



How To

A Guide for Training Using Digital Platforms

JengaLab



TechChange



DEVELOPMENT
GATEWAY
An IREX Venture

GUIDE FOR TRAINING USING DIGITAL PLATFORMS

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OVERVIEW

ABOUT THIS GUIDE

Digital trainings offer exciting opportunities to connect adult learners across the globe with critical content that may have otherwise been inaccessible. Whereas traditional (in-person) trainings quickly rack up per-learner expenses due to travel, space rentals, and lodging (among many other potential costs), trainings that are facilitated via digital platforms can efficiently and cost-effectively instruct large numbers of learners. However, digital trainings also have potential drawbacks, particularly related to learner engagement and sustainability. Digital trainings that fail to capture learners' attention will not result in meaningful learning—if they result in any learning at all.

The goal of this guide is to provide key information to support individuals who are designing and managing trainings using a digital platform. The guide will begin by discussing the design process, providing techniques and tips to ensure that learners engage and stay engaged with content. Then the guide will discuss the maintenance process, sharing recommendations for staffing and infrastructure to support a course after it has launched.

MINIMUM PLATFORM REQUIREMENTS

Individuals referencing this guide are using a variety of digital platforms to support their trainings, and many of these platforms may be custom built. While this guide is designed to support individuals regardless of the digital platform they are using, this guide assumes that all digital platforms have the following minimum characteristics:

- The platform allows content to be divided into sections, and users can move forward or backward to access earlier or later course content.
 - *Some platforms, but not all, may also track students' progress as they move through course content.*
- The platform allows the instructional designer to add custom text and images.
 - *Some platforms, but not all, may also support features such as quizzes/polling, embedded videos, or other embedded third-party content.*

While more advanced digital platforms will have many additional features, a lot can be accomplished even with just the minimum features described above, as you will see in the guide below. While the guide focuses on digital training, many of the problem solving, objective setting, and design approaches can equally be applied to the development of analog trainings.

This guide also assumes that readers have already selected or created their digital platform; consequently, this guide *does* not address the development of platform infrastructure.

VOCABULARY

Training Vocabulary

Asynchronous: A learning experience in which learning does not occur in the same place nor at the same time as other students' learning. Learners can engage with content at their own pace, and learning occurs without other students or a facilitator/teacher present. An example might include a recorded lecture with quiz questions.

Blended: A learning experience where there are both synchronous (virtually live) and asynchronous (self-paced) learning touchpoints.

Digital/Virtual: A mode of engagement during which learners are engaging with content via online platforms, such as a video conferencing software or other online platforms.

Hybrid: A learning experience where there are both virtual and in-person learning touchpoints.

In-Person: A mode of engagement during which learners are engaging at the same time, in real-time in physical form.

Self-Paced: A synonym for "asynchronous".

Synchronous: A learning experience where learners are engaging at the same time, in real-time (live). Examples might include a webinar or Zoom call.

Platform Vocabulary

Digital Platform: Any online infrastructure that is accessed via a computer or a mobile phone to facilitate activities such as content dissemination, interactions between users, or data management. Digital learning platforms may include websites, social media, and mobile applications.

Embeds/Embedding: Refers to the process of incorporating media content (such as a video or other material from a third-party platform) within the body of a digital platform so users can access it without having to open a separate page.

Learning Management System (LMS): A software application that delivers and manages learning experiences. Depending on the LMS, additional features may support administration, reporting, tracking, documentation, and/or automation of services related to the delivery of learning experiences. Examples: Canvas and Moodle.

Software as a Service (SaaS): Online infrastructure offered by a third-party vendor, typically via a paid subscription. Examples: Dropbox, Google Workspace, and Salesforce.

ThirdParty Platform: Any platform that is *external* to your main digital platform; this includes any digital platforms that you embed into your platform, link out to, or use alongside your platform. Examples might include video conferencing platforms (such as Zoom) or polling software (such as Mentimeter).

Other Vocabulary

Instructional Designer: An individual who designs and delivers instructional content.

Note: in this guide “**course**” and “**training**” are used interchangeably to reference a learning experience that can be facilitated by a digital platform.

DESIGNING YOUR DIGITAL TRAINING

INTRODUCTION TO ADULT LEARNING THEORY

When designing a digital training, it is often helpful to keep a few key **adult learning theories** in mind. Adult learning theories explain how adults learn and provide best practices for designing courses for adult learners. This section provides a brief overview of three adult learning theories:

- Human-Centred Design
- Backwards Design
- Cognitive Load

Human-Centred Design

Human-Centred Design (HCD) is a popular design and management framework that develops solutions to problems by involving the human perspective in all steps of the problem-solving or design process.

Often, when we begin to design something (such as a digital training), we start with a solution (“I have this idea for a training!”). We then work backwards:

- We identify the problem that this training solves: “It could be a great way to solve this problem”.
- Then we consider the learners who experience that problem: “Learners will love it!”

Human-centred design alters this order to ensure the learner comes at the beginning, not the end, of the problem-solving process. If we start with the solution rather than with our learners, we risk creating a solution for which there is no need and/or does not effectively meet a learner’s need.

How can you implement human-centred design when designing a training on a digital platform?

First, **conduct research**. Go wherever your learners are and ask them about their needs and the pain points related to the learning topic.

Second, use your research to design [learner persona\(s\)](#). Summarise the information from your research into one or two sample learners, representing larger categories of learners. Learner personas should include information such as name, age, gender, location, comfort with technology, challenges, and motivations. Use these learner personas to guide your course design.

Finally, keep your learners engaged **throughout the design process**. Ask sample learners for feedback on key elements of the course, such as the course objectives, the storyboard, and/or a first version of the course. Do not wait until you have finalised the course to hear from your learners.

Backwards Design

Backward design is a method of educational content development that begins by considering the desired learning outcomes, followed by the assessment strategies, before finally choosing instructional techniques to support the desired goals.

While many people designing their first course may be tempted to start by identifying the course content (i.e. the resources, terminology, or subjects), this strategy is likely to result in a course that lacks cohesion and overwhelms participants with the amount of information.

How do you practise backwards design when designing a training on a digital platform?

