



[design.horizeducationnetwork.org](https://design.horizeducationnetwork.org)

Welcome to the Designing for Online Learning website! This tool was created to accompany Horizon's *Designing for Online Learning* professional development course, but we also hope that it will be useful to you in your ongoing growth as a course designer.

We have collected posts on this website into three categories: Engagement, Technology, and Learning. The engagement category contains posts about the elements and principles of design, as well as posts about putting it all together. The technology category contains posts about tools and tasks related to online learning technology. The learning category contains posts about learning principles that are helpful for course designers. The learning posts are further divided into subcategories: Understanding Learners, Understanding Learning, Learning Pathways, Backward Design and Developing Content.

We believe that the organizational structure we've chosen for this website is a useful learning tool to help you think about course design. You can see an outline of the categories and subcategories in the Table of Contents.

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# Designing for Engagement



Have you ever picked up a book to read because the front cover caught your eye? Or spent far longer than you intended to spend exploring a website? Good design can lead to greater engagement by the learners with the material. The aesthetic decisions you make in your course can be a powerful tool to increase learner's motivation to engage the material. Thinking through the elements and principles of design can help us craft visually engaging learning artifacts.

**Good design encourages a viewer to want to learn more.**

ALEXANDER ISLEY

Good design evokes interest, motivates engagement, and produces wonders in the hearts of those encountering the work of the designer. In order to do this, designers make use of elements like color, shape, texture, and principles like composition, balance, and symmetry.

We have divided the Engagement posts into three categories.

- The **Elements** category focuses on the basic building blocks of design: line, shape, color, space, texture, etc.
- The **Principles** category focuses on how designers combine elements using alignment, proximity, repetition, symmetry, etc.
- The final category takes a step back to think about the design process of taking the elements and principles and **Putting It All Together**.



## 1.1. Elements of Design

### 1.1.1. Overview



#### 1.1.1.1. Overview (Elements of Design)

By [Jill Zwylghuizen](#)

# Types of Line

Solid



Dashed



Dotted



Vertical



Horizontal



Diagonal



Zigzag



Curved



Freeform



## Uses for Line

Lines divide.  
They can be used  
to form a border  
or separate parts  
of the design.

Lines connect.  
They can form a  
pathway between  
elements of the  
design.

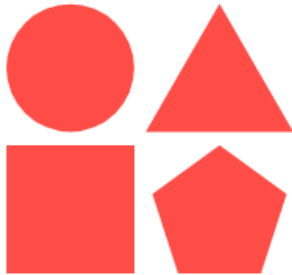
Lines decorate.  
They can also be  
used stylistically  
to enhance the  
design.



## Lines draw attention.

# Types of Shape

Geometric



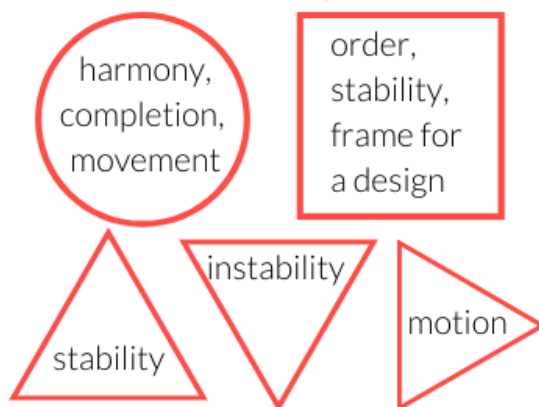
Natural



Abstract



## Meaning of Shape



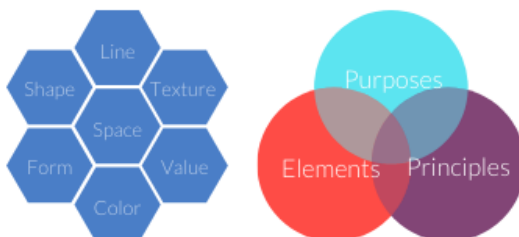
Natural shapes are things from nature or organic shapes like paint blobs.



