and practice new skills. Virtual training should consist of hands-on practice, small-group activities, and a variety of assessment methods.

- *Master the technology*—Instructional designers need to be fully aware of the functionality of the virtual classroom (and adept at engaging users via these techniques), including whiteboards, chat, breakout rooms, and application sharing. They also should know less commonly used tools such as shared web content, testing, file transfer, and ins and outs of all the feedback tools.
- **Virtual facilitators.**
 - Virtual facilitators need to add an entirely new set of tricks to their facilitation toolboxes.
 - The question most new virtual facilitators have is, "How do I connect with my learners without the benefit of eye contact/body language?"
 - It really is possible to create a human connection without physically being in the same space. But this takes work; facilitators need to identify cues from their learners that are not as obvious as cues presented in a traditional classroom. And they must invite contributions from learners in much more creative and specific ways.
 - Because learners are not focused on the facilitator's body language, facilitators need to compensate with tone and pace to keep learners engaged.
 - *To become fluent in the virtual classroom, virtual facilitators need to develop the following competencies.*
 - *Master the technology*—Virtual facilitators need to move from whiteboard to chat to application sharing and back again seamlessly—in a way that focuses learners' attention on the content being taught rather than the tools being used to deliver that content. This, of course, takes practice.
 - *Assess and ensure participant engagement*—Facilitators need to expend a lot of energy to ensure that participants are consistently engaged. A well-designed virtual lesson encourages some sort of learner communication every three to five minutes; virtual facilitators take advantage of the design to determine the engagement level of participants. Although there are many techniques to measuring engagement in virtual classrooms, measuring engagement usually is based on two factors:

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- 1) *How quickly or often are learners responding?*
 - When you ask learners to raise their hands, write on the whiteboard, or share ideas in chat, how long does it take them to respond and how many people respond? This is a measurement of quantity.
 - A high number of responses does not necessarily mean learning is taking place but does imply that learners are paying attention to the conversation and are engaged at least at a minimal level.
 - Virtual facilitators learn to gauge the quantity of response to determine the basic engagement level of learners.
- 2) *When learners respond, what is the quality of their responses?*
 - Skilled virtual facilitators also learn to assess the success of an activity based on the quality of feedback and responses the learners are providing.
 - If the questions are in depth, and learners are volunteering stories, facilitators can be reasonably confident the learning activities are meeting their goals.
- Virtual producers.
 - The virtual producer is the support person on the delivery team, the producer is an invaluable resource before, during, and after any virtual training event. This individual is there to support the facilitator, the participants, and the technology.
 - The producer makes the session run smoothly by troubleshooting technical issues for anyone attending the session, loading polls, and even co-facilitating content (which helps change the dynamics with the new voice).
 - In working with the facilitator, producers can cover all the technical elements, which enables the facilitator to do what he/she is there to do: deliver the session objectives and guide the learners through the session content.
 - A producer can help transform virtual training into trouble-free, fast-moving, interactive events that keep learners involved and the facilitator on track.
 - In short, the facilitator can stay focused on content while the producer takes care of everything else. The producer is the safety net that separates a successful live event from one that is chaotic, unorganized, and unprofessional.
 - To become fluent in the virtual classroom, virtual producers need the following competencies.
 - *Master the technology*-Virtual producers not only need to know all the tools available in the virtual classroom and how to use them, but also how to troubleshoot when things go wrong. Producers effectively become the first level of technical support; they address audio issues, assist learners with the use of virtual classroom tools, and communicate

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with the help desk when additional support is needed.

- *Create an instructional partnership with the facilitator*- Producers can provide much more than just technical support. The role can be designed so that the producer and facilitator become an instructional team, both lending their voice to the lesson dialogue, and working together to ensure that learners achieve the desired outcomes. Producers have many tasks that they can take on, including:
 - providing technical support for participants
 - launching polls
 - keeping time checks with the facilitator
 - serving as a backup facilitator.
- *Establish the role of learner advocate*-The producer also acts as a learner advocate, someone who can restate or rephrase questions, both from the facilitator and the audience, that were possibly a little unclear.
 - Often, the producer can be the first to volunteer for an activity or be "the plant" who asks the right questions, which can spark the participants into asking questions of their own.
 - The producer also can be used to alert the facilitator to raised hands or questions in the chat.

N. [Five Factors to Consider for a Successful Virtual Instructor-Led Training \(ILT\) Event \(with learners participating both in the classroom and remotely\)](#)

(Source: Association for Talent Development-ATD, February 2017, by Hugh McCullen)

- **Create an equal environment.**
 - Onsite students and those remotely located should receive equal attention from the instructor.
 - Enable remote students to launch and run programs without interruption.
 - Allow all students to share content and ideas equally (all be encouraged to actively exchange ideas, questions, suggestions, content, etc.)
 - Encourage remote students to interact with fellow onsite students via live chat features, video and private messaging.
 - Seek support from an experienced moderator to oversee and trouble-shoot problems so the instructor and trainees can remain focused on the training.
- **Prep the content.**
 - Ensure instructor content is applicable for both ILT and virtual delivery.
 - Ensure class activities include collaborative opportunities between onsite and remote participants.
 - Augment the virtual learning experience with an element of fun by including games and other learning engagement tools.

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- Promote retention by ensuring learning modules are short with frequent “brain breaks”
- **Prep the instructor.**
 - Instructors should be knowledgeable about and comfortable operating virtual training technology and know what materials and activities work best in a virtual instructor-led environment.
 - Keep physical movement to a minimum and interact with remote and physical audiences equally
 - Ensure all students’ equipment is functioning properly before the start of class.
 - Instructors should also be adept at keeping participants engaged by emphasizing key takeaways and asking open-ended questions that spur additional discussion and reflection.
 - Where available, instructors should utilize file-sharing, chat rooms and virtual breakout sessions to further stimulate remote students’ interest.
- **Prep the student.**
 - Promote the importance of a distraction-free environment (e.g., silencing mobile devices, closing email).
 - Create a “pre-flight checklist” to ensure all systems are functioning and students understand how to operate the interface.
 - Prior to class provide students with tips on effective room environments for virtual training.
 - Prior to the event, provide expectations for each student’s active involvement/participation/learning.
 - Be sure trainees also know how to alert the instructor or a moderator if an equipment problem occurs or if they need to step away from class.
- **Support the event.**
 - Ensure trainees pre-test the virtual system prior to the start of class.
 - Ensure students have proper equipment (e.g., headset, microphone).
 - Moderators overseeing the event should use dual monitors to watch for any technical glitches.
 - To ensure the event’s long-term effectiveness, put together a program of supplementary online exercises and links to content (webinars, video, podcasts, etc.) that reinforce the key points of the event. Many participants also welcome downloadable handouts.
 - Record the event and allow instructors to view their performance and make adjustments in technique to improve future sessions.
 - Provide a post-analysis training report to assess the effectiveness of the event.

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