Before designing any other aspects of the course (such as the outline, storyboard, etc.), identify your **course objectives**. *What do you want participants to be able to do after completing the training?* You should identify **four to five course objectives** that explain what your participants should learn by taking your course, and then use these objectives to determine the course content, including assessments, instructional techniques, and course material.

Cognitive Load

We know that our short-term memory, or working memory, can only take in so much information before it becomes overwhelmed. In other words, a learner can only handle a finite amount of **cognitive load** before shutting down.

This is especially common in online experiences, as it is easier to close a browser tab than it is to, say, physically get up and leave a 200-person lecture hall or meeting. Therefore, it is important to find ways to reduce the cognitive load for learners so that they stay engaged and actually learn.

How can you design a digital training experience that addresses the limitations of cognitive load?

- Reduce redundancy so learners do not have to expend cognitive load identifying what is new information and what has been repeated.

- Organise your content into sections and subsections to avoid overloading your learner with too much information at once.
- Use overviews and summaries at the beginning and end of the course, respectively, to get everyone on the same page. This will reinforce important information and remind participants what they have learned.
- Avoid visual clutter; remove anything that is not meaningful for learners' comprehension of course content.

DETERMINING TRAINING MODALITY: ASYNCHRONOUS VS. BLENDED TRAINING

ASYNCHRONOUS OVERVIEW

What is an Asynchronous Training?

An asynchronous training describes a learning experience in which learning is completely self-paced and does not occur in the same place nor at the same time as other students' learning. Users engage with course content on their own schedule and may do so in any location where they have access to the content. Other students and instructors are not present as a learner engages with course content.

Examples of asynchronous trainings:

- YouTube lectures
- [Khan Academy videos](#)
- [Massive Open Online Courses \(MOOC\)](#)
- An online training module

Many readers of this guide are likely to be designing and implementing *asynchronous trainings* via their digital platform.

The Benefits of Asynchronous Trainings

Asynchronous trainings offer many potential benefits for instructional designers and learners alike.

Benefits for course designers and trainers:

- **Cost Savings:** Because asynchronous trainings do not require physical travel to a location, nor the live presence of an instructor/facilitator, many of the costs associated with traditional trainings are removed or significantly diminished.
- **Scale:** Asynchronous training costs tend to increase only minimally, if at all, with increases in scale; without barriers related to cost, travel, physical space, or facilitator/instructor-to-student ratios, many more learners can benefit from an asynchronous training than would have been possible with an in-person or synchronous training.

Benefits for learners:

- **Cost Savings:** Due to lower development and maintenance costs for the organisation designing and implementing the course, asynchronous trainings can often be offered to students for a low cost—or even for free, as is the case for many online asynchronous courses.
- **Flexibility:** Students can complete the training on their schedule; because it can be accessed at any time and from any place, students do not need to worry about missing a class or about rearranging their schedules. This is particularly important for adult learners, who often have competing priorities.
- **Ownership:** As students have control over how much time or energy is spent on a particular unit/subject, they gain ownership over their learning experience. Students can skip over information they already know or spend a longer amount of time on information that is new to them.

The Challenges of Asynchronous Trainings

There are also notable challenges one encounters when designing or participating in asynchronous trainings.

- **Maintenance:** Instructional designers must be intentional and careful about updating course content; otherwise, course content can quickly become out-of-date without anyone's awareness.
- **Lack of Facilitator/Instructor:** It is hard to create a transformative learning experience without someone there to motivate and inspire students. Studying with an instructor, as well as with other students, can provide significant energy boosts for students, encouraging them to keep going when they may otherwise want to give up.
- **Feedback:** Asynchronous trainings offer limited opportunities for customised feedback. While some feedback is possible (especially for proactive students who use all means necessary to get an answer), user-specific feedback on open-ended, text-based responses is not possible without an interlocutor like a teacher or facilitator.
- **Motivation:** It can be difficult for students to stay motivated and complete an online course without having others to help push them along. Consequently, asynchronous trainings have very high levels of drop-out/incompletion.

The Designing an Asynchronous Training section of this guide provides recommendations related to overcoming these challenges.

BLENDED OVERVIEW

What is a Blended Training?

A blended training combines elements of asynchronous (self-paced) and synchronous (live) learning. The balance between asynchronous and synchronous elements can be determined based on the needs/constraints of a specific training. Examples of blended training include:

- A virtual synchronous training that includes required pre-work and post-work, which participants complete on their own time before/after the training.
- A six-week virtual course with ten hours of self-paced learning and two hours of live sessions where participants ask questions about course content and apply what they have learned in small-group activities.
- A twelve-month virtual training with two hours of recorded video lectures and two hours of synchronous Q&A each month.

The Benefits of Blended Trainings

By combining the two training types, blended trainings can provide a “best of both worlds” scenario that draws on what is great about both asynchronous and synchronous trainings. For example, benefits of blended training include:

- **Engagement/Motivation:** When learners know that they will be asked to demonstrate what they have learned and apply that learning in the presence of other students and instructors, learners are more likely to complete asynchronous course content.
- **Application:** Synchronous sessions provide an ideal environment for students to apply what they have learned during their asynchronous learning. Via small-group activities and full-group discussions, students can reflect on course content, better understand how it applies to the real world, and practise utilising it to solve problems; consequently, learners are more likely to remember course content and successfully apply it in the “real world”.

The Challenges of Blended Trainings

However, as there are challenges to asynchronous and synchronous trainings, blended trainings also have potential disadvantages:

- **Costs:** Compared to asynchronous trainings, blended trainings will likely have slightly increased costs in order to account for facilitator/instructor time during live sessions. These costs can be reduced by keeping synchronous sessions virtual.
- **Scale:** Because blended trainings involve one or more facilitators/instructors to support student learning during live sessions, these trainings can be somewhat more difficult to scale, as facilitators/instructors have limited time to meet with students.
- **Scheduling:** Students may need to rearrange their schedules to attend live sessions while mediating competing priorities. Training implementers may need to consider offering multiple times for live sessions to ensure participants’ attendance.

While not always possible due to the aforementioned challenges, it is highly recommended that trainings be *blended* in order to increase learners’ engagement, motivation, and overall course take-aways.

