

# CREATING EFFECTIVE CONTENT

**ottolearn**<sup>®</sup>  
AGILE MICROLEARNING

A PRODUCT OF NEOVATION LEARNING SOLUTIONS

v1.05



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# INTRODUCTION

**With OttoLearn, any organization can harness the power of Agile Microlearning.**

**Our goal is to improve training and learning efficiency through adaptive training delivered through 2 minute daily microlearning sessions – for the benefit of both the organization and the learner.**

Personalized training is a powerful and effective approach that assesses a learner's knowledge and then develops an optimal training plan unique to that learner. Adaptive training goes one step further, by continuously modifying the training plan to adapt to the performance of the learner over time.

It's truly a great time to be involved in online training. We are slowly recovering from the impact of standardized training modules and moving back to adaptive training focused on efficient, long-term knowledge retention.

Most traditional eLearning courses are replications of live, instructor-led training. They are designed around a one-and-done usage pattern, and the main metric of success is simply the number of completions. But for learners to learn, they first must engage.

Through OttoLearn, you can promote high engagement by:

- › Creating a regular, daily training cadence, which normalizes training sessions into the learner's routine
- › Delivering quick learning bursts of 2-3 minutes each
- › Allowing learners to do on-demand Mini Moments
- › Providing continuous physical stimulation through interactivity
- › Exercising content at the edge of learners' knowledge
- › Allowing learners to engage through any device – mobile, tablet or desktop

With every interaction, OttoLearn builds a model of each learner's level of knowledge (mastery), which it uses to adapt the delivery of future Activities.

## HOW TO USE THIS TRAINING MANUAL

To get the most benefit from this manual, we recommend reading it through and then completing our **OttoLearn certification** . This certification, delivered through OttoLearn, will provide an opportunity to practice and apply your knowledge, helping you master the art of creating effective content.

You might also want to visit our training page (**link.ottolearn.com/training** ) , which acts as a hub for getting started in OttoLearn. Here, you will find all of our training resources, including snippet videos, whitepapers, and other helpful links.



If you have any suggestions for this document, let us know! Send them to our team at **docs@neovation.com** 

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AGILE MICROLEARNING



# CREATE YOUR KNOWLEDGE MAP

## UNDERSTAND THE CONTENT HIERARCHY

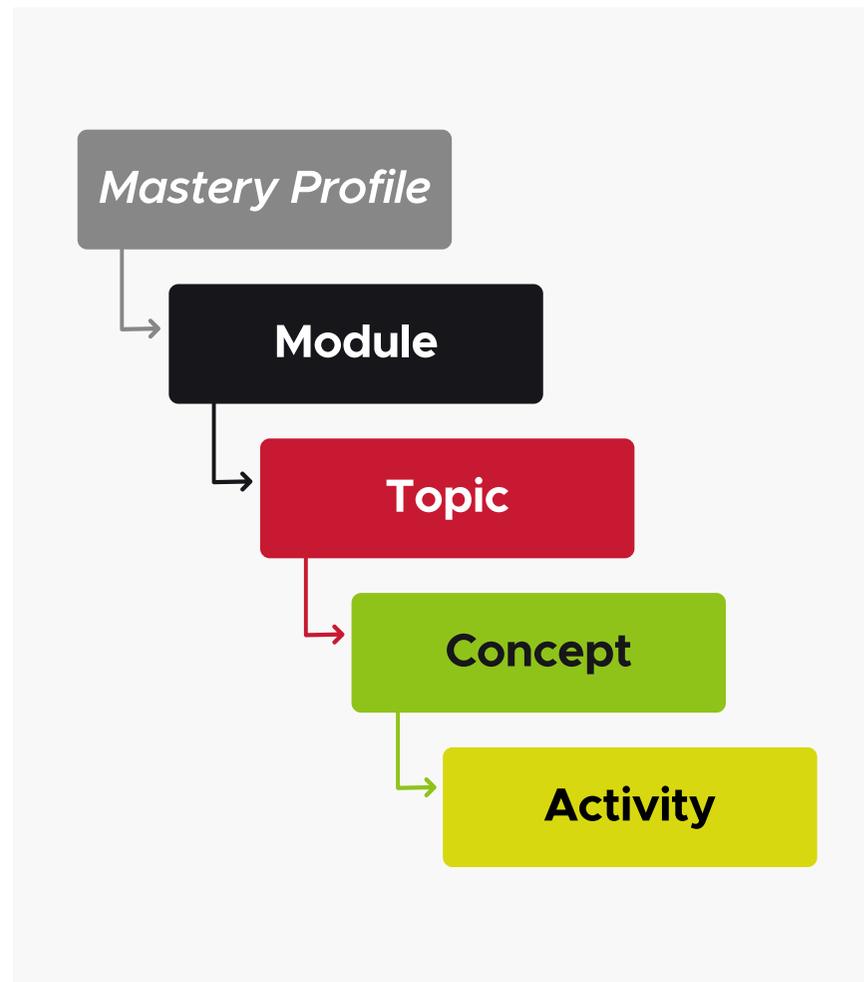
Unlike traditional eLearning courses, which typically organize content in a linear way, content in OttoLearn is organized in a hierarchy consisting of Mastery Profiles, Modules, Topics, Concepts, and Activities.

Arranging information in a hierarchy is a natural way to organize content. **Think of a Mastery Profile as a library, a Module as a book, a Topic as a chapter, and a Concept as a page.** This organization makes it easy to see related information, which is important as you add and remove content over time.

Each Module can be assigned to one or more Mastery Profiles. This allows you to deliver reusable content to learners with different job profiles. For example, learners with the Retail Employee Mastery Profile, as well as learners with the Warehouse Manager Mastery Profile, must complete the First Aid Module.

Like books, Modules group all of your content. While Modules can be assigned to different Mastery Profiles (libraries), your Topics (chapters) and Concepts (pages) are tied to the Modules they are created in and can't be shared.

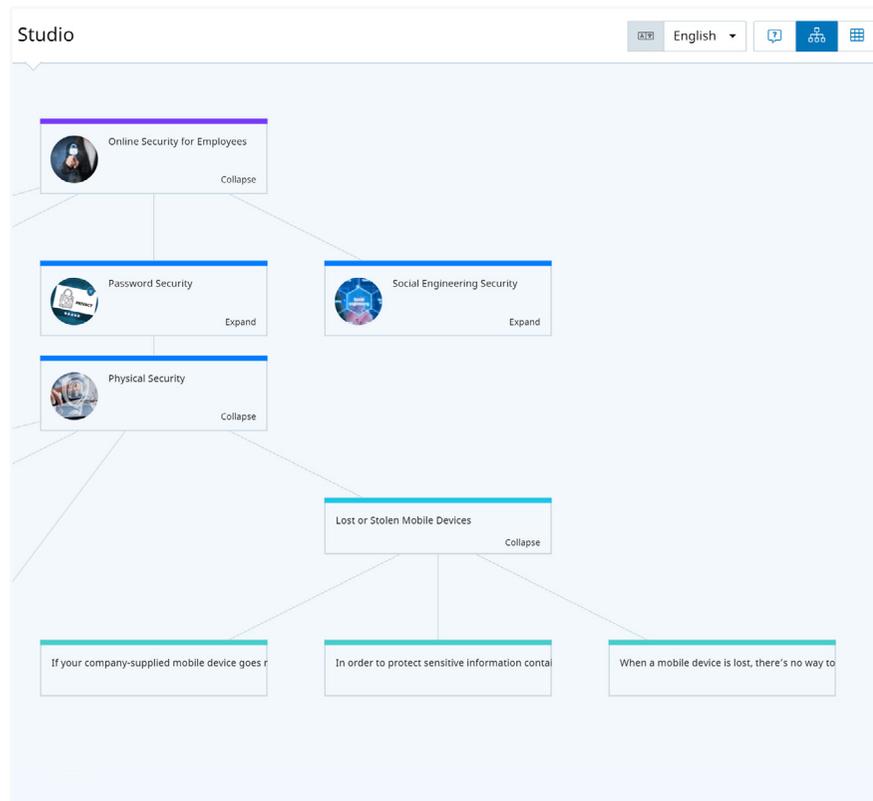
**For example, if you add the Hand Washing Topic to the First Aid Module, you can't also add it to the Kitchen Procedures Module.**



# UNDERSTAND THE CONTENT HIERARCHY

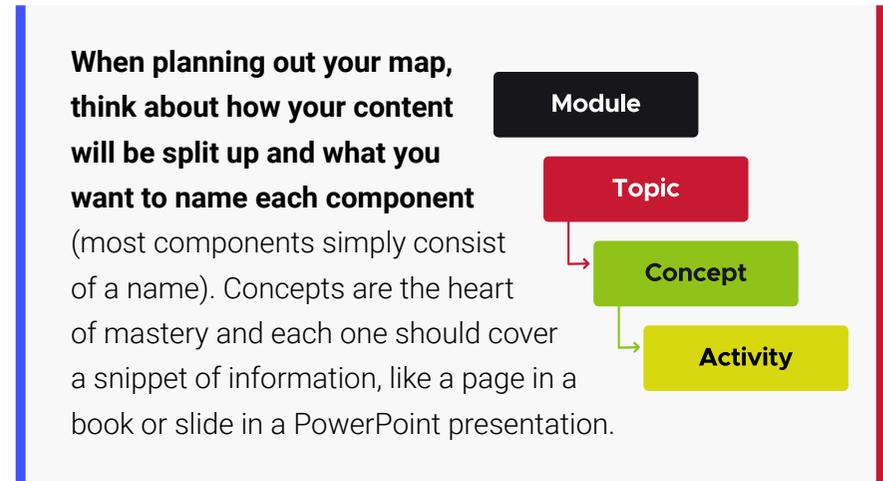
## KNOWLEDGE MAP

Within the system, all of your content is organized in a knowledge map, which you can view from the map view in the content studio. We recommend using this view when creating your content, so you can see how everything fits together.



# MAP OUT YOUR CONTENT

When creating your content in OttoLearn, it is important to consider how it will be organized in the **knowledge map**.



You don't need to have your Activities written out, but you should have an idea of how many Activities you will need. We recommend creating 3-6 Activities per Concept. If you think you will need more Activities, you may want to further split up your content.

If you're using OttoLearn for the first time, we recommend planning out your map in advance (for instance, using an application like <https://bubbl.us/>). Later, as you become more comfortable organizing your content, you can skip this planning phase and build your map right in the Otto system.

# MAP OUT YOUR CONTENT

## SAMPLE SCENARIO

James needs to deliver some first aid training, so he creates a Module called First Aid Basics. Modules hold all of the training content on a particular subject.