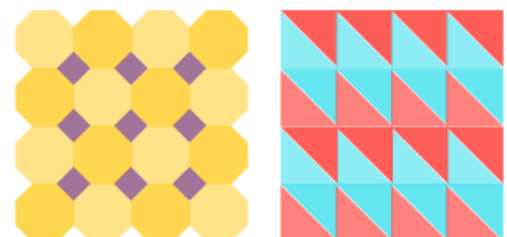
Abstract shapes are representations of everyday objects: icons, symbols, and stick figures.

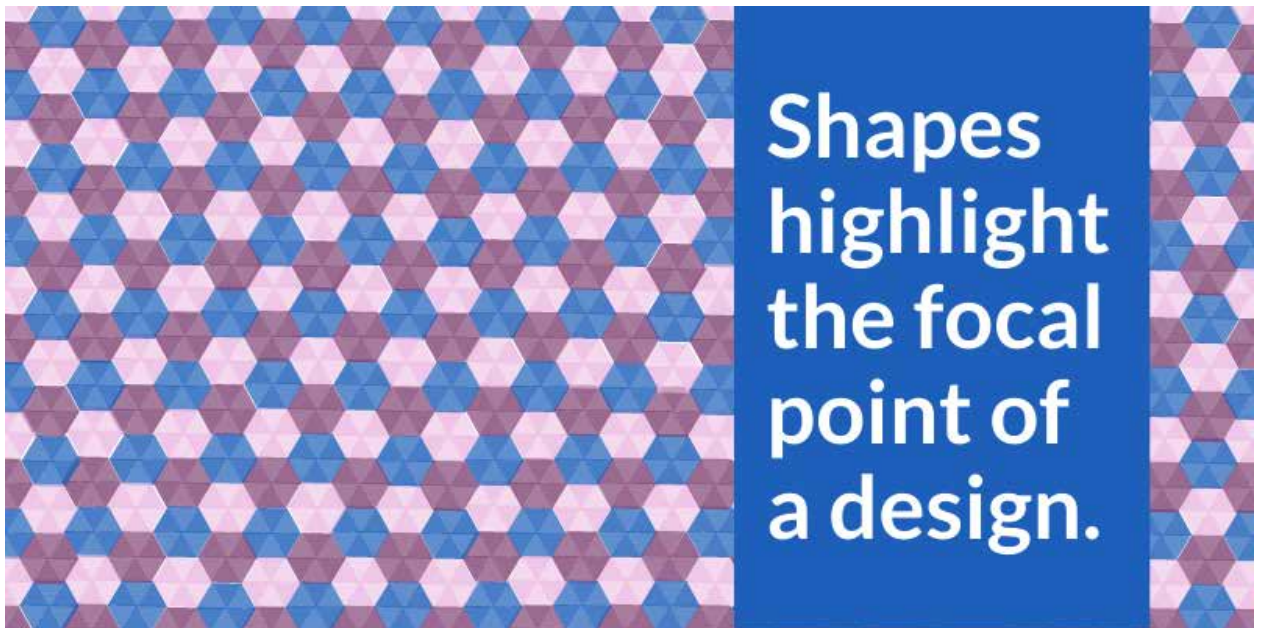
## Shape Combinations

Shape combinations can be used to organize information.



Shapes can also be combined to form patterns.