DESIGNING AN ASYNCHRONOUS TRAINING

DESIGN PROCESS

The process for designing an asynchronous training can be divided into the development of the following key outputs:

- Objectives
- Assessments & surveys
- Outline
- Storyboard

Objectives

The development of any training should start with the identification of three to five **objectives**: *What do you want learners to be able to do after completing your training?*

There are three distinct types of learning you should consider: Knowledge, skills, and attitudes (KSAs). In defining these, you may find that they are intertwined. Often students require knowledge in order to gain a new skill, and their attitude is key to overcoming learning hurdles. Objectives should target *one* of each type of learning.

- **Knowledge:** Includes the recall, recognition, understanding, appreciation, and evaluation of facts, patterns, and concepts; can be measured with written or oral exams where a person documents or explains what they know.
- **Skills:** Refers to the ability to physically perform an activity or task; measured in terms of speed, precision, and/or technique through observation or monitoring.
- **Attitudes:** Refers to a way of thinking or feeling about someone or something; significantly affects behaviour, feelings, values, appreciation, and motivation, but can be difficult to measure.

To start drafting your objectives:

1. First, **brainstorm** the knowledge, skills, and attitudes with which you want learners to walk away from your course.
2. Then **prioritise** each KSA; your course won't be able to cover everything, and you may need to make difficult decisions regarding what to keep and what to cut.
3. Additionally, you may start to organise KSAs into different **hierarchical levels**; for example, certain KSAs may become *sub-objectives*, describing what someone would learn from a specific section of your course, rather than the course as a whole.

KSAs become the basis for objectives. Objectives should be SMART: **s**pecific, **m**easurable, **a**ttainable, **r**elevant, and **t**ime-bound. Consider the following questions in order to draft your objectives:

- **Specific:** What do you want your participants to achieve by the end of the experience?
- **Measurable:** How will you know if your participants have achieved this objective?
- **Attainable:** Is your objective attainable? What external support (including virtual tools) might you need to achieve your objective?

- **Relevant:** Why is this objective worthwhile? Why will it matter to those who will be convening?
- **Time-bound:** What is the timeframe in which you have to achieve this objective?

Consider the difference between these two objectives:

- **Non-SMART objective:** Participants will be able to create amazing, beautiful online courses.
- **SMART objective:** By the end of this course, participants will be able to design relevant, interactive activities that will allow participants to engage in the material while collaborating with peers.

For additional guidance on writing strong course objectives, review [Bloom's Taxonomy](#), which identifies and classifies measurable verbs that can be used to write strong educational objectives.

Assessments & Surveys

Assessments

Following the recommendations of backwards design theory, instructional designers should develop their **assessments** to test student learning before creating their course content. Assessments should test whether students successfully achieved the course objectives. If you are not sure how to test whether a student has mastered an objective, it may mean the objective is not sufficiently specific and measurable.

Kinds of assessments include:

- **Pre-Assessments:** A longer assessment (typically ten to twenty questions, though this is highly variable) that tests what students know prior to taking a test.
- **Post-assessments:** A longer assessment (typically ten to twenty questions, though this is highly variable) that tests what students have learned after taking a test; often, students may be required to pass a post-assessment (for example, with a score of at least 80%) before they can receive a certificate. Instructional designers can compare students' scores on the pre-assessment and post-assessment to evaluate student growth from the beginning to the end of the course.
- **Knowledge Checks:** Brief quizzes (typically one to two questions at a time) that test whether students have learned content that was recently taught. Knowledge checks provide students, as well as instructors, the opportunity to check their progress and confirm they are understanding course material. Failure of a knowledge check indicates that a learner needs to go back and re-review course material (or that the instructional designers need to revisit how they cover the topic and update the course!).
- **Final Projects:** An independent project completed on participants' own time, typically outside of the digital platform (in the "real world"). Final projects can take a variety of forms based on the needs of the course, but typically involve participants applying course content to a real-world problem, then reporting back their results via a creative output. Final projects are optimal if, as part of your course objectives, you want students to be able to apply, analyse, evaluate, or create something after taking the course.

The course objectives, monitoring and evaluation considerations, needs of your training, and needs of participants will all influence what kinds of assessments you employ in your online training. For example, not all trainings include a pre- and post-assessment; if a training does not provide a certificate upon completion and simply offers optional professional development content, knowledge checks may be sufficient for learners to test their understanding of subject matter.

Surveys

In addition to assessments, some trainings include **surveys**. Surveys provide essential insight for instructional designers on the success of their training. Surveys can include the following types of questions:

- **Demographic Questions:** Even if you keep your surveys anonymous, collecting information on factors such as gender, race/ethnicity, or age can support meaningful disaggregation of data when determining course success.
- **Course Engagement Questions:** Ask participants to rate or describe how engaged they were throughout the course. Invite participants to share what could be changed or improved to increase their engagement.
- **Course Objective Questions:** As an alternative to, or in addition to, pre- and post-assessments, a final survey may ask participants to rate their ability to complete the activities described in your objectives. While subjective, participants can share the extent to which they believe the course has achieved its objectives.

Outline

Once you have your objectives and assessments, you can begin a **course outline**. Key steps and best practices to create your course outline include the following:

1. Based on your course objectives, identify key content that students will need to learn in order to achieve each objective and successfully complete assessments. List out all of this content.
 - a. *Recommendation:* Consider using sticky notes—or an online resource for sticky notes such as [Miro](#) or Jamboard—to help you list and organise key content for your course. The course outline often includes significant ideation and revision; this process consequently benefits from tools that allow designers to easily move content around and explore different potential organisational structures.
2. Eliminate topics/subtopics that are not relevant to your course objectives.
 - a. *Recommendation:* Remember the importance of not exceeding learners' *cognitive load*. If you find that you are trying to accomplish too much in your training, you may need to consider breaking the training into multiple shorter trainings.
3. Organise your content in a natural order, usually from the most basic subject matter to more complex topics. Determine the content's hierarchy and organise content into topics, subtopics, and sub-subtopics. Topics will become the basis for different sections in your course, with subtopics and sub-subtopics further chunking key content.
 - a. *Recommendation:* While organising your content, ask yourself: *What do participants need to already know or understand before they can understand a new topic/subtopic?*
4. Identify any resources that will help supply course content or that may be suggested to learners as supplementary readings.