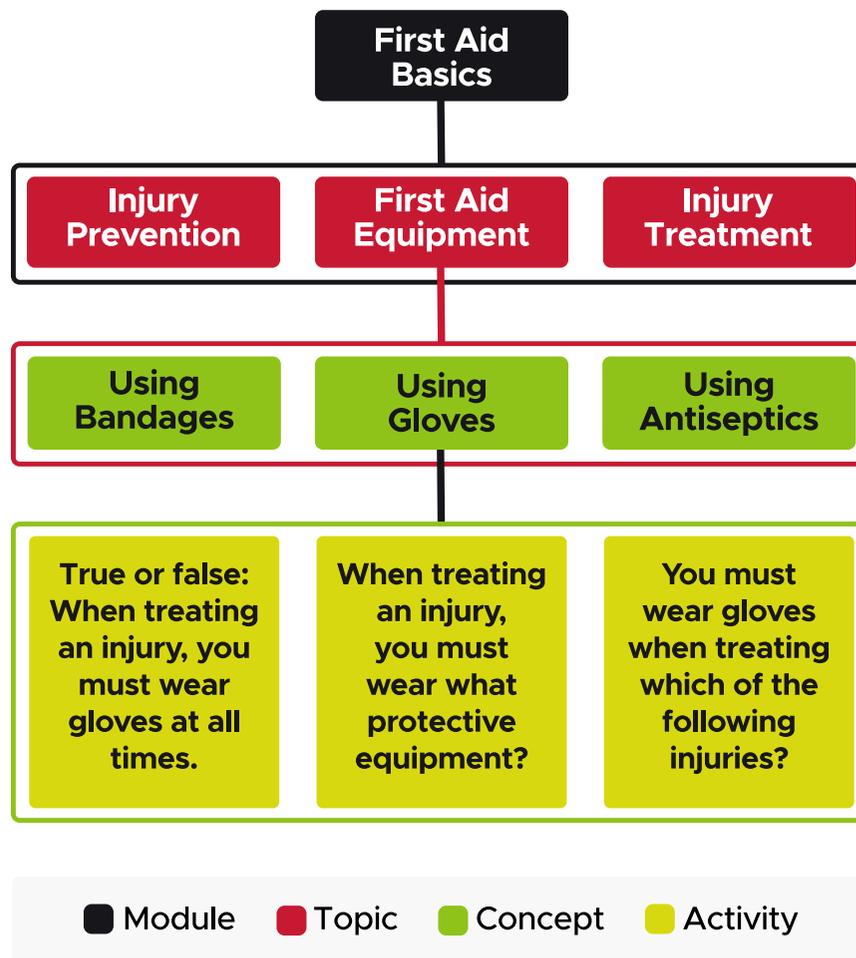
**Modules are broken up into Topics.** Topics are like chapters in a book; they are used to group together similar Concepts. James creates three Topics: First Aid Equipment, Injury Prevention, and Injury Treatment.

**Each Topic contains one or more Concepts.** Concepts are like pages in a book; they are the individual building blocks of knowledge.

**Each Concept should focus on a particular piece of knowledge.** In the First Aid Equipment Topic, James will create Concepts for using each item (bandages, gloves, and antiseptics).

Within each Concept, James will create 3-6 Activities, designed to exercise the knowledge within the Concept from several points of view.

Once he is happy with everything, James assigns the First Aid Basics Module to the Pilot Group Mastery Profile. This allows him to get some initial feedback before launching the training to all of his employees.



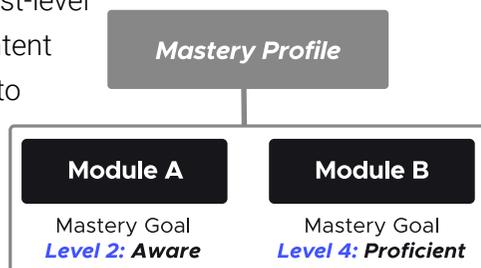


ProTip

We strongly recommend assigning your training to an initial pilot group, and then gradually launching it to the rest of your learners.

## DETERMINE YOUR MASTERY PROFILES

Mastery Profiles are the highest-level component in OttoLearn's content **hierarchy**. They are assigned to learners and represent job profiles, such as customer service representative, manager, or pilot tester.



You may want to assign multiple Mastery Profiles to learners who have more than one role. For example, you can assign a warehouse worker who belongs to the safety committee the Employee and Safety Mastery Profiles.

### SAMPLE SCENARIO

The Fina Shoes company has just purchased a fleet of delivery trucks and hired a team of drivers. James, the training manager, creates a Mastery Profile for this new job, called Delivery Drivers.

Within the Delivery Drivers Mastery Profile, he adds the Road Safety Module, with a mastery goal of *Level 5: Expert*. In the future, he can add additional Modules to the Profile, and when he does, all learners with the Delivery Driver Mastery Profile will automatically start receiving this content.

## DETERMINE THE MASTERY GOAL

Each Module within a Mastery Profile is assigned a **mastery goal**, which indicates the level of knowledge learners must demonstrate to achieve mastery.

There are 5 levels to choose from.

### **Level 1: Novice**

Learners will become aware of their knowledge gaps.

### **Level 2: Aware**

Learners will remember being exposed to the information, but they won't be able to predictably recall it.

### **Level 3: Competent**

Learners will predictably recall the information, but they will require some thinking time and make occasional errors.

### **Level 4: Proficient**

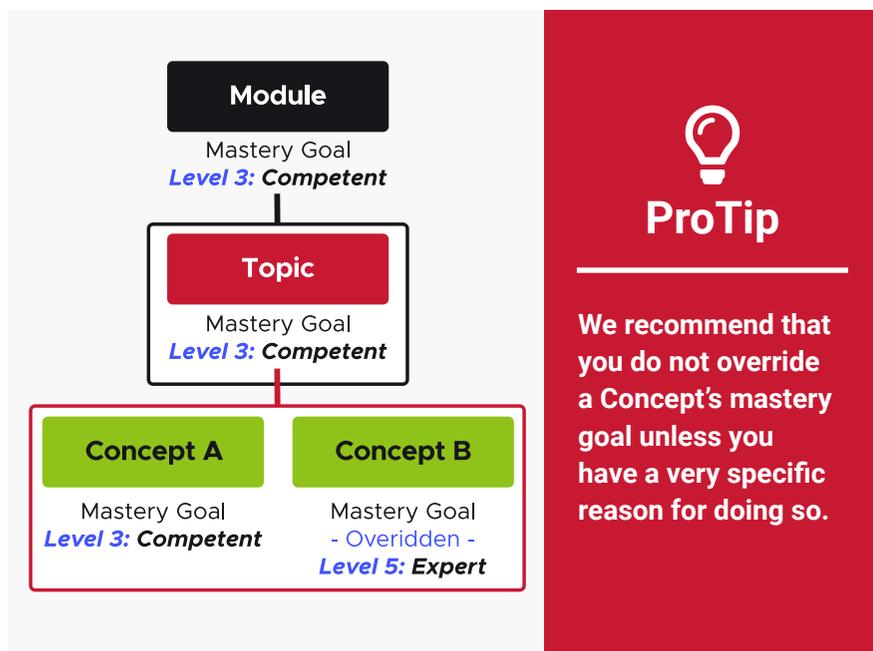
Learners will exhibit accurate and rapid recall with few errors.

### **Level 5: Expert**

Learners will exhibit immediate recall with virtually no errors.

# DETERMINE THE MASTERY GOAL

The mastery goal set for a Module is inherited by **everything within it** — Topics, Concepts, and Activities — but can be overridden for individual Concepts.



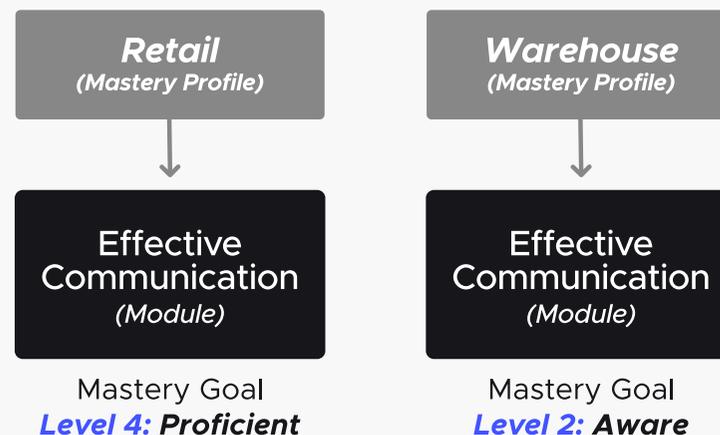
A Module can be assigned to multiple Mastery Profiles and have a different mastery goal in each. This allows you to require different groups of learners to have different depths of knowledge.

**If a learner is assigned the same Module twice, and in each Mastery Profile the Module is assigned a different goal, the higher goal will apply.**

## SAMPLE SCENARIO

Everyone at Fina Shoes needs to complete the Effective Communication Module, but not everyone needs the same level of knowledge. For example, employees in the Retail Department need a much deeper understanding of the material than employees in the Warehouse Department, who rarely interact with customers.

James assigns the Module to the Retail Mastery Profile and sets the mastery goal to Level 4: Proficient. He also assigns the Module to the Warehouse Mastery Profile and sets the mastery goal to Level 2: Aware. He repeats this process for each Mastery Profile, assigning different mastery goals based on each department's needs.



## HOW LEARNERS ACHIEVE MASTERY

Imagine that you have a Concept about identifying fire hazards. Within the Concept, you create six Activities to exercise this knowledge.

A learner could complete all six Activities in a single session, but does this demonstrate that they have really mastered the information? No.

**To achieve mastery, learners must be able to demonstrate proficiency over time.**

Every time a learner completes Activities, their mastery level will change. The amount and direction of change (up or down) is based on many factors, such as if the learner answers correctly or incorrectly, how valuable the practice is, and how quickly they answer.

The level of mastery learners must attain is based on the **mastery goal** you've set. If you want learners to have a deeper understanding of the material, set a higher mastery goal.

After a learner increases their mastery level, there is a waiting period before they can increase it again. This leverages the concept of spaced repetition to ensure that the learner can demonstrate proficiency over time, which leads to long-term retention.



Within each Mastery Moment, Otto will automatically select the Activities the learner needs to complete in order to efficiently reach their mastery goal.

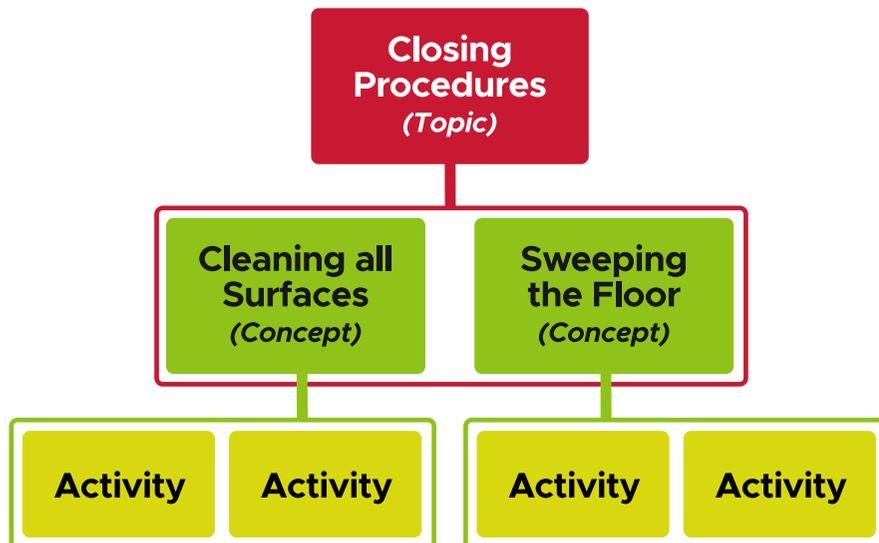
# HOW LEARNERS ACHIEVE MASTERY

## MINI MOMENTS

Learners can also self-direct their learning and increase their mastery by completing Mini Moments on specific Modules, Topics, and Concepts.

To complete a Mini Moment, learners can click the play button on the specific Module, Topic, or Concept they want to explore. The system will then present them Activities from within that specific level.

For example, if a learner does a Mini Moment on the Closing Procedures Topic, they will only be presented Activities from within that Topic's Concepts.



## DIFFERENCES BETWEEN MASTERY MOMENTS & MINI MOMENTS

There are two main differences between Mastery Moments and Mini Moments.

1. Mastery Moments include Activities from all available Mastery Profiles; Mini Moments include only Activities from within the specific area the learner wants to explore.
2. Mastery Moments do not include Activities with unmet prerequisites; Mini Moments allow learners to select areas with unmet prerequisites (following our philosophy that we should not limit a learner's ability to control their own learning).

**ProTip**

A learner's mastery level will be impacted in exactly the same way for both Mastery Moments and Mini Moments. In fact, a Mini Moment is just a self-directed Mastery Moment.

Activity selection will follow the same algorithm for both — where Otto will select the most valuable activities for a learner to practice.