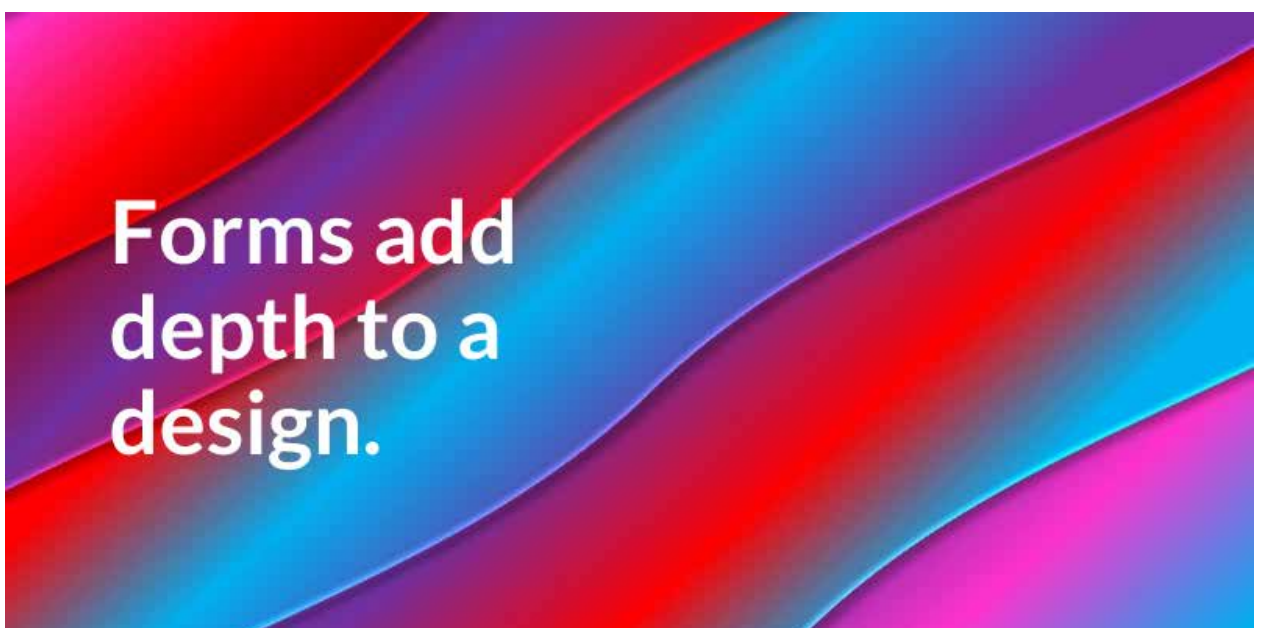


## Form

Two-dimensional designs are given added depth by the use of shadow or layering.



Shapes that are fully three-dimensional are called forms.





# Color



Primary colors and secondary colors combine to make the color wheel.

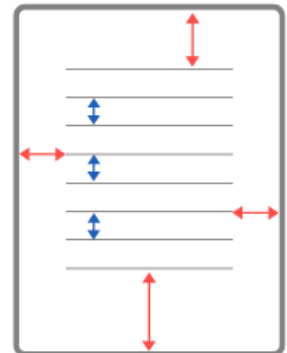
## Color Combinations



# Space

"White space" is the blank area around a design.

**Macro** space refers to larger areas like margins, while **micro** space refers to the area between letters, words, and lines of text. Used effectively, white space makes text easier to read and helps the eye ascertain the composition of a design.



**White space  
need not be  
white.**

# Value

Value refers to how light or dark a color is.



A spectrum of color values is called a gradient.







**Value gives visual weight.**

## Texture

Texture describes what a design would feel like in 3D. It adds both depth and interest to designs. Recent flat design trends eschewed the use of texture, but current design trends are embracing bold colors, gradients, and textures.



**Texture adds  
life to designs.**

**For further reading:**

**Design Elements Overview:** <https://paper-leaf.com/blog/2011/02/elements-of-design-quick-reference-sheet/>

**Line:** <https://www.designmantic.com/how-to/how-to-use-lines-to-create-an-impact-in-graphic-design>

**Shape:** <https://visme.co/blog/geometric-meanings/>

**Form:** <https://prezi.com/ainrd0r6oybc/form-in-graphic-art/>

**Color:** <https://edu.gcfglobal.org/en/beginning-graphic-design/color/1/>

**Value:** <https://www.johnlovett.com/tone>

**Space:** <https://www.interaction-design.org/literature/article/the-power-of-white-space>

**Texture:** <https://blog.depositphotos.com/6-ways-to-use-textures-in-graphic-design-resources-tips-and-examples.html>

## 1.1.2. Line



### 1.1.2.1. Use of Line

By [Jill Zwyghuizen](#)

## Uses of Line

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---

Lines can contain information and separate it from other content.