Consider the sample partial outline below, which uses different headings to clarify organisational levels within a course related to online learning.

[module 3] Anatomy of a Good Agenda
[submodule 1] Overview
[submodule 2] Prelude and Icebreakers
[submodule 3] Content
[nested-submodule 1] Planning Content
[submodule 4] Breaks & Energizers
[nested-submodule 1] Breaks & Energizers
[nested-submodule 1] Networking Spaces
[submodule 5] Closing
[submodule 6] Activities
[nested-submodule 1] 1.Participate in an (Asynchronous) Icebreaker
[nested submodule 2] 2. Fix this Bad Agenda
[module 4] Designing for Engagement

Storyboarding

Finally, you are ready to storyboard. **Storyboarding** is the process of writing the course content and drafting the visual elements that will compose your online course. While identifying course objectives and creating the outline are often the most cognitively challenging tasks, storyboarding is typically the most time-intensive, as this is when designers create the text and media that will make up the training.

Storyboards do not need to be highly complicated; a Word or Google document often works well, with headings to indicate different organisational levels. When choosing where to draft your storyboard, just make sure you are using a system that easily allows you and others to edit content and provide feedback. Once content is in an online platform, it is often challenging to make significant edits or changes; your storyboard should allow others to easily review, and you should be able to easily revise content and organisation.

There are no sequential steps that designers need to follow. However, storyboarding does often involve different activities, each of which will likely happen throughout the storyboarding process. The storyboarding activities described below assume you are storyboarding for a platform that is primarily text-based, with opportunities to add other graphic elements or media.

- **Do research:** You have likely already done significant research as you prepared course objectives and the course outline, but storyboarding often involves further research as you build out each section and fill gaps. Research might also involve conversations with subject matter experts for their advice, content knowledge, and course review.
- **Write the course content:** For each (sub-) subtopic, write out the precise text that you plan to use within the online course.
- **Identify needed media and graphics:** Media content such as videos, photos, or interactive elements can go a long way in transforming learners' engagement. As you write content, note

where media can be integrated into the course, using different coloured text or some other notation to keep track of where you want to add media elements. Consider where graphics can replace text or where stock photos can increase the visual appeal.

- **Find and track existing media/graphics:** While you are doing research, you may come across open-source images or media that could support course content. Consider a spreadsheet or another organisational method to keep track of this content, including links to where they were accessed and where in the course they will be used. You might also search sites such as [Pexels](#) (which offers free stock photos) or [Flaticon](#) (which offers free icons) to find generic photos that can increase your course's visual appeal.
- **Draft media or graphics elements to be created:** Some media may need to be created from scratch; while storyboarding, you should begin drafting new graphics or scripting new videos. Simple software, such as Google's drawing tool, can be used for these initial drafts, which should then get passed along to graphic designers or a creative team for finalisation.

Consider the following example partial storyboard, which uses different colours to call attention to different hierarchical levels and to locations where we still need to find media elements:

[module 3] Anatomy of a Good Agenda

[submodule 1] Overview

[nested-submodule 1] Overview

Each of the four components that make up the 'Anatomy of a Good Agenda' are featured below. The remaining sections of this module mirror these components.

Intros/
Ice-Breaker → Content → Energizer → Conclusion

At TechChange, we utilize our platform to host our workshop and event agendas. Though you're experiencing the platform as a 'course' currently, for synchronous events, the platform acts as an interactive hub by weaving together the activities, presentations, and resources for facilitators and participants alike. Additionally, we embed third-party collaborative tools, eliminating the strain and confusion resulting from weaving together various platforms and technologies for event success.

Workshop Example:

[Add image of sample workshop agenda]

Resources & Third-Party Platforms

Third-party platforms describe platforms that are external to your primary digital platform. Third-party platforms can provide exciting opportunities to enhance the potential of online learning, elevating your platform capabilities and engaging learners in new ways.

Third-party platforms may be either embedded into your digital platform (if supported by your platform), or you can link out from your digital platform to the third-party platform.

Below is more information about free third-party platforms (or platforms with free options) that can support digital learning.

Google Suite

[Google Docs, Sheets, Jamboard, and Forms](#) all offer a valuable means of connecting students across their respective virtual, self-paced environments. While Google Suite is often overlooked as a tool for asynchronous digital trainings, consider some of these potential uses:

- Link to a Google **Doc** or **Sheet** where users can add vocabulary words relevant to the course subject, take collaborative notes, or add their contact information if they want to get in touch with other students and form study groups. Because these documents update in real time, they can be used by participants simultaneously as long as they have internet access; however, participants can also use them at any time and still access ideas added earlier.
- Create interactive activities on **Jamboard**. Jamboard acts like a virtual whiteboard and can provide an ideal space for brainstorming and note-taking.
- If your digital platform does not offer quiz or survey features, use Google **Forms** to test or survey participants. Under a form's "Settings", select "Make this a quiz" to access the quiz features of Google Forms.

Genial.ly

Easily create interactive, animated e-learning materials via [Genial.ly](#). Use the site's provided templates, or create something from scratch. While ideally, the final Genial.ly content would be embedded in your platform, you can also link out to a brief activity if your digital platform does not support embedding. Note that, unlike in Google Suite, one user's edits or activities in Genial.ly *do not* affect the activity for other users—so activities can be completed again and again without affecting the experience for others. Use Genial.ly to:

- **Reduce textual clutter** by creating click-and-reveals, where users click on a photo, icon, or infographic to reveal additional textual information.
- **Gamify** the course through a visually dynamic quiz with immediate feedback—or even use one of Genial.ly's escape room templates to engage users in a more compelling test of their understanding of course content.

Note that you cannot save the results of users' activities on Genial.ly and thus cannot use Genial.ly as official assessments.

Canva

Unless you are a graphic designer, it can be daunting (and expensive) to take up new design softwares such as Adobe InDesign or Illustrator when attempting to design graphics and resources for your course. One option for creating well designed content without having to face the learning curve of an advanced design software is to use [Canva](#). It is a web-based graphic design tool that is relatively easy to use and can help you create beautiful designs and quick data visualisations.

