

# **Blended Learning**

## Maximizing the Impact of an Integrated Solution

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**MAKING KNOWLEDGE A TANGIBLE ASSET.**

## Introduction

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### Learning is a process

Learning is a process—an ongoing experience involving the delivery of learning events across time.

Blended learning refers to a type of learning that combines multiple delivery methods throughout the learning process. Today, more methods of delivering information are available than ever before, and successful blended learning maximizes the use of all possible delivery methods.

### The goal

Webster's Dictionary offers contrasting definitions of *blending*: (1) To pass or shade imperceptibly into each other...; and (2) To muddle up.

The ultimate goal of blended learning is an integrated learning solution, which purposefully and imperceptibly combines learning events from diverse delivery methods throughout the learning process. Conversely, a dartboard approach to media selection and coordination typically generates a disjointed and muddled learning experience.

### Choices, choices

The e-Learning industry provides an array of delivery combinations for training and support. Options, however, do not ensure success. Have you ever seen a document created by a word-processing novice? The excitement of having access to countless font, size, color, and formatting options often overwhelms good sense, resulting in an outcome that is less than ideal. Multiple delivery methods enable the creation of powerful solutions but require a purposeful approach to the selection, coordination, and implementation of these options.

### The key

The key to successful blended learning lies in:

1. Selecting appropriate delivery methods for specific learning outcomes
2. Effectively combining diverse learning events

### It's chemical

Like chemistry, blended learning is about combining elements to create a desired reaction. However, both practices are not simply about the inclusion of elements but about how the elements are combined. The execution of the formula—by combining the right elements at the right time—creates the desired reaction.

Effective blended learning requires proper execution because we cannot expect the inclusion of multiple elements to yield optimal results. The trick is to find and execute the right formula.

Because disparate learning needs may not require the same formula, e-Learning leaders are in the business of continuously creating new formulas.

### Elements of the learning process

The learning process is composed of learning event and learning enhancement elements. Multiple delivery methods can be implemented for any element.

Formal experience that accomplishes a learning objective includes:

- Synchronous delivery
- Asynchronous delivery

Informal experience contributes information supporting, supplementing, or relating to the learning objective

## Putting it all together

As discussed, learning is a process composed of different learning events and experiences. The remaining sections of this paper will examine different delivery methods and discuss best-practice decisions points for selecting the right delivery method for a learning need.

## Delivery Methods

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### Synchronous learning

Synchronous learning refers to real-time learning events in which all participants share the learning experience and may interact with each other.

Synchronous learning includes:

**Traditional classroom Instructor-Led Training (ILT):** All participants, including the instructor, are in the same location.

**Virtual Classroom Instructor-Led Training (ILT):** Participants are in two or more locations and interact through the use of synchronous technologies.

#### Advantages of synchronous learning:

- Allows real-time application of knowledge to complex situations
- Allows real-time interaction with facilitator and participants
- Typically less expensive to produce than asynchronous learning
- Faster to produce
- Easy modification and setup
- Flexibility: facilitator can improvise
- Instructor-led format is familiar to most learners

#### Disadvantages of synchronous learning:

- Requires coordination of participants and schedules
- May incur travel costs
- Difficult to maintain and standardize
- Learners cannot learn at their own pace
- Does not support individual exploration
- May discourage learners from taking risks (particularly in a live, face-to-face, environment)

### Asynchronous learning

Learning events that can be accessed at disparate times are known as *asynchronous learning*. Events can be designed for one person or require multiple participants; however, interactions with other participants do not occur in real time.

Types of asynchronous learning include:

**Web-Based Training (WBT):** Self-contained learning events delivered via the Internet

**Computer-Based Training (CBT):** Self-contained learning events delivered via a local drive, LAN, CD-ROM, and so forth

**Print:** Learning delivered via manuals, books, programmed workbooks, and so forth

**Audio / Video:** Learning events delivered in audio and video formats

**Advantages of asynchronous learning:**

- Ideal for learning simple facts and concepts
- Does not rely on participants' schedules
- Easily distributed
- Facilitates maintenance and standardization (generally, content is maintained in one location)
- Standardization and impartiality attributes are ideal for compliance and certification training
- Allows learner to explore at own pace
- Allows learner to choose learning path

**Disadvantages of asynchronous learning:**

- Not ideal for learning how to apply knowledge to complex situations
- Initially expensive and time-consuming to produce
- Limited immediate interaction with facilitator or other learners
- Less flexible than synchronous learning
- Participants not always familiar or comfortable with technology involved

## Learning Enhancements

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**Experience enhancers**

Tools and features that supplement and enhance the learning process are called *experience enhancers*. Current technology excels in this capacity, providing:

**Peer interaction:** Access to peers or other learners throughout the learning process via chats, threaded discussions, e-mail, and so forth. (This technology could also be used synchronously; see "ILT Virtual Classroom" above.)