---

---

Lines can be used to great effect in design. They can be used to organize information. Lines can be used to separate but they can also be used to connect. Lines can create a sense of movement or direction and they can give the eye a path to follow.

Lines can also be used to organize information.

Solid



Dashed



Dotted



Vertical



Horizontal



Diagonal



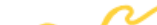
Zigzag



Curved



Freeform



Thick



Medium

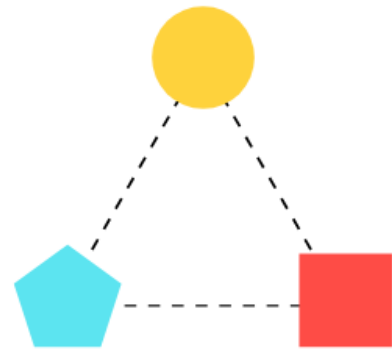


Thin



Lines can be used to connect elements of the design together.

They depict a visual association between separated objects.



As they connect, lines can also draw pathways for the eye to follow as it moves through the design.

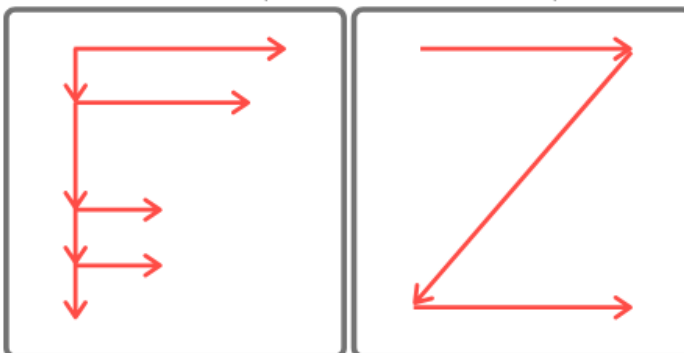


The visual pathway tells a story.

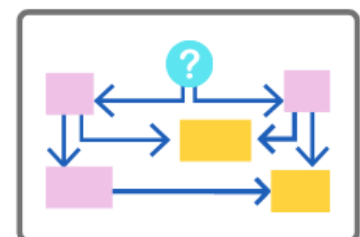
It guides the eye through the design to the most important elements.



With a design that contains a lot of text, the two most common patterns for the eye to follow are the F-pattern and the Z-pattern.



Designers can lead the eye on a different path by using lines to show hierarchy and direction.





### 1.1.3. Shape

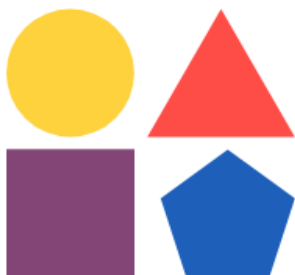


#### 1.1.3.1. Use of Shape

By [Jill Zwyghuizen](#)