Best Practices

When designing asynchronous platform-based trainings, individuals should:

- **Use multimedia when possible to reduce text.** Incorporate media such as videos, graphics, and quizzes to reinforce learning and keep learners engaged. When possible, use a video or graphic in place of a paragraph to reduce text and cognitive load.
- **Chunk content into manageable pieces.** Chunking content provides another important means of reducing learners' cognitive load. While designing your course outline, make sure you have identified clear, concise sections that follow one another logically.
- **Provide opportunities for learners to interact with course content.** Interactivity is critical to engagement and deeper understanding of subject matter. If your digital platform offers polling or quizzing features, regularly make use of those features throughout the training. If your platform does not have polling or quizzing options, employ the third-party platforms described previously. Projects and discussion forums can also provide exciting opportunities for learners to interact with course content.
- **Identify opportunities to connect learners with one another.** Learners tend to be more motivated and more engaged when their learning takes place within a community. While asynchronous learning is by definition something that occurs independently, you may still consider ways for learners to interact with each other: for example, invite learners to share their contact information if they would like to form study groups, or provide discussion spaces for learners to respond to questions and see their peers' responses.
- **Offer regular feedback.** Use quizzes and knowledge checks with immediate feedback to help learners stay on track and understand how they are doing relative to the learning objectives.

DESIGNING A BLENDED TRAINING

DESIGN PROCESS

The process for designing a blended training overlaps with the process of designing an asynchronous training; indeed, a blended training is simply a training with synchronous *and* asynchronous components. Thus, all of the steps and recommendations described previously for asynchronous trainings also apply to blended trainings. This section will consequently focus on the *synchronous* portions of a blended training.

The process for designing synchronous sessions for a blended training can be divided into the development of the following key outputs:

- Agenda
- Assessments & Surveys
- Activities

Agenda

When you begin designing your agenda for your blended training, you will likely already have identified objectives for the training as a whole (comprising asynchronous and synchronous components). Now, you will need to identify the specific course objectives you will be targeting with each synchronous session. These objectives may be one or two of your overall course objectives, or they may be sub-objectives of a larger course objective. Most likely, a synchronous session will *not* include enough time to cover *all* course objectives.

Because of the additional strain on resources that result from synchronous sessions, you may be limited in the number of synchronous sessions that you can support. It is best to prioritise higher-level objectives (i.e. objectives that ask students to *apply* or *create* something) for your synchronous sessions.

The four components of a good agenda are:

- Prelude and Icebreakers
- Content
- Breaks and Energisers
- Closing

Prelude and Icebreakers

First, set aside time during the beginning of the session (the “**prelude**”) to test participants’ technology, address housekeeping items, set norms and expectations, and/or explain ground rules. For example, ground rules might include:

- Try to remain on camera if possible; embrace the craziness in our backgrounds.
- Keep yourself on mute unless you are speaking.
- Use the “raise hand” feature when you have a question, or type your question/comment in the chat.

- Keep the view in “Gallery Mode” so we can see each other.
- Make sure the name that is showing up on the video conferencing system is your real name.

Additionally, consider an **icebreaker** at the beginning of the session in order to:

- Allow participants to feel more comfortable sharing and collaborating.
- Help participants network with those they may not have known before the start of the session.
- Set the tone for the rest of the session, introducing elements of the experience’s wider purpose and setting expectations for engagement.
- Prepare participants to engage with relevant third-party platforms that they will use later in the session.

Icebreakers can take anywhere from five to thirty minutes, depending on how much time you have. Your objectives (e.g. information sharing, community building, etc.) should drive the choices you make about which icebreaker(s) to use.

Consider the following potential icebreaker activities:

- **Home Office Tour:** Ask participants to find an object of meaning to them within the vicinity of their computer. Invite each individual to get the object and then present it to the group (in small groups or to the entire group), explaining why it is meaningful.
- **Story of Your Name:** Ask participants to reflect on why they were named as they were (e.g. their name’s meaning, its familial significance, etc.). Have participants share the story of their name in small groups or to the entire group.
- **Caption Contest:** Find a funny photo and invite participants to try and write the funniest caption. Vote on which caption is the best.
- **Sliding Scale:** Use polling software to set up questions that participants can answer about themselves on a scale from 1 to 5. These questions might be relevant to the training (e.g. *On a scale from 1 to 5, where 1 is not at all experienced and 5 is very experienced, how experienced are you in designing online trainings?*) or funny/personal (e.g. *On a scale from 1 to 5, where 1 is very poorly and 5 is very well, how well did you sleep last night?*)

Content

When creating your content, it is essential to consider the following ideas from adult learning theory:

- **Purpose and Objectives:** Each component of the content should tie back to one or more objectives and should support your overall purpose.
- **Your Audience:** Consider the backgrounds that are being brought to the virtual space, in addition to their technical literacy and connectivity.
- **Backwards Design:** What do you want participants to be able to say or do at the conclusion of the experience?
- **Cognitive Load:** Participants can only handle so much new information before they check out (or worse, log out!); chunk your content into bite-sized pieces.

In most cases, “content” will be presented via a PowerPoint presentation; however, this may be adapted based on the needs of your audience, the kinds of content, and your familiarity with other tools. Other options for sharing content include collaborative Google documents, participant workbooks (often PDFs), Prezi presentations, or your online platform.

The “content” will likely also include activities to engage participants in the material (this is the ultimate benefit to synchronous learning!). Activities are discussed further below.

Breaks and Energisers

Breaks are an essential component of any good agenda if you want participants to be able to engage in an experience longer than two hours. Some **breaks** may be as simple as asking participants to turn off their videos and mics and setting a timer for when people should plan to return to their computers, giving them the flexibility to attend to any human needs.

Meanwhile, the purpose of an **energiser** is to disrupt the cadence of what is currently occurring in order to make room for an increase in energy and attention. If breaks allow participants a chance to step away from the screen and the experience, energisers bring participants (including those who had mentally wandered on a kind of break) back to the group and current activity. You will want to consider your audience’s specific needs when deciding whether a break or an energiser is needed at any particular moment.