## ACHIEVE UNIVERSAL COVERAGE

Many traditional eLearning courses end with a final quiz, with questions drawn from a question pool. Each learner only receives a random sampling of questions. For example, you may create a pool of 50 questions, and every learner will receive a random 25.

The downside of this approach is two-fold. First, you are only measuring immediate recall. Second, you are only measuring recall on a tiny fraction of the total content.

Further, if learners only need to be accurate on 20 of 25 potential questions to “pass,” they only need to understand a fraction of your total concepts to complete their training.

**In OttoLearn, there are no quizzes.** Instead, learners are presented with a personalized selection of Activities. As learners complete these Activities, Otto determines their level of mastery on the corresponding Concepts.

When a knowledge gap is detected, OttoLearn has the learner practice that Concept’s Activities more. For this reason, we recommend creating 3-6 Activities per Concept. Areas that you perceive will have a larger knowledge gap should have more Activities (to provide more practice).

Since Activities are delivered to learners over time, every learner will eventually exercise every Activity; this provides **universal coverage** of the material.



# USE INSTRUCTIONAL SCAFFOLDING

Instructional Scaffolding is the framework of supporting and guiding learners to build knowledge and achieve mastery over time. This technique has been proven to improve learning outcomes and retention. Why? Well, information is more likely to reach long-term memory when learners can connect it to other Concepts and previously learned information.

With scaffolding, learners build upon their knowledge gradually by being presented information from least to most complex. This helps fill in knowledge gaps and helps learners create associations between Concepts by giving them something to relate new knowledge to. "Complex" does not necessarily mean that the information is difficult to understand; it may just refer to the fact that the information involves a lot of steps.

For example, imagine you are teaching a course on how to change a tire. You assume that your learners already have some general knowledge about tires and cars but don't know anything about changing a tire.

Using scaffolding, you teach learners where to find the spare tire, then describe what tools they will need, explain how to use the jack, and, lastly, outline the steps for changing the tire. This allows learners to gradually build upon their knowledge.

If you had immediately started explaining how to change a tire (no scaffolding), your learners would have likely had a lot of questions like "What is a lug wrench?", or "How do I lock the wheels?". When learners don't have foundational knowledge, the rest of the information becomes much harder to master and retain.

Scaffolding	No Scaffolding
1. Where to find the spare tire.	Steps for changing the tire. (assumes that learners already know all of the information in steps 1-3 in the scaffolding example).
2. What tools are required.	
3. How to use the jack.	
4. Steps for changing the tire.	

# USE INSTRUCTIONAL SCAFFOLDING

## WHEN TO USE SCAFFOLDING

We recommend including scaffolding in your training in the following situations:

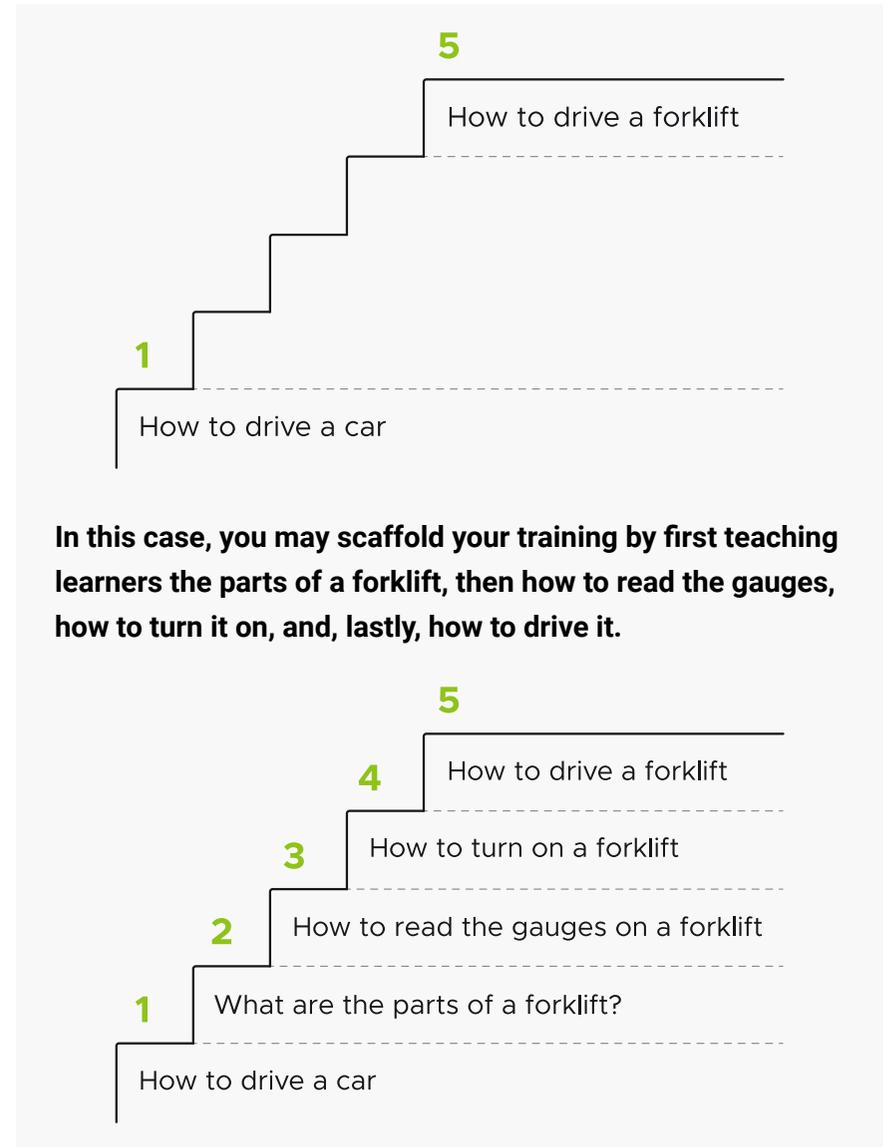
- › When presenting complex information
- › When presenting a topic for the first time
- › When a gap exists between learners' current level of knowledge and the desired level of knowledge

## HOW TO USE SCAFFOLDING TO FILL IN KNOWLEDGE GAPS

First, you need to identify where there are gaps in your learners' knowledge. Then, you need to determine what information is needed to fill those gaps.

You can think of this like a staircase. Learners' current knowledge is the bottom step, and learners' desired knowledge is the top step. You need to provide the steps in between to help learners reach their goal. If steps are missing, learners will stumble or won't be able to reach the next level.

For example, imagine that you need to teach your learners how to drive a forklift. Currently, they have no experience with forklifts, but can draw from their experience driving a car. There is a large gap between what learners currently know and what they need to know. Your job is to fill in these missing steps using scaffolding.



# USE INSTRUCTIONAL SCAFFOLDING

## USE PREREQUISITES FOR SCAFFOLDING

Use prerequisites to establish scaffolded knowledge by setting less complex Concepts as prerequisites to more complex Concepts. This extra structure fills in potential knowledge gaps and allows learners to gradually build upon what they know.

Within Ottolearn, there are two types of prerequisites to choose from – mastery prerequisites and exploration prerequisites.

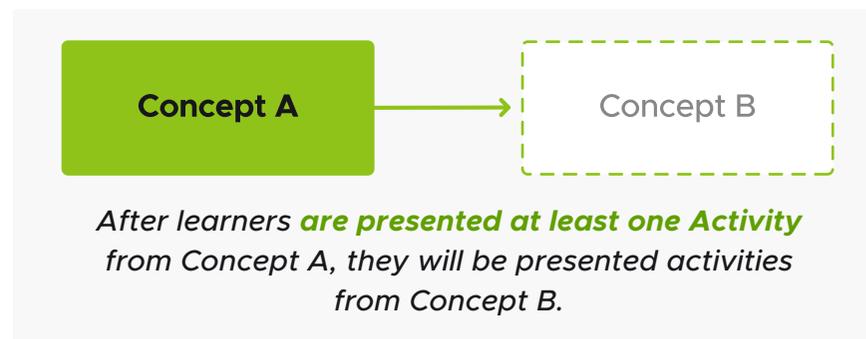
Mastery prerequisites can be set for Modules, Topics, and Concepts. These prerequisites require learners to reach mastery on one or more Concepts before they are presented Activities from one-or-more other Concepts.



Concepts are unique in that you can also set up exploration prerequisites. This means that learners must complete at least one Activity from the Concept (successfully or unsuccessfully) as a prerequisite to being presented another Concept. They merely need to be presented information from the prerequisite Concept, and mastery is not required for the prerequisite to be met.

Level	Mastery Prerequisites	Exploration Prerequisites
Mastery Profile	✗	✗
Module	✓	✗
Topic	✓	✗
Concept	✓	✓
Activity	✗	✗

It is important to use prerequisites carefully to get the maximum benefit from scaffolding. OttoLearn uses spaced repetition, which prevents learners from achieving mastery through short-term cramming. Even with daily practice it will take at least a week for a proficient learner to reach mastery level 5. Therefore, if you use too much scaffolding, you can create situations where learners' progress is artificially delayed.



# USE INSTRUCTIONAL SCAFFOLDING

## SAMPLE SCENARIO (MASTERY PREREQUISITES)

James creates a new Module on Cash Management that covers a variety of topics related to using the cash register. He doesn't want his learners to be presented any information on processing returns until they master how to process a purchase.

To set this up in OttoLearn, he makes the Processing a Purchase Topic a mastery prerequisite to the Processing a Return Topic. Learners will not be presented any information about returns until they master the prerequisite Topic.



*After learners **master** the Processing a Purchase Topic, they will be presented Activities from the Processing a Return Topic.*

## SAMPLE SCENARIO (EXPLORATION PREREQUISITES)

Within the same Module, James creates a Topic on applying discounts. Within that Topic, he creates several Concepts, including one on applying promotional codes and another on applying coupons. He doesn't want his learners to be presented any information about promotional codes, until they are exposed to some information on applying coupons.

To set this up, he makes the Applying Coupons Concept as an exploration prerequisite to the Applying Promotional Codes Concept. This means that his learners must be presented at least one Activity from the Applying Coupons Concept before they will be presented Activities within the Applying Promotional Codes Concept.



*After learners **are presented at least one Activity** from the Applying Coupons Concept, they will be presented Activities from the Applying Promotional Codes Concept.*

## USE INSTRUCTIONAL SCAFFOLDING

### ADVANCED SCAFFOLDING

What about situations where you want learners to explore some concepts before others **and** demonstrate some proficiency?

In these situations, use mastery prerequisites, but set a lower mastery goal for prerequisite Concepts. This will create scaffolding without holding up your learners from progressing in your content.

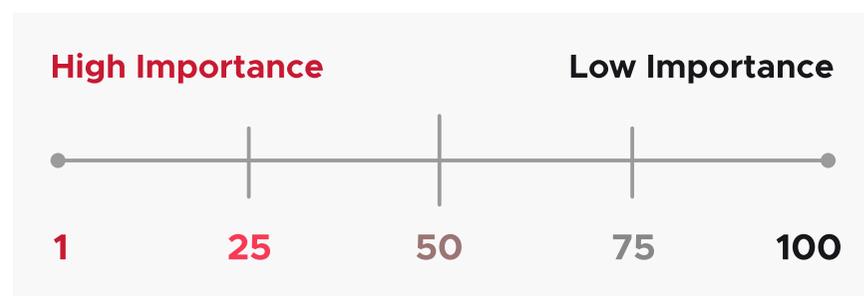
For example, imagine you are delivering training on SMART goals. Before going in depth, you want learners to understand each letter in the acronym. You create a Concept for each letter (S, M, A, etc.), and set each Concept to have a mastery goal of *Level 2: Aware*. Then, you set these Concepts as mastery prerequisites to the other material.