**Ask-the-expert:** Technology that permits inquiries (in real-time or delayed) to designated experts.

**Notes:** Online feature enabling learners to log and review context-sensitive notes.

**Links:** Predetermined or learner-selected HTML links within the body of the learning event, allowing instant access to supplemental information.

**Learner management:** Tools that organize, monitor, and report learner progress throughout the learning process. These tools can be made available to training administrators, facilitators, instructors, and participants.

**Performance support**

Information may be provided to the learner to be accessed as needed in the performance environment. Generally, this information does not need to be committed to memory, but rather accessed in the context of a task.

**Reference and job aides:** Online or print-based information.

**Electronic performance support:** Searchable electronic reference providing instructions to complete the task at hand.

## Decision Points

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Designing a blended learning solution involves selecting and combining delivery methods to best accomplish learning outcomes. There is no perfect formula for creating a blended learning solution. However, decision points and corresponding guidelines can be applied to determine which delivery methods will best meet your goals.

### Performance outcomes

Performance objectives play a key role in selecting delivery methods. Different levels of performance may require different delivery methods. For example, recalling a fact is a simple performance objective that can be easily accomplished by an individual learner in a stand-alone asynchronous environment.

Synthesizing and applying knowledge to complex situations might require more collaboration and real-time experience. Such performance outcomes are better suited to synchronous environments, which provide access to and participation with peers and a facilitator. Feedback is immediate (unlike asynchronous environments), and real-time activities are more open-ended and create less predictable outcomes. Such unpredictability requires the facilitator to be flexible in providing feedback and guidance.

The table below offers some general guidelines for selecting delivery methods based on performance outcomes.

Performance Type	Experience	Delivery Method
--	Reference and EPSS	--
<b>Recall</b>	Interactive	Asynchronous
<b>Apply</b> <b>Analyze</b>	Collaborative	Asynchronous / Synchronous
<b>Synthesize</b> <b>Evaluate</b>	Experience-based	Synchronous

**Table 1.** Guidelines for selecting delivery methods based on performance outcomes.

*Note:* Performance outcomes have more influence on media selection for learning events than for learning enhancements. Most other decision points can be applied to both.

### Content stability

*How stable is the content?* Considering the high expense associated with creating asynchronous learning, dynamic content with a short shelf life (for example, updated quarterly) is better suited to synchronous delivery. For stable content, it is more practical to produce asynchronous learning.

### Content structure

*Is the content structured?* Structured content is typically provided for simple performance outcomes because it presents precise content with concrete questions and structured feedback. Designed to be delivered consistently across audiences and locations, structured content is well suited to asynchronous delivery methods.

*Note:* Structured content delivery can be ideal for certification and compliance training because it can be delivered consistently and impartially across audiences and locations.

Unstructured content is typically provided for complex performance outcomes where learners integrate and apply knowledge to detailed situations, and answers and feedback are open ended. Synchronous delivery methods are appropriate for unstructured content.

### **Time constraints**

*How immediate is the need?* Producing asynchronous learning typically requires time and resources, making synchronous solutions more appropriate for time-critical content. An asynchronous solution is best considered when time constraints are less important.

### **Audience characteristics**

*How many people will the training reach?* A large audience may justify the expense of an asynchronous solution, particularly when a distance-learning solution reduces travel costs. However, synchronous solutions are preferable for smaller audiences.

*Note:* audience size does not necessarily mean class size. A course delivered weekly and across locations to small classrooms still reaches a larger audience over time.

*Is the audience proficient with technology?* If the audience is not proficient with technology, traditional delivery methods should be incorporated; for example, a solution may provide a combination of live classroom events, print, audio, and video materials. Technology-based solutions can be incorporated if the audience is proficient with technology.

*Are participants collocated (in the same location during the learning event)?* If participants will not be collocated because of geography or budgetary constraints, asynchronous and virtual classrooms may be implemented. If participants are collocated, all delivery methods are appropriate.

*Participant schedules?* Synchronous events are inapplicable if participant schedules cannot be coordinated.