Closing

It may be tempting just to end; however, strive to bring your virtual event to a natural close, not an abrupt one. Important points to address may include:

- Summarising the main points or participant journey (if applicable).
- Sharing a call to action.
- Providing a formal evaluation or feedback form.
- Asking participants to complete a brief "exit ticket" (e.g. a knowledge check or other brief activity) synchronously before they log out.
- Providing a short reflective prompt that can be answered over the mic or chat.

Assessment and Surveys

Most synchronous sessions that are part of a larger blended training will not include their own assessment; assessments are more easily completed during asynchronous learning time via the digital platform. However, you should still use regular knowledge checks to increase engagement and test learner understanding of course content.

Additionally, make sure to include a survey at the end of the session to invite feedback. Because synchronous sessions are more money and time-intensive, it is important that participants find them valuable. Ask that participants complete the survey *before* they leave the session; otherwise, you will likely have a much lower response rate.

Activities

Synchronous sessions offer a crucial opportunity for interactivity, during which participants can engage more deeply with training content than is possible during asynchronous experiences.

For some, “interactivity” might mean regular polls or knowledge checks with opportunities for Q&A throughout an hour-long presentation. For others, it might mean a multi-faceted, structured, hour-long activity in small groups. Ideally, your synchronous session should include both shorter and longer activity types.

Short Activities

[Short interactive activities](#), such as polls or knowledge checks, typically take advantage of audience engagement software (described more below under “Resources”). They can take anywhere from one to five minutes. Knowledge checks can help break up long presentations, quickly and easily engaging all participants to confirm that they understand the material. For example, if you have recently finished discussing one key section of material, consider adding a knowledge check to test what participants remember from that section. You might also use polls or knowledge checks right before or after a breakout room activity, either to ensure participants have the content knowledge they need to complete the activity or to test what they learned in their small groups.

Some synchronous sessions may be “webinars”, in which case only the moderator and presenters are visible and able to speak to the audience; participants, on the other hand, watch the moderator and presenters but cannot turn their cameras on or unmute. In these cases, it is still important to provide opportunities for interactivity, whether via a Q&A section that makes use of chat features or via audience engagement software.

Long Activities

[Longer activities](#) often involve putting participants in breakout rooms to discuss and/or engage with training material. These activities may last anywhere from ten minutes to an hour or more. If you are expending the additional time and resources to run a synchronous session as part of a blended training, it is highly recommended that you prioritise longer activities during your live session, as this is where higher-level learning is most likely to occur.

So how do you take an objective or idea and design a highly interactive, participant-driven activity?

- **Step 1: Select an objective.** What do you want to achieve?
- **Step 2: Define success.** What evolution do you want to see in participants from the beginning to the end of the activity? How do you want participants to engage with the material and each other?
- **Step 3: Consider the type of activity or framework you will use.** Do you want participants to discuss something, complete a case study, create something, or something else?
- **Step 4: Sequence the activity.** What will participants do from start to finish?
- **Step 5: Identify needed tools and materials.** What third-party platforms might participants use for note-taking or record-keeping?
- **Step 6: Write the activity instructions.** What framing or instructions will you need to provide?
- **Step 7: Determine what your learners need to be successful.** What do your participants need to know (relevant information or content) prior to the activity? *This is likely asynchronous content that participants will need to have reviewed prior to the synchronous session.*
- **Step 8: Revisit your objectives.** Does your activity successfully meet your identified objective(s)?

Resources

Video Conferencing Software

Video conferencing brings a new dimension to distributed meetings, allowing face-to-face interactions with people from across the world.

While many organisations may not have a choice regarding which video conferencing software to use, you may have options. There are a few key features to ensure your selected tool includes:

- **Breakout rooms** are essential for any experience with small-group activities.
- **Polling capabilities** that are integrated directly into the video conferencing software can help increase interactivity, though may also be supported through third-party audience engagement software.
- **Closed captioning and/or simultaneous interpretation functionality** may be a needed feature to increase your event’s accessibility.
- **The ability to have multiple co-hosts** can make the facilitator logistics significantly easier—especially when all co-hosts can help do things like manage breakout rooms and launch polls.
- **Webinar and/or live-streaming capabilities** may be needed to support large events targeting the public.
- **Advanced features such as integrated whiteboards, virtual effects, or participant “reactions”** may be helpful add-ons depending on your audience and objectives.

Compare virtual conferencing tools through sites such as [G2](#), which allows easy comparisons of selected video conferencing tools and graphics that map competitors within a Market Presence versus Satisfaction grid.

Audience Engagement Software

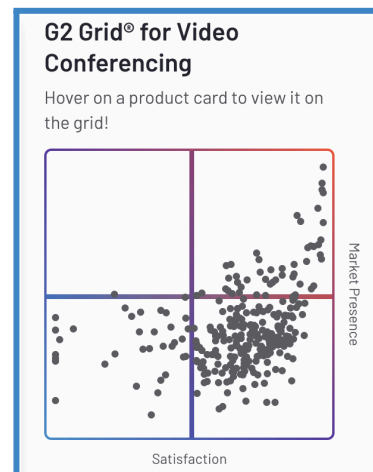
Audience engagement software includes tools and platforms that can be used to collect live feedback from participants in the form of polling, quizzes, surveys, and Q&A. Most tools allow participants to engage either through a QR code, a website and event code, and/or a direct embed into a digital platform.

While most of the competitors within the audience engagement software sector have similar core features, each tool has its own look and feel, along with unique features related to the kinds of polls available and ways in which participants can engage. As you consider which software is best suited for your virtual experience, consider the following factors and features:

- **Anonymity** is often a default feature in polling software. Consider whether you need to know who submitted what response.
- **Advanced types of polls, such as upvoting or ranking**, may not be available on every software or with every plan. Make sure whatever software you choose includes the types of polls you would like to present to your audience.