## USE IMPORTANCE LEVEL TO PUT CONCEPTS IN THE FAST LANE

Using importance level, you can prioritize some Concepts over others by putting them in the fast lane. For example, imagine that your store recently had a major shoplifting incident. In response, you want the system to prioritize the Theft Prevention Concept.

Importance can range from 1 (high importance) to 100 (low importance). Think of this is like placement in a race; the best – or in this case, most important – comes in first.

OttoLearn considers the importance level of a Concept when determining what information to present to learners. Specifically, the system will try to get more important items mastered sooner, and keep them mastered, compared to items that are less important.



For example, all things being equal, if the Theft Prevention Concept has an importance level of 15 and the Greeting Customers Concept has an importance level of 65, the system will try to have learners master the Theft Prevention Concept first.

# USE IMPORTANCE LEVEL TO PUT CONCEPTS IN THE FAST LANE

By default, the importance level of each Concept is set to 50. We recommend leaving this setting unless you have a specific need to change the priority of a Concept.

## WHEN TO EDIT THE IMPORTANCE LEVEL

We recommend using importance level sparingly, to identify Concepts that contain critical information. You may also want to change the importance level of a Concept after updating it to correct a mistake, so learners see the updated information sooner.

Level	What can you set?		
	Importance Level	Mastery Prerequisites	Exploration Prerequisites
Mastery Profile	✗	✗	✗
Module	✗	✓	✗
Topic	✗	✓	✗
Concept	✓	✓	✓
Activity	✗	✗	✗

## SAMPLE SCENARIO

Recently, there was an incident in James’ store where a customer slipped and fell on a wet floor. In response, he sets the importance level of the Wet Floors Concept to 10, to raise it’s priority.

James decides not to use prerequisites in this situation, because his Concepts don’t need to be explored or mastered in a specific order.



### ProTip

Use prerequisites instead of importance if you want a specific Concept to be mastered prior to another Concept.

Regardless of a Concept’s importance level, prerequisites will always be considered.

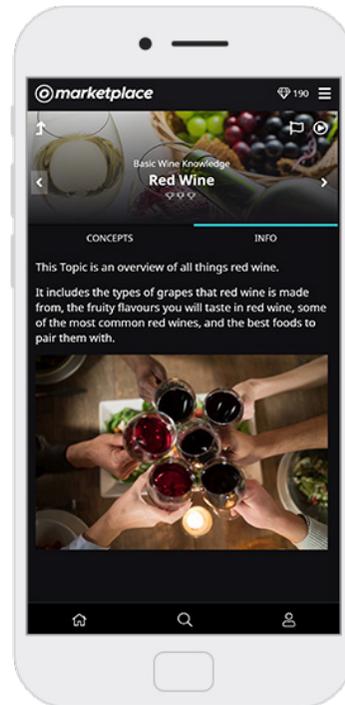
# BEST PRACTICES FOR WRITING KNOWLEDGE CARDS

## BEST PRACTICES FOR WRITING KNOWLEDGE CARDS

Knowledge Cards are a performance support used to facilitate searching and reviewing your content. They allow learners to quickly access the information covered in your Activities.

Effective Knowledge Cards have the following qualities:

- › Focus on the content level
- › Include real-world examples
- › Include meaningful media assets
- › Are easy to read on a mobile device



## UNDERSTAND WHERE TO INCLUDE KNOWLEDGE CARDS

We recommend using Knowledge Cards in the following situations:

### 1. TO PROVIDE INITIAL LEARNING

You can provide your learners the opportunity to read through Knowledge Cards prior to completing Activities.

#### SAMPLE SCENARIO

One of Victoria's learners wants to study before starting her training in OttoLearn.

Victoria suggests that she read through the Knowledge Cards, which include all of the content covered in the Activities.

### 2. FOR ON-DEMAND REVIEW

You can provide learners a performance support that allows them to quickly search for and review your content.

#### SAMPLE SCENARIO

Kevin creates a Concept with six Activities on how to arm the alarm system. In the Knowledge Card, he provides all the key steps and a short video showing the entire process.

## UNDERSTAND WHERE TO INCLUDE KNOWLEDGE CARDS

### 3. TO PROVIDE A PERFORMANCE SUPPORT WITHOUT REQUIRING MASTERY

You can provide Knowledge Cards for content areas where you don't require mastery, and therefore don't want to build Activities.

#### SAMPLE SCENARIO

Andre creates a series of Knowledge Cards explaining the company's benefits package.

Learners may reference this information to see what services are covered, but don't need to demonstrate mastery of the material.

## INCLUDE THE RIGHT CONTENT IN KNOWLEDGE CARDS

Knowledge Cards are a great performance support, with or without related Activities.

When writing your Knowledge Cards, we recommend including the following content.

### COVER YOUR ACTIVITIES

Concept-level Knowledge Cards should, at a minimum, include the content covered within all of your Concept's Activities.

This makes it easy for learners to search for and review your material.

### EXPAND ON YOUR ACTIVITY CONTENT

Although Knowledge Cards should cover all the material presented in your Activities, they are also the perfect place to provide extra details, supplementary content, and links to other documents or sites.

### INCLUDE REAL-WORLD EXAMPLES

Use Knowledge Cards to provide additional examples to your learners. The best examples reflect real-world situations that learners can relate to or may encounter themselves.

The more real you make your scenarios and examples, the better your learners will remember them.

## WRITE EFFECTIVE KNOWLEDGE CARDS

Knowledge Cards and Activity feedback are not the same thing. While feedback should be specific to each Activity, Knowledge Cards should cover all the content covered within a content level.

For example, a **Concept-level Knowledge** Card should include the content covered within that Concept's Activities.

This helps facilitate review, as many learners will use Knowledge Cards to search for and review their training material.

### USE HEADINGS TO DIRECT LEARNERS

Make it easy for learners read and visually scan your content by breaking it into sub-sections.

Ideally, learners should be able to open a Knowledge Card, understand what it is about, and find what they need within a few seconds.

### CONSIDER HOW CONTENT WILL BE DISPLAYED

Some learners may access your Knowledge Cards from their mobile device, while others may view them as a panel on their desktop. In each view, you have limited space to display your content without scrolling.

The following are some best practices for creating content for display on a mobile device or in a panel:

### USE LISTS

Information tends to be easier to visually scan and understand when it is presented as a list.

For example, which of the following is easier to read?

Paragraph Format	List Format
<i>Employees are expected to wear a company-branded shirt, black or navy dress pants, closed-toe shoes, and a name tag.</i>	<i>Employees are expected to wear the following:</i> <ul style="list-style-type: none"> <li>› <i>Company-branded shirt</i></li> <li>› <i>Black or navy dress pants</i></li> <li>› <i>Closed-toe shoes</i></li> <li>› <i>Name tag</i></li> </ul>

- › Use simple language, as shorter words take up less space
- › Be concise to reduce scrolling
- › Include paragraph breaks (white space) to make your content easier to scan
- › Include media that adds value (make sure to test that it displays well on a smaller screen)
- › Use bolding or italics to call attention to key information

## INCLUDE MEDIA ASSETS IN KNOWLEDGE CARDS

You can include images, videos, and audio in your Knowledge Cards.

Media assets can be used to:

- › Explain complex concepts
- › Depict something specific (for example, the location of a button)
- › Include demonstrations

For example, if you create a Knowledge Card describing how to safely load the forklift, it is beneficial to show a properly stacked load.

It is even more beneficial to also show images of improperly stacked loads and describe the hazards they pose.

### ONLY INCLUDE MEDIA ASSETS WITH A PURPOSE

Ignore anyone who says training content needs images, videos, audio, or any other media assets for learners to learn (remember, the conventional concept of learning styles is a myth!).

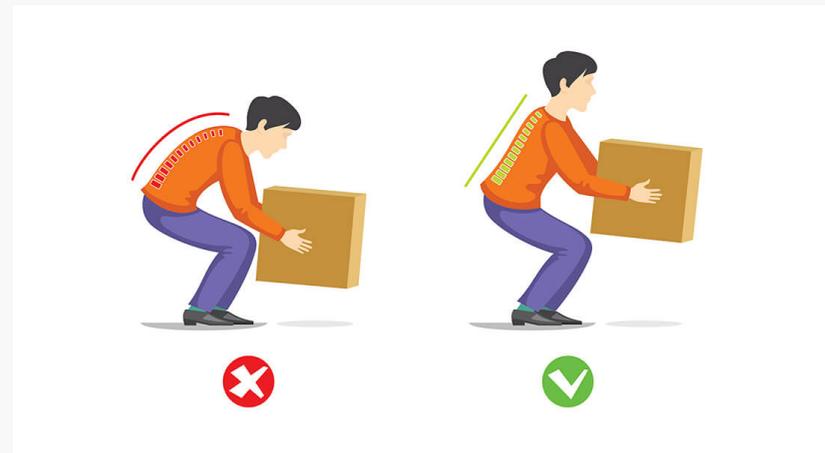
Excess media assets actually have a negative impact on learning, taking up learners' cognitive resources and drawing their attention away from your content.

**Media assets should be purposeful and used only where they will add instructional value.**

### SAMPLE SCENARIO

Josef is teaching his learners how to safely lift a heavy object. Specifically, he wants to get across that they should be lifting with their knees and not bending their back (a common mistake).

He decides to include an image demonstrating the proper technique, as well as an image showing the incorrect technique.



In this scenario, Josef could have also used a video or GIF to demonstrate the proper lifting technique.

## CREATE KNOWLEDGE CARDS FOR DIFFERENT CONTENT LEVELS

You can create Knowledge Cards at the Mastery Profile, Module, Topic, and Concept levels.

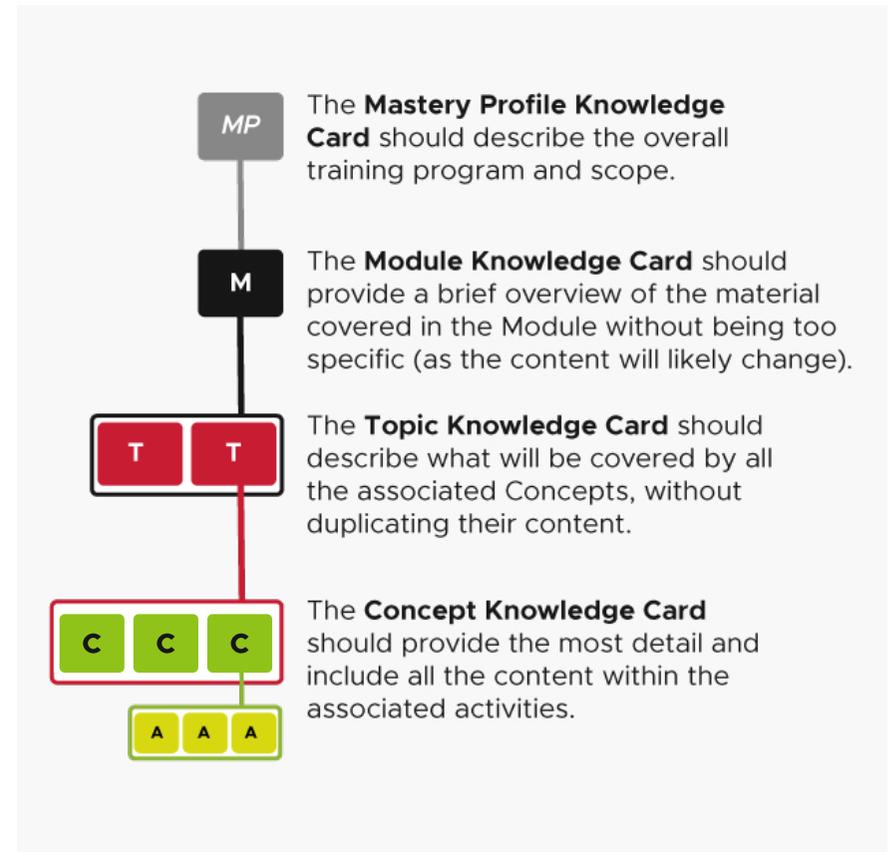
**Each Card should focus on the content at the level at which it appears.**

For example, a Concept-level Knowledge Card should, at a minimum, include all the content covered within the Concept's Activities. Supplementary content may also be provided.