## Types of Shape

Geometric



Natural



Abstract



# Geometric shapes

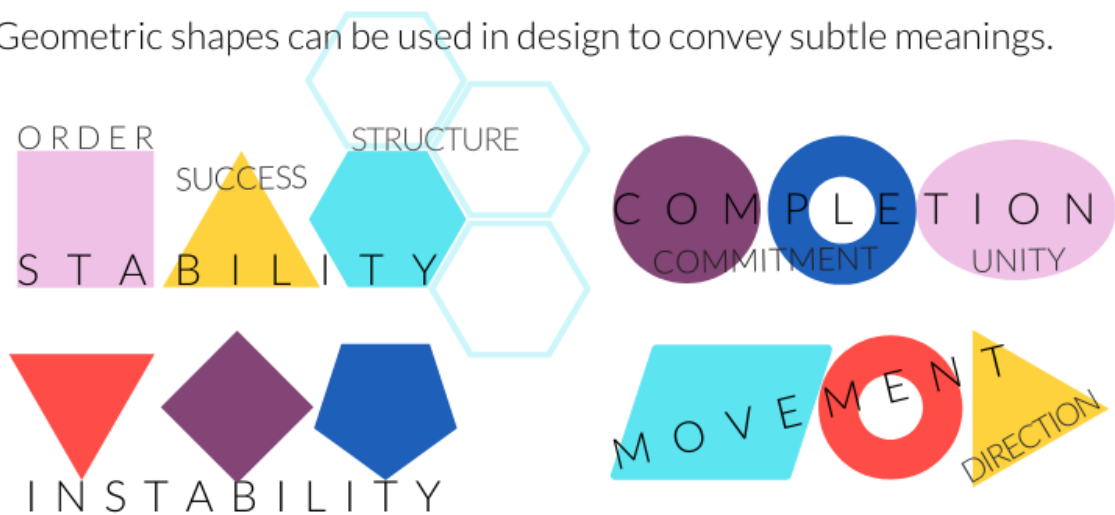


Children learn how to draw geometric shapes and identify them by the number of sides they have: triangles, squares, pentagons, hexagons, octagons, circles.

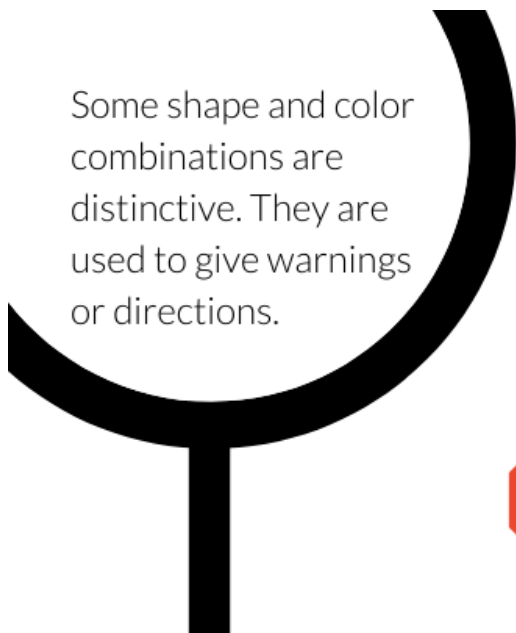
Geometric shapes are commonly seen in everyday objects, whether used on their own or combined into patterns.



Geometric shapes can be used in design to convey subtle meanings.



Some shape and color combinations are distinctive. They are used to give warnings or directions.



Designers make use of these sorts of combinations in expected—or unexpected—ways.





# Natural shapes

Many shapes come from the natural world around us: flowers, leaves, water drops, stars. All of these organic shapes can be found in nature. This category also includes shapes like paint splatters that are formed by humans. They tend to be more freeform and less regular than geometric shapes.



Basic geometric shapes have straight lines and are perfectly symmetrical. They suggest order and stability; in patterns they evoke ideas of repetition, sameness, and predictability.

Natural shapes, on the other hand, tend to have curved, free-flowing lines and they tend to be asymmetrical.



Some organic shapes exhibit symmetry, but many others are not perfectly symmetrical.

They evoke beauty, creativity, artistry, variety, and uniqueness.



# Abstract shapes



Everyday objects can be used to represent concepts pictographically. Icons, symbols, stick figures, and emoji are examples of these kinds of abstract shapes. Their pictographic nature makes them a highly useful communication tool to convey meaning without the use of language.



What do the symbols convey?