Compare audience engagement software through sites such as [Capterra](#) or [G2](#), which allow easy comparisons of selected polling tools. Some of the most popular options include:

- [Slido](#)
- [Mentimeter](#)
- [Quizizz](#)



Best Practices

While preparing and facilitating synchronous sessions, individuals should:

- **Recruit *at least two individuals to support the session.*** These individuals should be assigned one of the following roles
 - **Facilitator:** Someone who verbally facilitates the session, including presenting content, sharing activity instructions, and answering questions.
 - **Producer:** Someone who manages all the technical aspects of the session, including opening the Zoom room, admitting participants, creating breakout rooms, sharing links in the chat, etc.
- **Arrive early.** Just because there is no travel time, do not arrive “on time” to your sessions. Arrive at least fifteen minutes early to test your technology, ensure you can log into all relevant platforms before the start of your workshop, and coordinate any last-minute clarifications and responsibilities with additional facilitators.
- **Explicitly address accommodations from the initial planning.** Take some time before your virtual experience starts to ensure that each participant has what they need to participate. If you know who will be attending your experience, send an email ahead of time inviting participants to inform you of their needs; consider anonymous forms so participants can share information privately. Alternatively, use the Prelude section of your agenda to invite participants to send a private chat requesting accommodations for their learning and participation. For example, if available through your video conferencing platform, enable AI-generated closed captioning.
- **Encourage nonverbal communication methods.** To hear from everyone without disrupting the session, encourage participants to use nonverbal communication methods such as the chat or reactions, depending on the capabilities of your video conferencing platform.
- **Identify someone to check the chat.** If necessary, this might be the technical producer for the session, or it might be someone else if you have a third individual to support. What is important is that someone other than the facilitator is watching the chat; otherwise, important communications from participants may be missed.
- **Ask groups in breakout rooms to select a spokesperson before returning to the main room.** When completing an activity in breakout rooms where groups will share their work when they return to the main room, ask each group to select one individual from their group who will share key findings and takeaways from their small group discussion. Having groups select a spokesperson will prevent long silences during the debrief and ensure a more organized, balanced final debrief.
- **Embrace silence and provide “wait time”.** When facilitating discussions, embrace the silence! During this time, people are reflecting on the question and gathering their thoughts. Silence leads to a more enriched conversation because the initial thoughts have already been captured and reviewed.

CREATING AN ENABLING ENVIRONMENT FOR SUSTAINING DIGITAL LEARNING

This section will discuss the logistics related to maintaining and sustaining a course and its learners *after* the course has “launched” (i.e. after the course has been made available to learners). Specifically, the section will review:

1. Activities and best practices to retain learners once they have started the course.
2. The personnel who will be required to support learners and the digital platform infrastructure.

SUSTAINING LEARNER ENGAGEMENT AND RETENTION

How do you encourage more learning and higher completion rates while learners are taking a course? This section will discuss activities to encourage greater student retention, including supporting learners as they complete a course and types of course data and how it can be used to improve current and future courses. Note that much of the work related to sustaining digital learning involves learners’ engagement in course content, and thus occurs during the design stages discussed previously.

Learner Support

While most of the learning on your digital platform will take place asynchronously without the presence of a facilitator/instructor, that does not mean you can expect learners to successfully complete a course without any support. While learners asynchronously take your course, consider doing the following:

Digital Communication – Email, WhatsApp, etc.

Learners—especially adult learners—are often very busy individuals with many competing priorities. Learners are likely to start a course and then procrastinate its completion or even forget to complete it. Regular communication with participants to motivate them and remind them to complete the course is critical to increase course completion rates. Email or WhatsApp reminders are especially important during a blended training, when learners may otherwise forget about an upcoming synchronous session and thus miss out on an exciting opportunity to apply what they have learned. Identify a cadence for reaching out to learners and encouraging course completion without overwhelming them.

Written Assignment Evaluations

Some asynchronous courses may include discussion forums and/or a final project. These kinds of activities can provide an important means for learners to reflect on and apply course content. While not required, students’ learning and motivation can be further amplified by identifying a subject matter expert who can review students’ written assignments and provide feedback. When participants know that someone will be reviewing their work and will provide feedback, they will be more motivated to complete the course and turn in a stronger assignment.

Content Updates

Even after a course has been launched, instructional designers will need to continue to review course content and update material to reflect new information from the field's experts. If learners are taking a course that contains out-of-date material or material that does not take into account current events, they may see less relevancy in the course and thus decide not to continue. To ensure the content's relevance and accuracy, determine a frequency for reviewing and updating each of your courses; for example, you might decide to review courses on an annual or bi-annual cadence, depending on the subject matter.

Monitoring & Evaluation

Instructional designers should closely monitor course success (or lack thereof) and should use the findings from various data sources to improve their course design and increase student retention. Potential data sources and how they can be used are described below.

Training Assessment

As discussed in earlier sections, assessments (including pre- and post-assessments) offer an important means of testing student learning. Pre-assessment results can be compared with post-assessment results to identify how learners have progressed from the beginning to the end of the course. If students repeatedly demonstrate minimal progress and/or are not passing the post-assessment with high scores, instructional designers should review and update course content accordingly. Poor scores on post-assessments might indicate that:

- **Learners are not engaged in course content and consequently are not retaining key information.** When learners are not engaged, they are less likely to remember information. To improve post-assessment scores, consider increasing the online training's interactivity via knowledge checks or Genial.ly games.
- **Course content is not presented clearly or understandably.** Instructional designers may need to review how course content is explained and clarify key concepts. This may involve further breaking down complex ideas, engaging a copy editor, minimising text-heavy sections to reduce learners' cognitive load, and/or adding additional multimedia elements to visually represent key concepts.
- **Course objectives (as tested via the assessment) are not achievable within the confines of the digital platform.** Higher-level objectives that require learners to evaluate, create, or analyse something may not be achievable via an asynchronous course, as they may require support from and engagement with a facilitator/instructor. In this case, it may be necessary to adapt the course modality (e.g. create a blended or synchronous course, rather than an asynchronous course).

Platform Data

Many digital platforms offer a wealth of information about how and when users engage with course content. If your platform offers this information, take advantage of it to identify what is and is not working and to improve current or future online courses accordingly.