A **Topic-level Knowledge Card** should simply be a summary of the Topic itself, without duplicating all the content covered in its Concept Knowledge Cards.

In the same way, **Module** and **Mastery Profile Knowledge Cards** should simply be introductions to those levels, without duplicating other content.

Avoid creating Knowledge Cards that repeat the same information or act as a table of contents. This can make it harder for learners to sort through search results and scan for information.



**Note**

Currently, **Mastery Profiles** are only used to assign **Modules** to learners and are not visible in the learner interface.

# BEST PRACTICES FOR WRITING ACTIVITIES

## BEST PRACTICES FOR WRITING ACTIVITIES

Good Activities stimulate your learners by simulating real-world scenarios. The main concern of adult learners is relevance; they are cautious with their time and want to know that what they are learning will be applicable to their jobs. Activities should provide learners with virtual experiences and practice that is as relevant as possible.

### There are four main parts of an Activity:

the question, answer, distractors (incorrect answer options), and feedback.

**Question** ? How will you receive your paycheck?

**Answer** ✓ Direct deposit

**Distractors** ✗ Check  
✗ Cash  
✗ eTransfer

**Feedback** ★ You will be paid through direct deposit every two weeks. The money will appear in your account on the Friday of that pay period.

Within OttoLearn, you can create multiple choice Activities in different formats. An effective multiple choice Activity meets the following criteria:

- › Practices the **Concept's knowledge**
- › Includes a **clear** question or statement
- › Includes one or more plausible **distractors**
- › Provides **feedback** after **all responses** (correct or incorrect)
- › Follows **language best practices**
- › Follows **structural best practices**
- › Includes **media assets** (where appropriate)

## INCLUDE DIFFERENT ACTIVITY FORMATS

Although, by definition, all of the Activities in OttoLearn are multiple choice, you can format your Activities in several ways.

**Multiple Choice:** Set a scenario and either ask a question or write a statement to be completed by learners.

**Fill-in-the-Blank:** Have learners select the correct word or phrase that fills in a statement.

**True/False:** Present a statement and have learners determine if it's true or false. This is the most common Activity type.

There are many variations of this Activity format, including:

**Yes/No:** Ask learners a question that has a yes or no response. This is one of the easier Activities to write.

**Yes/No List:** Write a question and list a few options. Learners must determine if the correct answer is listed or not.

We recommend using these different Activity formats throughout your training, as learners are most likely to retain information that is practiced from multiple points of view.

Additionally, ask your learners different kinds of questions – make some about navigating scenarios and others about factual recall.

# INCLUDE DIFFERENT ACTIVITY FORMATS

## SAMPLE SCENARIO

Janet is ready to start adding Activities to her Ladder Safety Concept. She wants her learners to practice the material in a few different ways, so she creates the following Activities:

### Multiple Choice

When should you lock the ladder in place?

- a. When retrieving items above the third shelf
- b. When retrieving items above the fourth shelf
- c. When retrieving items on the top shelf
- d. All of the above

#### Feedback

Regardless of how high you are climbing, always lock the ladder in place. Even when the ladder is not in use, it must still be locked.

### Yes/No

Do you need to lock the ladder in place when climbing three rungs or less?

- a. Yes
- b. No

#### Feedback

Always lock the ladder in place, regardless of how high you are climbing it.

### Fill-in-the-Blank

You should lock the ladder in place \_\_\_\_\_.

- a. when using it to get an item for a customer
- b. when using it to restock the shelves
- c. when it is not in use
- d. at all times

#### Feedback

Always lock the ladder in place, even when it is not in use.

## INCLUDE DIFFERENT ACTIVITY FORMATS

Within one of her other Concepts, the Greeting Customers Concept, Janet creates the following Activities:

### True/False

*When a customer walks into the store, you should say, "Hello, can I help you find something today".*

- a. True
- b. False

### Feedback

*Greet every customer who walks into the store and offer them assistance.*

### Yes/No List

*Are any of the following the right way to greet a customer?*

- > *"Hello, welcome to Fina Shoes."*
  - > *"Hi, have you seen our latest flyer?"*
  - > *"Hi, how are you today?"*
  - > *"Hello, have you heard about our latest promotion?"*
- a. Yes
  - b. No

### Feedback

*Greet every customer who walks into the store and offer them assistance. While helping the customer, tell them about the latest promotions and mention items in the flyer that relate to what they are looking for.*

## WRITE EFFECTIVE TRUE/FALSE ACTIVITIES

True/False Activities present a statement and have learners determine if it's "true" or "false." This is the most common Activity type.

There are many variations of this Activity format, including:

### Yes/No

Ask learners a question that has a yes or no response. This is one of the easier Activities to write.

*Do you need to wear steel-toed boots when working in the warehouse?*

- a. Yes
- b. No



### ProTip

**Be careful not to overuse the true/false Activity format, as it is easy to guess and doesn't test learners' deeper knowledge. For example, a learner may recognize that a statement is false but may not know why.**

# WRITE EFFECTIVE TRUE/FALSE ACTIVITIES

## Yes/No List

Write a question and list a few options. Learners may need to determine if all of the listed answers are correct.

*Are all of the following people involved in the hiring process?*

- › Store manager
- › Team leader
- › Supervisor
- › District manager

- a. Yes
- b. No

Or, they may need to determine if one or more of the listed answers are correct.

*Are **any** of the following people involved in the hiring process?*

- › Store manager
- › Team leader
- › Supervisor
- › District manager

- a. Yes
- b. No

**When using the true/false Activity format, or any variations, we recommend the following best practices:**

- › Ensure all statements are clearly “true” OR clearly “false”
- › Test one idea per Activity
- › Keep all statements around the same length
  - For example, all “true” statements should not be longer than all “false” statements

**When using the yes/no list Activity format, we recommend that you also do the following:**

- › Include 4 items in your yes/no list
- › Arrange yes/no list items in a logical order
  - For example, arrange numerical values or dates from lowest to highest



**Yes/No list Activities tend to require a bit more effort to write because of the “list” aspect.**



Using scaffolding, you can gradually present learners with increasingly complex Activities. When presenting these higher-level Activities, it becomes less important to test one idea at a time because learners have already reached a higher level of mastery.

# WRITE EFFECTIVE TRUE/FALSE ACTIVITIES

## EXAMPLE 1

Poor True/False Activity	Good True/False Activity
<p><i>True or false: Before starting the forklift, check the perimeter for obstacles and sign it out in the Daily Tracking binder.</i></p> <p>a. True</p> <p>b. False</p>	<p>1. <i>True or false: Before starting the forklift, check the perimeter for obstacles.</i></p> <p>a. True</p> <p>b. False</p> <hr/> <p>2. <i>True or false: Before using the forklift, sign it out in the Daily Tracking binder.</i></p> <p>a. True</p> <p>b. False</p>

The poor Activity tests more than one idea. Test one idea at a time to get a more accurate measure of learners' knowledge.

In this example, you are asking learners about checking the area around the forklift and signing it out. How do you determine which

area they understand and which they don't? It's better to create two separate Activities. Covering one idea per Activity helps reduce the cognitive load on learners, by allowing them to focus their mental energy on one thing at a time.

## EXAMPLE 2

Poor Yes/No List Activity	Good Yes/No List Activity
<p><i>Is the maximum weight the forklift can carry listed below?</i></p> <ul style="list-style-type: none"> <li>&gt; 2000 lbs</li> <li>&gt; 500 lbs</li> <li>&gt; 2500 lbs</li> <li>&gt; 1000 lbs</li> </ul> <p>a. Yes</p> <p>b. No</p>	<p><i>Is the maximum weight the forklift can carry listed below?</i></p> <ul style="list-style-type: none"> <li>&gt; 500 lbs</li> <li>&gt; 1000 lbs</li> <li>&gt; 2000 lbs</li> <li>&gt; 2500 lbs</li> </ul> <p>a. Yes</p> <p>b. No</p>

The poor Activity doesn't arrange the answers in a logical order, so learners need to work harder to try and make sense of them. In this case, arranging the numbers in ascending order makes them easier to read and follow.

## WRITE EFFECTIVE MULTIPLE CHOICE ACTIVITIES

Multiple choice Activities present a question to learners, followed by the correct answer and several distractors (typically 3-5). This Activity type may include answer options such as “all of the above”, “none of the above”, or “both b and c.”

When creating a multiple choice Activity, you are testing for:

- › recall of information
- › understanding of concepts

You are **not** testing for reading ability, so your questions and answer options should be easy to read and follow.

When using the multiple choice Activity format, we recommend the following best practices:

- › Test one idea per Activity
- › Write questions in the form of a question or incomplete sentence
- › Use positive phrasing
 

If you have to use negative phrasing, highlight negative words using bold, underline, or both (for example, which of the following are **not**, all of the following except)
- › Provide four answer options, except in situations where having more or fewer options makes sense (for example, a) less than, b) equal to, c) greater than)

- › Ensure all answer options are related and grammatically similar, including the distractors
- › Arrange answer options in a logical order
 

For example, arrange numerical values or dates from lowest to highest

### EXAMPLE 1

Poor Multiple Choice Activity	Good Multiple Choice Activity
<p><i>What day of the week will you be paid and how will you receive your paycheck?</i></p> <ul style="list-style-type: none"> <li>a. <i>Monday; through direct deposit</i></li> <li>b. <i>Monday; in the mail</i></li> <li>c. <i>Friday; through direct deposit</i></li> <li>d. <i>Friday; in the mail</i></li> </ul>	<p><i>What day of the week will you be paid?</i></p> <ul style="list-style-type: none"> <li>a. <i>Monday</i></li> <li>b. <i>Wednesday</i></li> <li>c. <i>Friday</i></li> <li>d. <i>Sunday</i></li> </ul>

The poor Activity tests more than one idea. Test one idea at a time to get a more accurate measure of learners' knowledge.

## WRITE EFFECTIVE MULTIPLE CHOICE ACTIVITIES

In this example, you are asking learners when they will receive their paycheck and how they will receive it. How do you determine which area they understand and which they don't? It's better to ask learners two separate Activities. Covering one idea per Activity helps reduce the cognitive load on learners, by allowing them to focus their mental energy on one thing at a time.

### EXAMPLE 2

Poor Multiple Choice Activity	Good Multiple Choice Activity
<p><i>What time does the store close on Sunday?</i></p> <p>a. 8:00 PM</p> <p>b. 4:00 PM</p> <p>c. 6:00 PM</p> <p>d. 10:00 PM</p>	<p><i>What time does the store close on Sunday?</i></p> <p>a. 4:00 PM</p> <p>b. 6:00 PM</p> <p>c. 8:00 PM</p> <p>d. 10:00 PM</p>

The poor Activity doesn't arrange the answers in a logical order, so learners need to expend extra effort to try and make sense of them. In this case, arranging the times in ascending order makes them easier to read and follow.

## WRITE EFFECTIVE FILL-IN-THE-BLANK ACTIVITIES

Fill-in-the-blank Activities present learners a statement with a missing word or phrase, followed by the correct answer and several distractors (typically 1-3). This Activity type tests a learner's ability to recognize the correct answer.

When using the fill-in-the-blank Activity format, we recommend the following best practices:

- › Test one idea per Activity (one blank per Activity)
- › Keep statements short
- › Make the blank in the statement the same size in every Activity
  - For example, we always make the blank ten underscores. This helps establish consistency between your Activities. (Your answer options should be similar in length to each other, but don't have to be the same length as the blank.)
- › Provide enough information in the statement so that learners understand what is being asked
- › Try to put the blank near the end of the statement
- › Ensure all answer options are related and grammatically similar, including the distractors
- › Avoid giving grammatical hints

For example, if a statement ends with "an \_\_\_\_\_," learners will know the answer starts with a vowel. Either rewrite the statement or use "a(n) \_\_\_\_\_" instead.