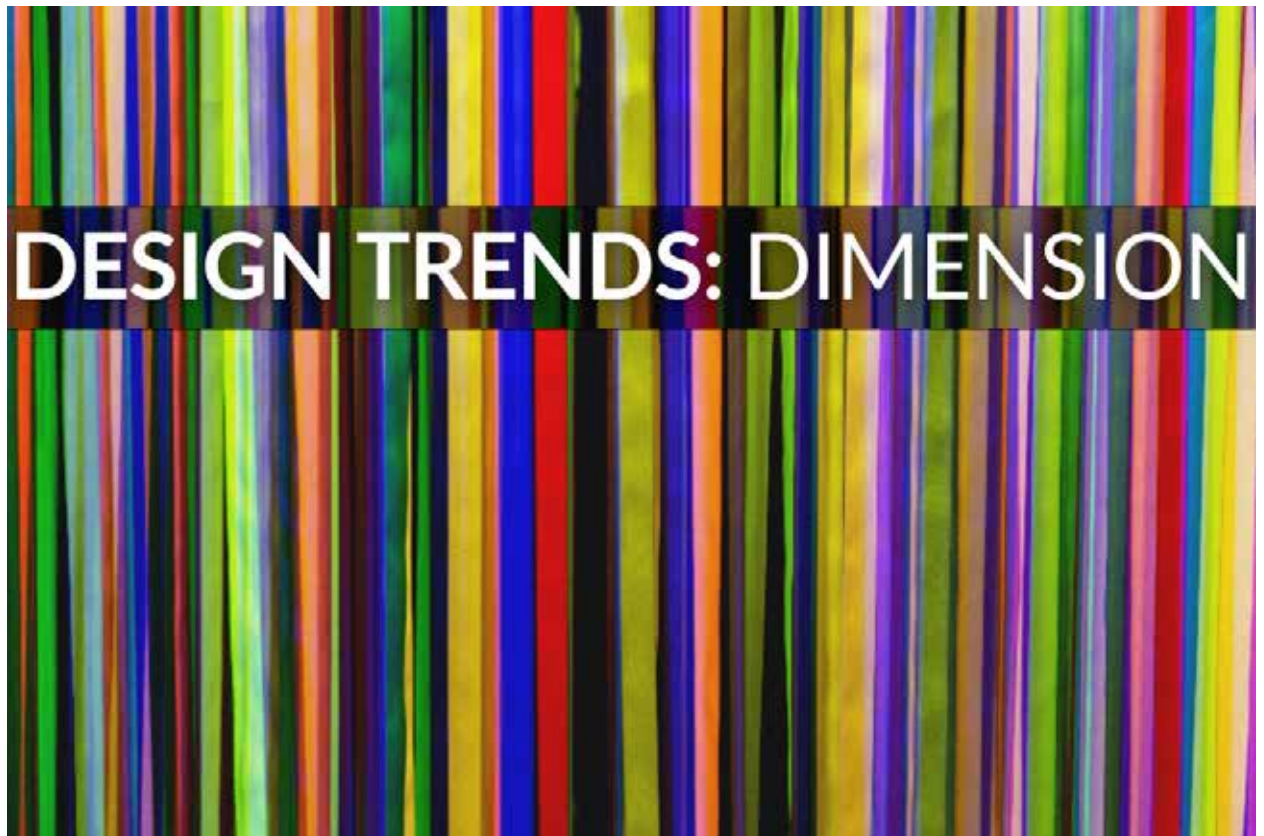
What do the signs represent?

What do the emoji express?



These are powerful design elements that communicate without words.

### 1.1.4. Form



#### 1.1.4.1. Design Trends: Dimension

By [Jill Zwylghuizen](#)

## Skeuomorphism

In the early days of web design, many designers adapted a style called "skeuomorphism" where design elements are made to look like familiar, everyday objects—a floppy disk for saving files, a trash can for deleting them, an envelope for email (even though it doesn't use paper), a telephone receiver for calls (though it doesn't look like a cell phone). Buttons were made to look three-dimensional with shading and beveled edges to suggest they can be pushed.



# Flat Design

Although skeuomorphism helped users adapt to new technology, it tended to lead to designs that looked cluttered. By the early part of the 2010s, a minimalist style called "flat design" gained in popularity. Flat design limits itself to two dimensions and avoids the use of texture, shadows, and gradients in favor of simpler design elements. It provides a great user experience because the design is clean, simple, and easy to scale for different screen sizes.