Depending on your digital platform, you may have access to the following data:

- **Completion/Progress:** Some digital learning platforms will be able to track student progress throughout a course; the platform will tell you which sections learners have completed and which they have yet to complete. Some platforms, such as the TechChange Platform that hosts the ICT4Ag courses, will allow users to see a summary showing how far they've gotten through the course outline. If a significant number of learners are failing to complete a course, review the completion data to identify at what point in the course most learners are dropping out. A large drop-off at a specific section may indicate that the section's content is not sufficiently relevant, interactive, and/or engaging.
- **Activity Types and Frequency:** Digital platforms may be able to track and provide data related to the specific actions (sometimes referred to as "statements") that learners take while engaging in a course. For example, available data might include the number of times that a learner has *viewed* a page, *clicked* on a link, *downloaded* a file, *played* a video, or *submitted* a quiz response. Identify what learners are doing (and what they are *not* doing) in order to understand what is most engaging/interesting to learners.
- **Activity Timing:** Finally, digital platforms may collect data on *when* learners are active in a course: for example, the time of day that learners are active on the course, the day of the week, or the weeks within a year. Time of day and day of week data may help you identify when to hold a synchronous learning session during a blended training. Information about which weeks or months within a year learners are most active can be used to identify optimal course launch dates.

Focus Groups and Surveys

Any assumptions about the causes behind trends in platform data should be followed by focus groups, interviews, and/or surveys that ask course participants to share feedback on the course. As discussed earlier, human-centred design processes—which include engaging potential learners in the course design—help to ensure that your digital training meets a real need that learners are experiencing; however, human-centred design does not end with the course launch. Continued conversations with course participants can provide critical insight into how effective the course is, how the course could be improved, and what you might need to change when you design future courses.

Certification

Learners are often more motivated to complete an online course if they know that, upon completion, they will have something that demonstrates that they have the specific set of skills or knowledge that the course covers. Certificates offer "proof" of learners' accomplishments and can be used to advance learners' professional goals. While not all courses will or should result in a certificate, instructional designers should determine whether or not they will provide a certificate at the end of their training and, if a certificate will be offered, what the requirements are for receiving a certificate. Common requirements to achieve a certificate include:

- Completion of the course
- Passing a final/post-assessment (typically with a score of 80% or higher)
- Completion of a feedback survey

KEY DIGITAL TRAINING PERSONNEL

What are the key roles and responsibilities that will need to be assigned to staff supporting a digital platform-based training? This section will explore *internal staff* required to sustain a digital learning platform and *potential partners* that organisations might engage in order to execute a more effective online training.

Internal Staffing Requirements

The following are roles/responsibilities that will need to be assigned to one or more internal staff members in order to maintain digital platform-based trainings:

- **Instructional Design:** Instructional design is the practice of developing and delivering instructional materials to an audience, whether via asynchronous or synchronous sessions. This guide has primarily targeted the work that instructional designers would do to create the course, which includes using adult learning theories in order to outline, draft, and launch a course. After the course has launched, instructional designers may continue to provide support to learners via email communications or course updates.
- **Infrastructure Maintenance:** Infrastructure maintenance refers to the work most directly related to your digital platform. This could include making updates to the digital platform infrastructure (e.g. creating new features or changing the front-end layout) or addressing technical bugs. This work generally requires a knowledge of coding. If your digital platform is provided via a third party, then infrastructure maintenance will be minimal or nonexistent, as the third-party provider should be responsible for infrastructure updates and bug fixes. If the platform has been custom built, you will need to identify at least one individual who will update platform infrastructure and respond to platform bugs.
- **Quality Control:** As discussed previously, you will need to regularly review existing courses and update course content as new information becomes available. Even after the course has been launched, someone should continue to monitor relevant updates and new best practices related to the training topic and should then make the appropriate updates to training content.
- **Monitoring & Evaluation:** The results from M&E efforts are essential to create a more effective learning environment for students. Someone will need to be responsible for managing associated activities, such as creating surveys, facilitating interviews/focus groups, reviewing platform data, and analysing the data.
- **Customer Service:** As learners engage with the digital platform and complete the training, they are likely to have questions, whether about the course content, how to use the digital platform, or a platform bug. Your digital platform should clearly note who participants can reach out to if they have questions. You will need to identify at least one individual in the organisation who is responsible for responding to participants' inquiries or issues.
- **Facilitation:** If you decide to run a blended training, you will need at least one individual to facilitate the session. "Facilitation" typically includes explaining new course content, describing activities/small-group work, answering questions, and leading full-group discussions.

- In addition to a facilitator to verbally lead synchronous sessions, you will need at least one person to manage the technical aspects of the session. This individual manages the video conference platform during the live session, in addition to any other third-party platforms.

Partnership Opportunities

Depending on the internal resources of your organisation and the needs of your training, you may consider engaging outside partners to provide additional support in the following areas:

- **Monitoring & Evaluation:** If you do not already have an M&E expert on your team, consider engaging a partner from outside your organisation/team to support monitoring and evaluation. An outside partner could help design assessments, surveys, or focus groups and analyse the resulting data.
- **Facilitation:** Especially if you plan to run numerous synchronous sessions as part of a blended training, it may be worthwhile to engage an experienced facilitator to lead those synchronous sessions. Facilitators should be highly effective communicators who can provide clear instructions for small-group work and direct full-group discussions.
- **Subject Matter Experts:** If your team does not include someone who is an expert in the training topic, or if the training includes multiple technical topic areas, identify one or more subject matter experts to support the course, both in the design and the launch phases. During the design phase, the subject matter expert can provide critical insight into the course outline and resources to support course creation; after the course has been launched, subject matter experts can help answer learners' questions, either via email or during live Q&A sessions.

ANNEX

This is a collection of all the resources listed throughout the document as well as several others that may be useful when designing asynchronous training content and/or synchronous training sessions.

RESOURCES TO SUPPORT TRAINING DESIGN

- [The Ultimate Cheat Sheet for Creating Learner Personas](#)
- [IDEO's Field Guide to Human-Centered Design](#)
- [Bloom's Taxonomy](#)
- [TechChange's Synchronous Presentation Interactivity Recommendations](#)
- [TechChange's Synchronous Virtual Activity Recommendations](#)
- [The Definitive Guide to Facilitating Remote Workshops](#)

RECOMMENDED THIRD-PARTY PLATFORMS

- [Google Drive](#)
- [Genial.ly](#)
- [Canva](#)
- [Slido](#)
- [Mentimeter](#)
- [Quizizz](#)
- [Miro](#)
- [Mural](#)

JengaLab



TechChange



DEVELOPMENT
GATEWAY
An IREX Venture