# WRITE EFFECTIVE FILL-IN-THE-BLANK ACTIVITIES

## EXAMPLE 1

Poor Fill-in-the-Blank Activity	Good Fill-in-the-Blank Activity
<p>_____ is our busiest month.</p> <ul style="list-style-type: none"> <li>a. March</li> <li>b. June</li> <li>c. September</li> <li>d. December</li> </ul>	<p>Our busiest month is _____.</p> <ul style="list-style-type: none"> <li>a. March</li> <li>b. June</li> <li>c. September</li> <li>d. December</li> </ul>

In the poor Activity, the blank appears near the start of the statement, which means learners need to read it once to understand the context, and then a second time when determining what option fills in the blank.

## EXAMPLE 2

Poor Fill-in-the-Blank Activity	Good Fill-in-the-Blank Activity
<p>Ask your manager for assistance if a customer wants to return a _____ item.</p> <ul style="list-style-type: none"> <li>a. expensive</li> <li>b. opened</li> <li>c. unopened</li> <li>d. damaged</li> </ul>	<p>Ask your manager for assistance if a customer wants to return a(n) _____ item.</p> <ul style="list-style-type: none"> <li>a. expensive</li> <li>b. opened</li> <li>c. unopened</li> <li>d. damaged</li> </ul>

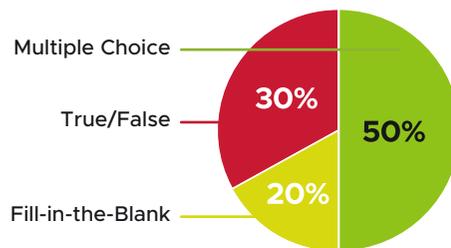
The poor Activity provides a grammatical hint. Since the statement ends with “a,” learners know the answer must be “damaged.” Instead, rewrite the statement using “a(n),” or ensure all the answer options start with a vowel.

# USE AN APPROPRIATE MIX OF ACTIVITIES

Learners learn best when they are presented information from multiple points of view. A great way to add this variation to your training is by using a variety of Activity formats.

Although you should always consider which Activity format best fits your content, as a general rule we recommend using the following ratio of Activities:

- > 50% multiple choice
- > 30% true/false (and its variations)
- > 20% fill-in-the-blank



**We recommend limiting your use of the true/false Activity format (and its variations) to 30% of your total Activities or fewer.** Variations include yes/no and yes/no list Activities. Why? Activities that use the true/false format are easy to guess because learners have a 50% chance of being correct. In addition, these Activities don't always test whether learners actually know the right answer.

For example, imagine a learner answers "false" to the following Activity.

*True or false: If you are going to be late, you must notify your store manager.*

- a. True ✓
- b. False

Although the learner is correct, how do you know if they actually know the right answer? Do they know they should actually notify their supervisor?

What about this Activity?

*Is our top-selling women's shoe listed below?*

- > Gloria Gladiator Sandal ✓
  - > Betty Birkenstock
  - > Shelly Slide
  - > Felicia Flip Flop
- a. Yes ✓
  - b. No

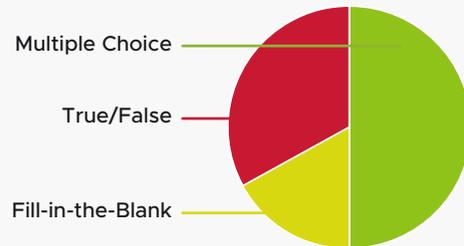
Even though only the first list item is correct, the learner will still get the Activity right if they think any of the other statements are correct — since the answer will still be "yes."

## USE AN APPROPRIATE MIX OF ACTIVITIES

### SAMPLE SCENARIO

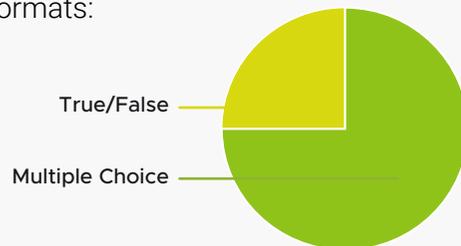
Janet needs to create six Activities in the Dressing for Success Concept. Based on our recommendations, she uses the following Activity formats:

- › Three multiple choice
- › Two true/false
- › One fill-in-the-blank



In another Concept, the Making a Good First Impression Concept, she needs to create four Activities. This time, she uses the following Activity formats:

- › Three multiple choice
- › One true/false



### ProTip

Always use an Activity format that is appropriate for your content. Our recommended ratio is just a guideline to help ensure your learners exercise the knowledge in different ways.

## INCLUDE MEDIA ASSETS IN ACTIVITIES

You can include images, videos, and audio in your Activity questions, answers, and feedback.

Media assets can be used to:

- › explain complex concepts
- › depict something specific (for example, the location of a button)
- › include demonstrations

For example, if you create an Activity asking learners to identify different footwear styles, it is beneficial to include a supplementary image showing each style.

### ONLY INCLUDE MEDIA ASSETS WITH A PURPOSE

Ignore anyone who says training content needs images, videos, audio, or any other media assets for learners to learn (remember, the conventional concept of learning styles is a myth!).

Excess media assets actually have a negative impact on learning, taking up learners' cognitive resources and drawing their attention away from your content.

**Media assets should be purposeful and used only where they will add instructional value.**

# INCLUDE MEDIA ASSETS IN ACTIVITIES



For example, imagine you are delivering training on how to use the cash register. You create an Activity asking learners what button to press to reprint the receipt. There is little benefit in showing an image of a receipt, but there *is* benefit in showing an image of the cash register with an arrow indicating where to find the button.



## SAMPLE SCENARIO

Janet is teaching her learners how to identify hazards in the workplace. She creates the following Activity to practice identifying the flammable hazard symbol.

*Which of the following symbols indicates that an item is flammable?*



### Feedback

*Flammable items are indicated by the following symbol:*   
*Be sure to keep flammable items away from heat or open flames.*

Janet includes images in this Activity because on the job learners will need to identify hazards by looking at symbols, not words.

To ensure all of her users can access this content, she adds alternative text describing each image. For example, for the "flammable" symbol, she adds the following alt text: "flame with solid line beneath it".

## WRITE EFFECTIVE ACTIVITIES: LANGUAGE BEST PRACTICES

Content directly drives learning efficiency. For example, content that is easy for learners to digest will focus their energy on learning and facilitate retention.

You can make your Activities easy to master and digest by adhering to the following language best practices:



### ProTip

**Most learners want to learn quickly and will skip over content they don't think is relevant.**

### BE CONCISE

For all aspects of your content – whether it's your question, distractors, or answer feedback – use as few words as possible.

Be ruthless about eliminating extra content and words. Make your content as short as possible but not so short that it loses its meaning.

### USE PLAIN LANGUAGE

Write simply and personably; don't use a long word when a short one works just as well. Be friendly and use language and jargon that is appropriate for your learners. Either introduce learners to new terms gradually (using scaffolding), or only use terms you are confident they will understand.

Which of the following sounds better to you?

*What is the correct sequence of operations when turning on the forklift?*

*What are the right steps for turning on the forklift?*

What about these two questions?

*What is a good precaution to avoid injuring yourself when using the forklift?*

*How can you prevent injury when using the forklift?*

It is important to use plain language for several reasons:

- › To prevent learners from disengaging because they don't understand the words being used
- › To make the content more accessible to learners who are taking the training in a secondary language
- › To make the training easier to read on a mobile device

# WRITE EFFECTIVE ACTIVITIES: LANGUAGE BEST PRACTICES

## USE THE ACTIVE VOICE

The active voice is much more direct and easy to follow, compared to the passive voice.

For example, notice how much easier it is to read the active voice in these examples.

Passive Voice	Active Voice
<i>Every customer should be greeted.</i>	<i>Greet every customer.</i>
<i>The forklift should be parked in the designated area.</i>	<i>Park the forklift in the designated area.</i>

Typically, when using the active voice, the subject of the sentence does something.

## WRITE IN THE 2<sup>ND</sup> PERSON (“YOU”)

The 2<sup>nd</sup> person uses the word “you,” as shown in the example below.

3 <sup>rd</sup> Person	2 <sup>nd</sup> Person
<i>Keep <b>the</b> work area clean.</i>	<i>Keep <b>your</b> work area clean.</i>

The 2<sup>nd</sup> person helps make your training feel more personalized and conversational; it speaks directly to your learners.

When learners feel like they are in a conversation, they automatically start to follow social conventions and:

- > engage more
- > pay attention
- > try harder
- > learn better

## AVOID GENDER-BIASED LANGUAGE

“Don’t use gender-specific terms when there are gender-neutral alternatives. For example, use the singular ‘they’.

While gender-neutral language does not improve learning directly, it shows sensitivity and removes a possible distraction.

For example, which question is more inclusive?

<i>What should you do if your coworker tells you <b>she</b> had an accident with the forklift?</i>	<i>What should you do if your coworker tells you <b>they</b> had an accident with the forklift?</i>
--	---

The use of the singular they hasn’t been adopted by all grammarians, so another way to avoid gender-biased language is to use characters and scenarios.

## WRITE EFFECTIVE ACTIVITIES: LANGUAGE BEST PRACTICES

For example, the following question can be rewritten as a scenario.

Original	Scenario
<p><i>What should you do if your coworker tells you she had an accident with the forklift?</i></p>	<p><i>What should you do if your coworker, Sarah, tells you she had an accident with the forklift?</i></p>

### USE LISTS

Lists are a great way to present your content because they:

- › help learners focus on one element at a time
- › reduce the effort required to build a mental model
- › are typically easier to consume
- › add order when presenting sequential steps

### CHECK YOUR GRAMMAR

Poor grammar, spelling mistakes, and typos distract learners from the training material and have a negative impact on learning.

For example, which sentence is easier to read?

<p><b>Ever</b> drive the forklift without a seatbelt.</p>	<p><b>Never</b> drive the forklift without a seatbelt.</p>
---	--

Learners will not trust information that is full of careless mistakes. Poor grammar and spelling can also create confusion – making learning more difficult and frustrating.



**Note**

**A lot of these problems can be avoided if you carefully proofread your content and launch your training to an initial pilot group.**

## WRITE EFFECTIVE ACTIVITIES: STRUCTURAL BEST PRACTICES

In addition to writing clear Activities, it is important to structure them in a logical way. This makes it easier for learners to consume the material, by allowing them to focus on the content instead of trying to understand what is being asked.

We recommend creating Activities that adhere to the following structural best practices:

### ADDRESS ALL CONCEPTS

In traditional eLearning, you must compromise on which information you'll actually assess within a quiz, since you can only ask learners so many questions within a single session.

In OttoLearn, you can create a Concept for every single unit of knowledge. **Since Activities are delivered over time, learners exercise 100% of your content.**

### CREATE THE RIGHT NUMBER OF ACTIVITIES

We recommend creating 3-6 Activities per Concept. Areas that you perceive will have a larger knowledge gap should have more Activities (to provide more practice).

If you feel that more than six Activities are needed, consider splitting up your content into multiple Concepts instead.

For example, you determine that the Recruiting Employees Concept needs 15 Activities to properly exercise the knowledge. After taking another look at the content, you realize that it can be broken into three Concepts instead: Recruiting Online, Recruiting at Events, and Recruiting at Job Fairs.

### INCLUDE FEEDBACK AFTER EVERY ACTIVITY

Feedback is a powerful part of any Activity. In addition to providing learners with the answer, it also helps them understand why that answer is correct. This level of understanding helps learners master and better retain the information. We cover feedback in more detail in [another section](#).