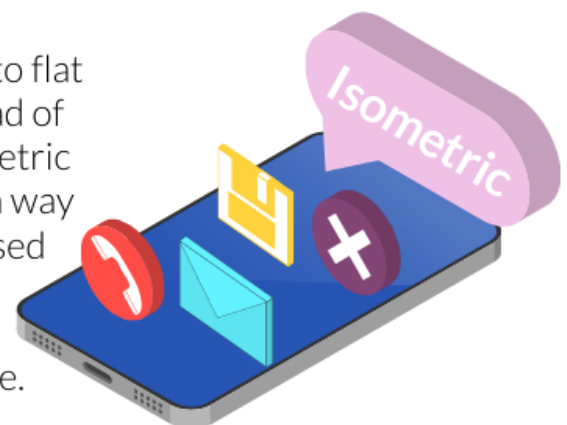
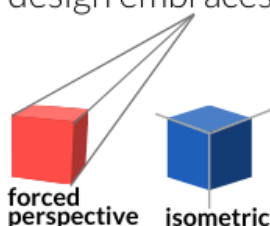
# "Almost Flat" Design

One drawback of flat design is that with only two dimensions, it can be hard to know which design elements are meant to be clicked or tapped. By the end of the 2010s, gradients, texture, and shadow were popular once again to add dimension and depth to designs. Since the minimalist tendencies of flat design are otherwise retained, this hybrid style is known as "almost flat" or "flat 2.0."



# Isometric Design

Another recent trend that adds depth to flat design is called isometric design. Instead of the two dimensions of flat design, isometric design embraces three dimensions as a way to add depth. It is based on a cube with 120 degree angles and no forced perspective.



### 1.1.5. Color



#### 1.1.5.1. Use of Color

By [Jill Zwylghuizen](#)

Good design intrigues the learner and draws them in. It evokes in them a desire to learn more. One way to engage learners is through the use of color. Which of the following images does a better job of catching your eye?

**THREE ROLES**  
  

1. Designer
2. Technology Specialist
3. Educator

  
**Teamwork!**

**THREE ROLES**  
  

1. Designer
2. Technology Specialist
3. Educator

  
**Teamwork!**

Bringing color into your course design is one way to engage learners and increase their motivation. But how do you decide what colors to use and when to use them?