### **Proximity**

The learning experience should emulate the real-life task. For instance, training someone on a machine operation task is ideally done on the machine in question, just as training someone to handle irate customers is most effective in a nearly identical simulation environment. Media selection is usually a compromise between instructional proximity and feasibility.

An application table summarizing decision points is provided at the end of this document (**Table 3**).

## **Other Considerations**

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### **Cohesion**

Once the proper mix of elements is determined, elements must also be coordinated to avoid confusion and create a cohesive experience. Consider some of the following best practices:

- Format elements for a similar look and feel
- Use the same scenario across learning events
- Determine a logical rollout schedule that coordinates elements in a logical and timely fashion

Delivering consistent functionality, graphical elements, and learning strategies creates a familiar brand or look across learning events. Use branding to unify the elements of the learning experience, particularly in situations where learners experience frequent gaps between events because the brand returns the learner to a familiar environment.

## Reusable Learning

So where does reusable learning fit into all of this?

Reusable learning objects are simply learning events created in multiple delivery media and used in multiple contexts. They are the elements to be combined in a blended learning solution.

A robust cache of learning objects enables the retrieval and delivery of learning events specific to an individual's needs. The more learning objects available, the more robust the experience becomes.

## A Blended Learning Case

A common blended learning strategy is to use asynchronous WBT / CBT to introduce baseline knowledge (facts, concepts, and so forth) to the individual participants of a learning group. Then, the group is brought together in a synchronous event to experience complex applications and situations. For example, a Change Management curriculum might follow this activity plan:

*(Note that learning events are developed and scheduled to benefit from each delivery medium.)*

	<b>Principles of Change Management</b>	<b>Applying Change Management</b>	<b>Evaluation</b>
<b>Learning Event</b> (one or more learning objects)	Overview of principles	Application of principles	<ul style="list-style-type: none"> <li>• Performance of principles</li> <li>• Performance evaluated, scored, tracked, and reported</li> </ul>
<b>Instructional Strategy</b>	Presentation of principles in the context of scenarios	Role play scenarios	<ul style="list-style-type: none"> <li>• Remediation offered</li> </ul>
<b>Delivery Medium</b>	<b>Asynchronous</b> Self-paced WBT	<b>Synchronous</b> On-site, facilitated activities with peers	<b>Sync / Async</b> <ul style="list-style-type: none"> <li>• On-site performance evaluated by facilitator</li> <li>• Online evaluation reviewed by facilitator</li> <li>• Online evaluation judged by system</li> </ul>
<b>Enhancements</b>	Access to: <ul style="list-style-type: none"> <li>• Further scenarios</li> <li>• Online expert</li> <li>• Online peers</li> </ul>	Access to: <ul style="list-style-type: none"> <li>• Further scenarios</li> <li>• On-site facilitator</li> </ul>	Access to: <ul style="list-style-type: none"> <li>• Expert feedback</li> <li>• Further training</li> </ul>

**Table 2.** Sample activity plan.

## Summary

It's still chemical.

Learning is a process, and current delivery capabilities can provide a rich blend of experiences throughout that process.

Designing a blended learning solution is a complex undertaking with multi-dimensional considerations. There are no simple answers, and no decision point is inherently more important than another. The key is to determine which considerations are most critical to a particular training need; then, examine the options and make informed choices. By considering various factors and applying established decision points, the effects of each delivery method can be maximized to create a robust learning solution.

The right formula creates a powerful reaction.

## Application Table

Key: ●: apply; ◐: feasible, but not necessarily best use

	Synchronous		Asynchronous				
	ILT Classroom	ILT Virtual	WBT	CBT	Print	Audio	Video
<b>Performance Outcome:</b>							
Recall and simple application	◐	◐	●	●	●	●	●
Complex application, analysis, synthesis, etc.	●	●	◐	◐			
<b>Content Stability</b>							
Stable content	◐	◐	●	●	●	●	●
Dynamic content	●	●	◐				
<b>Content Structure</b>							
Structured content	◐	◐	●	●	●	●	●
Unstructured content	●	●					
<b>Audience Size</b>							
Large audience	◐	●	●	●	●	●	●
Small audience	●	●					
<b>Audience Proficiency with Technology</b>							
Proficient with technology	◐	●	●	●	◐	◐	◐
Not proficient with technology	●				●	●	●
<b>Participant Collocation</b>							
Collocated	●	●	◐	◐	◐	◐	◐
Not collocated		●	●	●	●	●	●

Table 3. Decision points summary.



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