### PRACTICE CONCEPTS FROM MULTIPLE PERSPECTIVES

When creating a traditional eLearning course, many instructional designers feel limited in how many Activities they can create. Although they know it's best to exercise each idea from multiple points of view, they typically only ask one or two questions per idea to avoid making their course too long or redundant. This is because many traditional courses present learners all of the activity/quiz questions in a single session.

## WRITE EFFECTIVE ACTIVITIES: STRUCTURAL BEST PRACTICES

In OttoLearn, learners' true mastery of a Concept is determined by how well they do over a range of Activities, delivered over time. Since the material is presented in short sessions, it can be practiced from multiple perspectives without seeming repetitive. This allows instructional designers to focus on creating Activities that improve learners' understanding and retention, instead of worrying about course length.

There are several reasons why you should exercise your material from multiple perspectives:

- › Repetition improves retention
- › Seeing information presented in different ways helps learners create stronger connections to existing knowledge (**scaffolding**)
- › More scenarios can be practiced, better preparing learners for situations they may encounter in the real world
- › Learners will be less likely to identify a pattern and recognize the "correct" answer without actually knowing or mastering the concept

### *Traditional eLearning Course*

A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A

### *Converted to OttoLearn Agile Microlearning*

A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A
A	A	A	A	A	A	A	A	A	A

# WRITE EFFECTIVE ACTIVITIES: STRUCTURAL BEST PRACTICES

## SAMPLE SCENARIO

James is creating Activities for a Concept on identifying hazardous materials. His employees work in an environment with corrosive materials, so it is important that they can quickly identify the corrosive symbol. He creates the following Activities:

Does the symbol for "corrosive" appear below?



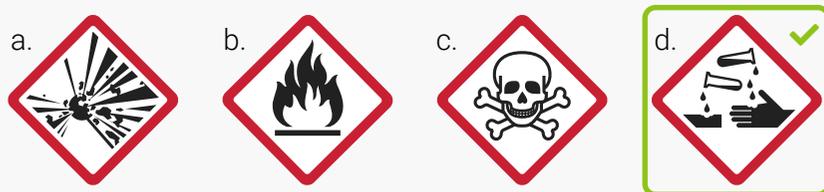
- a. **Yes** ✓
- b. No

Does the symbol for "corrosive" appear below?

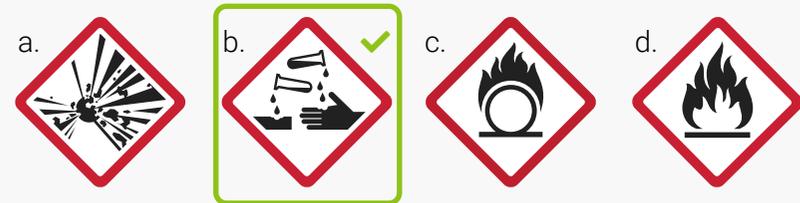


- a. Yes
- b. **No** ✓

Which of the following symbols indicates that a substance is "corrosive"?



Which of the following symbols indicates that a substance is "corrosive"?



What does the following symbol mean?



- a. Toxic
- b. Flammable
- c. **Corrosive** ✓
- d. Explosive
- e. Oxidizer
- f. None of the above

What does the following symbol mean?



- a. Toxic
- b. Flammable
- c. Compressed gas
- d. Explosive
- e. Oxidizer
- f. **None of the above** ✓

## WRITE EFFECTIVE ACTIVITIES: CONTENT BEST PRACTICES

It is important to create Activities with the right content presented in the right way. Learners learn best when they are challenged, but too much challenge can affect learning. For instance, learning is negatively impacted when learners are afraid of making mistakes or looking silly.

In OttoLearn, there is no penalty for not knowing, as the system will automatically provide more practice (in the form of Activities) in areas with identified knowledge gaps. Scaffolding can help to bridge these gaps by moving learners through the material gradually, from least to most complex. Although learners may drop in mastery, the focus is on guidance and coaching through feedback — not passing or failing.

When creating your Activities, we recommend adhering to the following content best practices:

### **INCLUDE JOB-RELATED SITUATIONS**

Give learners a chance to practice responding to situations they may encounter on the job. This way, when learners encounter these same situations in real life, they will be more likely to know what to do.

For example, you may write the following Activity questions:

*Imagine you are helping a customer and your mobile phone starts to ring. What do you do?*

*A customer calls the store and asks if they can put an item on hold. What do you say?*

Situational Activities get learners to apply the information, rather than just recall facts.

### **PRESENT SIMILAR CONTENT IN ACTIVITIES AND KNOWLEDGE CARDS**

Every Concept-level Knowledge Card should, at a minimum, include all the content covered within the Concept's Activities. This makes it easy for your learners to search for and review everything in the Concept in one place.

Further, the feedback for each Activity should only include information presented on the corresponding Concept-level Knowledge Card.

Knowledge Cards may also include supplementary content not covered in your Activities, provided your learners don't need to memorize that content.

## WRITE EFFECTIVE ACTIVITIES: CONTENT BEST PRACTICES

### BE TOUGH (BUT FAIR)

Traditional eLearning courses often include a final quiz full of easy-to-guess quiz questions. Why? There are a couple reasons for this:

- › The measured metric is often just the course completion, not retention of the material
- › LMS platforms aren't adaptive; if a learner fails, they often have to restart the quiz or course

OttoLearn is adaptive and built around retention, so you don't have this limitation. Go ahead and make your Activities tough (but fair); OttoLearn will adapt to your learners' knowledge.

### Easy-to-guess Activities do not add value to your training.

For example, of the two questions below, which one adds more value?

Easy-to-Guess Question	Better Question
<i>True or false: Arrive to work on time.</i>	<i>How early should you arrive for your shift?</i>

## WRITE EFFECTIVE ACTIVITIES: AVOID AMBIGUITY

It is important to make your Activities as specific as possible, while being careful not to use absolutes — like “always” and “never” — unless they are necessary.

We recommend adhering to the following best practices:

### AVOID AMBIGUITY

Focus learners' energy on the material, not interpreting your Activity. This is especially true for situations when an answer is mostly, but not always, true.

Which of the following true/false statements is clearer?

<i>Reward employees.</i>	<i>Reward employees who reach their goals.</i>
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Don't make your learners devote cognitive resources toward understanding what is being asked.

Another way to avoid ambiguity is to ensure each Activity covers a single idea.

For example, let's look at the following true/false statement:

*Employees are added to the payroll as soon as they are hired and will receive benefits three months after their first day of work.*

It is more effective to break this in to two statements, that each cover one idea:

*Employees are added to the payroll as soon as they are hired.*

*Employees will receive benefits three months after their first day of work.*

Try to avoid using ambiguous words such as “usually,” “sometimes,” and “possibly,” unless something is actually ambiguous.

For example, the word “usually” makes the following true/false statement confusing:

*As a full-time employee, you are usually expected to work 40 hours per week.*

This makes learners wonder, do full-time employees sometimes work more or fewer hours? Why do the hours vary? How often do they vary? In this case, it would be better to write: “As a full time employee, you are expected to work a minimum of 40 hours per week.”

Alternatively, the ambiguous phrase “may be” is necessary in the following question, because employees are sometimes — but not always — scheduled for extra shifts:

*During the holiday season, you may be scheduled for extra shifts.*

## **ONLY USE ABSOLUTES WHEN SOMETHING IS ACTUALLY ABSOLUTE**

Unless something is definite, avoid using absolute words such as:

- > Always
- > Never
- > All
- > Any

A lot of learners have been tricked by questions using these words in the past, so they become suspicious and will scan their thoughts to try and find an exception. Unless you are teaching the absolute nature of something — like a zero-tolerance policy — avoid these words.

For example, the following true/false statement is actually false because in some situations — such as an emergency or illness — employees can’t provide adequate notice:

*You must always provide 24 hours notice before missing a shift.*

A better statement would be:

*Whenever possible, provide 24 hours notice before missing a shift.*

## WRITE EFFECTIVE ACTIVITIES: AVOID AMBIGUITY

In situations where there are no exceptions, you can use absolutes to emphasize that something is all or nothing.

For example, the following true/false statements appropriately use absolutes:

*When driving the forklift,  
you must **always** wear  
your seatbelt.*

***Never** lift more  
than 50 lbs.*

Remember, your Activities should be tough but fair. Don't confuse being tough with tricking learners (which isn't fair).

### DOUBLE NEGATIVES ARE A NO NO

Sometimes, you may be tempted to create a quick Activity using double negatives as a shortcut.

For example, you may write a multiple choice question like this:

*Which of the following is **least unlikely** to be a  
customer objection?*

If you find yourself using a double negative, try to revise your Activity. It'll take more time, but your learners will appreciate it.

## WRITE EFFECTIVE DISTRACTORS

Every multiple choice Activity includes two or more answer options. These options include the correct answer along with one or more distractors (incorrect answers).

The effectiveness of an Activity has a lot to do with the distractors you create. Distractors that are unclear or confusing can create frustration, while distractors that are too obvious make it easy for learners to guess.

We recommend creating your distractors with the following best practices in mind:

### WRITE PLAUSIBLE DISTRACTORS

Good distractors are reasonable alternatives to the correct answer and are not obviously wrong. This maximizes the mental effort learners must make in choosing an answer.

For example, in the following Activity it's easy to see the correct answer is "10 days" because the other options are unrealistic.

*How much vacation time will you earn in your first year of work?*

- a. 2 hours
- b. 10 days
- c. 2 months
- d. 100 days

# WRITE EFFECTIVE DISTRACTORS

Keep the answer and all of your distractors similar in length and format. For example, if one answer option starts with a verb, they should all start with a verb; if one option is a sentence, they should all be a sentence. Categorical answers, such as “all of the above” or “none of the above,” are exceptions to this rule.

For example, this Activity has poor distractors:

*What is the first thing you should do if the fire alarm goes off?*

- a. *Leave the warehouse immediately*
- b. *Yell “Fire”*
- c. *Hide*
- d. *You should pull the alarm*

Some better distractors would be:

*What is the first thing you should do if the fire alarm goes off?*

- a. *Leave the warehouse immediately*
- b. *Check your surroundings for danger*
- c. *Turn off your equipment*
- d. *Wait for further instructions*

## **INCLUDE ONLY ONE CORRECT ANSWER**

Make sure that each Activity only has one correct answer. Don’t include distractors that may be correct or are so similar to each other that learners may get confused. Activities are meant to provide learners an opportunity to practice, not trick them.

## **AVOID ANSWER BIAS**

A common mistake is always making the same answers correct. For example, some instructional designers make “all of the above” the correct option whenever it appears. This is called answer bias.

The following tips will help you avoid answer bias:

- › Have the correct answer be random across Activities, so that the correct answer is not always the third option or “all of the above”
- › Have a roughly equal number of Activities where “true” is the correct answer compared to “false” as the correct answer
- › Have a roughly equal number of Activities where “none of the above” is the correct answer compared to “all of the above” as the correct answer
- › Include some Activities where “none of the above” and “all of the above” appear as options, but neither is the correct answer

# WRITE EFFECTIVE DISTRACTORS

## **WHEN TO LOCK YOUR ANSWERS IN A PARTICULAR ORDER**

By default, OttoLearn will randomize the order of your answer options. This adds extra variation to your Activities and prevents learners from just memorizing the answer positions.

Sometimes, it makes more sense to present your answers in a specific order. This predictability and consistency makes it easier for learners to read and understand your Activities.

We recommend locking the following answers in place:

- › When using the true/false Activity format, lock “true” in the top position and “false” in the bottom position
- › When using the yes/no Activity format, lock “yes” in the top position and “no” in the bottom position
- › When using the multiple choice Activity format, lock “all of the above” or “none of the above” in the bottom position (if either one is an answer option)

When including both of these as answer options, lock “all of the above” in the second-to-last position, and “none of the above” in the last position. If you lock “all of the above” in the last position, then “none of the above” will be included in the list of “all” correct answers.

- › When using the multiple choice Activity format with answer options such as “A and B or “B and C,” lock all of the answer options in position

# BEST PRACTICES FOR WRITING FEEDBACK

## BEST PRACTICES FOR WRITING FEEDBACK

Every time learners answer an Activity, they are placing a bet on their knowledge. If they're right, they'll probably spend very little time reading the feedback; however, if they're wrong, they are much more likely to read the feedback because they'll want to know what the correct answer is and **WHY**.

If the feedback doesn't provide a succinct and thorough explanation of why, learners become frustrated and discouraged. Feedback has to be fulfilling.

Imagine you were presented the following question:

*Can full-time employees work overtime?*

What feedback would you prefer?

*Full-time employees can work overtime.*

*Full-time employees can work up to 10 hours of overtime per week, with approval from their manager. These hours are paid out at 1.5 times the employee's base wage.*

### ALWAYS PROVIDE FEEDBACK

OttoLearn will automatically provide feedback immediately after a learner answers an Activity.

#### Feedback is important for several reasons:

- › It provides the correct answer
- › It explains why an answer was wrong (if a wrong answer was chosen)
- › It provides additional details
- › It reinforces learners' knowledge (if the correct answer was chosen)

Every Activity should include feedback, as feedback is the key to delivering your content to learners. Even if a learner answers correctly, feedback can be used as an opportunity to reinforce their knowledge and provide additional details.

Good feedback can have a major impact on the overall learning process and improve future performance. Every time a learner can use feedback to understand why they were incorrect, they are more likely to read future feedback. If they find the feedback to be useless, they will quit reading it and lose motivation. Every time you provide feedback, you are increasing or decreasing the odds that learners will consume feedback in the future.

## INCLUDING MEDIA ASSETS IN FEEDBACK

You can include images, videos, and audio in your feedback.

Media assets can be used to:

- › explain complex concepts
- › depict something specific (for example, the location of a button)
- › include demonstrations

### ONLY INCLUDE MEDIA ASSETS WITH A PURPOSE

Media assets should be purposeful and used only where they will add instructional value.

Excess media assets actually have a negative impact on learning, taking up learners' cognitive resources and drawing their attention away from your content.

For example, when writing feedback for an Activity on setting up a winter footwear display, it is beneficial to include an image showing the recommended display; there isn't much benefit in including a stock image of a single pair of winter boots.

In this case, it may also be beneficial to include a couple images showing how the display should **not** be set up.

### SAMPLE SCENARIO

Harold is teaching his learners how to check the forklift's battery level.

He creates an Activity asking learners the following question:

*Where can you see how much charge is left in the forklift?*

In the feedback, he wants to include an image of the charge indicator. Which image should he choose?



The second image is much better because it shows where the charge indicator is located in proximity to everything else on the instrument panel. There is less benefit in including the first image, because it doesn't provide any context.

# WRITE EFFECTIVE FEEDBACK: LANGUAGE BEST PRACTICES

When writing your feedback, remember that it is the main means of presenting your content to learners. Be sure to write valuable feedback and use terms your learners will understand.

You can write more effective feedback by adhering to the following language best practices:



**ProTip**

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**Most learners want to learn quickly and will skip over content they don't think is relevant.**

## BE CONCISE

For all aspects of your content – whether it's your questions, distractors, or answer feedback – use as few words as possible.

Be ruthless about eliminating extra content and words to make your feedback as short as possible but not so short that it loses its meaning.

## USE PLAIN LANGUAGE

Write simply and personably; don't use a long word when a short one works. Be friendly and use language and jargon that is appropriate for your learners. Either introduce learners to new terms gradually (**using scaffolding**), or only use terms you are confident they will understand.

What feedback sounds better to you?

<p><i>Before turning on the forklift, be sure to check that all of your mirrors are positioned correctly, that your seat is adjusted appropriately, and that there are no hazards in the area surrounding the vehicle.</i></p>	<p><i>Before turning on the forklift, check your mirrors, adjust your seat, and confirm the surrounding area is clear.</i></p>
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Both statements say the same thing, but the second one is much easier to read and understand.

## USE THE ACTIVE VOICE

The active voice is much more direct and easy to follow, compared to the passive voice.

For example, which sentence is easier to read?

Passive Voice	Active Voice
<p><i>Your seatbelt must be put on before starting the forklift.</i></p>	<p><i>Put on your seatbelt before starting the forklift.</i></p>

## WRITE EFFECTIVE FEEDBACK: LANGUAGE BEST PRACTICES

What about these two sentences?

Passive Voice	Active Voice
<i>The schedule will be updated by your manager.</i>	<i>Your manager will update the schedule.</i>

Typically, when using the active voice, the subject of the sentence does something.

### DON'T MAKE THE LEARNER FEEL FOOLISH

Don't make your learners feel foolish or focus inward. These feelings take their attention away from the training and can significantly impact motivation. You don't want learners to think, "Why was I so dumb?" You want them to think about the subject material.

For example, the following feedback may make a learner feel foolish.

*That's incorrect. Turning the forklift at that speed can cause it to tip or lose control. You wouldn't want that to happen, would you? Instead, turn the corner at 3 mph or less.*

Instead, focus on the content.

*Turning the forklift at that speed can cause it to tip or lose control. Instead, turn the corner at 3 mph or less.*

## USE GENERAL & SPECIFIC FEEDBACK

Within OttoLearn, there are two types of feedback:

- › **General feedback** is displayed when a learner selects any answer option in an Activity
- › **Specific feedback** is written for a specific answer option and is displayed when a learner selects that specific answer option in an Activity

Depending on the Activity and your content, you may want to write general feedback for some of your answer options and specific feedback for others.

For example, the following question presents a situation, and each answer has a different outcome.

*After you've locked up the store, a customer starts knocking on the door. What do you do?*

The idea we're trying to get across is to never unlock the door after business hours for the following reasons:

- › Personal safety
- › Theft prevention

In this example, three of the distractors have general feedback, which can be entered at the question level, while the correct answer has specific feedback.

# USE GENERAL & SPECIFIC FEEDBACK

*After you've locked up the store, a customer starts knocking on the door. What do you do?*

Correct Answer	Specific Feedback
<p>c. <i>Keep the door locked and, if you're able to, signal to the customer that you are closed</i></p>	<p><i>This is the best option as the customer will be able to see that you are not ignoring them.</i></p> <p><i>It's not a perfect solution as they may be annoyed, but if you open the door, you are increasing your personal risk and creating an opportunity for theft.</i></p>
Distractor Options	General Feedback
<p>a. <i>Open the door and tell them you are closed</i></p> <p>b. <i>Open the door and tell them what time the store opens tomorrow</i></p> <p>d. <i>Keep the door locked unless they knock on the door</i></p>	<p><i>If you open the door, you are increasing your personal risk and creating an opportunity for theft.</i></p> <p><i>Instead, keep the door locked and signal to them that you are closed.</i></p>

In many cases, it is best to provide different feedback for each answer option (specific feedback). That being said, we understand that this can take a lot of time. When this isn't feasible, make sure that your general feedback at the very least explains what the correct answer is and why it is correct.

Even when time is an issue, we recommend including specific feedback for answer options that represent common mistakes.

For example, imagine you are presenting learners an Activity asking them where to find the first aid kit. Although it's located in the manager's office, many learners think it is located in the kitchen with the fire extinguisher. In this example, it would be worth taking the extra time to create specific feedback for the "kitchen" answer option to explain that yes, that is where to find the fire extinguisher, but that is not where to find the first aid kit.

By acknowledging why this answer is wrong, learners are more likely to remember that the fire extinguisher and first aid kit are kept in different locations.

# WRITE EFFECTIVE FEEDBACK: CONTENT BEST PRACTICES

## FOCUS ON "WHY"

Use feedback to reinforce why an answer is correct or to explain why a distractor is incorrect. It is not helpful to only tell learners if they are right or wrong; they also need to know why. This allows learners to learn from their mistakes and avoid making the same errors again.

For example, what do you think about the feedback for the following Activity?

*True or false: If you want to use a vacation day, you must provide two weeks notice.*

- a. True
- b. False

### Feedback

*If you want to use a vacation day, you must provide two weeks notice.*

Turns out, this type of feedback isn't the best. Some better feedback would be:

### Feedback

*Provide your manager at least two weeks notice so they can reassign your shifts before finalizing the schedule. Typically, the schedule is created two weeks before it is posted.*

## BE SPECIFIC

Don't include fuzzy messages like "be aware of the company's best practices" or "follow our company policies." Instead, be specific.

Consider the two examples, below. Can you see how the specific feedback is much more valuable?

*When ending a conversation with a customer, always follow our best practices.*

*When ending a conversation with a customer, always follow our best practices:*

- › *Ask the customer if you can help them with anything else*
- › *Give the customer your business card*
- › *Tell the customer how they can contact you*

In the second option, learners know exactly what you are referring to and don't need to go searching for additional information.



### ProTip

**Although it is best to write specific feedback for each answer option, explaining why it was right or wrong, this can take a lot of time. When this isn't feasible, make sure that your general feedback explains what the correct answer is and why it is correct. At the very least, we recommend including specific feedback for answer options that represent common mistakes.**

## WRITE EFFECTIVE FEEDBACK: CONTENT BEST PRACTICES

### DON'T PRESENT CONTENT NOT COVERED IN KNOWLEDGE CARDS

Your learners will expect to find all of the content covered in your Activities within the corresponding Concept-level Knowledge Cards.

Therefore, while feedback should be specific to each Activity, it should only include information presented in your Knowledge Cards.

At a minimum, each Concept-level Knowledge Card should include all of the content covered within the Concept's Activities. Knowledge Cards may also include supplementary material that you aren't expecting learners to master.

### AVOID DUPLICATION

Skip commenting on accuracy and repeating the question and answer text. For example, you don't need to include phrases like "that's incorrect" or "not quite" in your feedback. Being correct isn't just about accuracy, it's also about proficiency. The OttoLearn system will consider this in the feedback it provides.

When a learner answers an Activity, they are shown if they were right or wrong and can see the question, answers, and their proficiency.

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What should you do to secure your mobile devices?

RESULT    ALL ANSWERS    PERFORMANCE

Correct Answer

All of the above

Your device could be stolen, misplaced, or lost so to prevent access to it, have it erase itself after 10 unsuccessful login attempts.

By installing your device's latest updates, you are protecting yourself from many attacks.

Viruses can be transmitted through links even on mobile devices; if you receive an unexpected text message with a link you don't recognize - delete it.

Your Mastery Level is unchanged

# NEXT STEPS

Now that you have finished reading this manual, you should have a better understanding of how to structure and create your training content.

As a next step, we recommend signing up for our OttoLearn certification and viewing some of our other training resources.

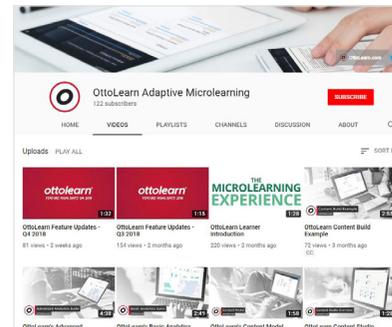


**Implementation Guide**

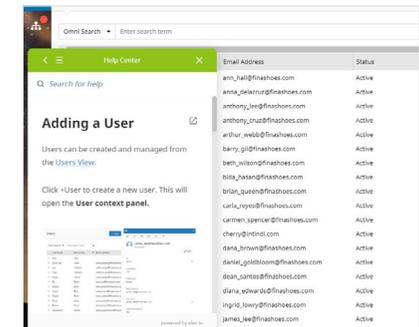


**The Cognitive Science Behind OttoLearn Whitepaper**

**Note** | You can also find all of these resources, and more, on our training page at [link.ottolearn.com/training](https://link.ottolearn.com/training).



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