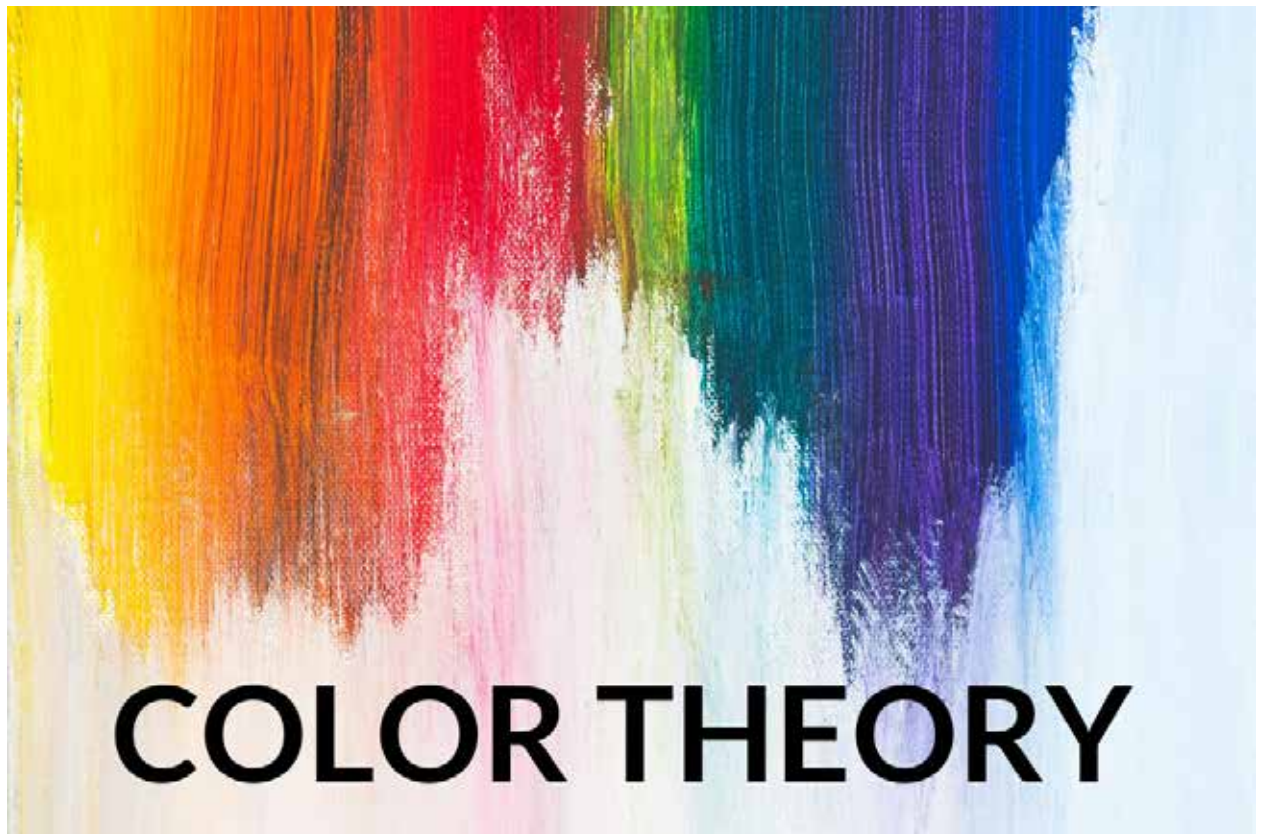


Unfortunately, there is no one-size-fits-all answer to those questions. But there are some [general principles](#) you can familiarize yourself with as a designer that will help you think through what the best use of color would be in your context.

Take a moment to think about the cultural context of the learners who will take your course. What color represents mourning? What color do brides wear? What color is lucky? What color symbolizes wealth? What color signifies danger?

The answers to those questions vary from culture to culture. A [Western perspective](#), a [South Asian perspective](#), and an [East African perspective](#) on color differ from one another. But there are also some commonalities to the way people around the world perceive color around the world, according to an [international survey](#).

The key point is that being aware of what colors represent to your learners can help guide your implementation of color in your course design.



## 1.1.5.2. Color Theory

By [Jill Zwylghuizen](#)

### Color Wheel



Have you ever experimented with mixing paint colors together to form a new color? Red and yellow combine to make orange, and so on. A simple way to picture these color combinations is called the color wheel. The primary colors (red, yellow, blue) are mixed together to make secondary colors (orange, green, purple), which are mixed together to create tertiary colors (red-orange, yellow-green, magenta, etc.).



# Color Combinations



The color wheel is a useful way to think about color combinations. There are six main types of color palettes that can be generated from the color wheel.

## Monochromatic



The simplest option is a monochromatic palette, which is comprised of a single color. Monochromatic palettes can be expanded to include various tints, shades, or tones of that single color (more on that below).

**Monochromatic  
palettes utilize  
contrasting tones.**



# Analogous



Analogous color palettes are comprised of three adjacent colors from the color wheel. Analogous color combinations are harmonious. Because there is not much contrast between the colors, the design can seem more muted even when the colors are vibrant.

**Analogous palettes create  
a harmonious composition.**

# Triadic



Triadic palettes are formed by selecting three colors that are equally distributed around the color wheel, at the vertices of an equilateral triangle. The primary and secondary colors form triads. There are also two tertiary triadic patterns.



# Complementary

Complementary color palettes are formed by taking a color and its exact opposite on the color wheel. Complementary colors have the strongest contrast with one another, which can create an effective accent, though it can also make for a visually harsh composition (see below).



Text that is on a complementary background can be hard to read.

Some pairs of complementary colors are truly dreadful for text.

like this

Some pairs of complements work better than others for text.

Try not to mix red and green for the sake of colorblind users.

red green

Complementary colors can be used to create an eye-catching accent.





# Split Complementary



Split complementary color palettes are formed by taking a color and the two colors to either side of its exact opposite on the color wheel. Split complementary palettes are easier to work with than complementary palettes. One color naturally stands out as the accent color in the design.

**Split complementary palettes are easy to use effectively.**



# Double Complementary

Double complementary palettes are formed by taking two colors and their exact opposites on the color wheel. The four colors are the vertices of a rectangle that is superimposed on the circle. Double complementary palettes give more color choices with a balance of warm and cool tones.





# Double Complementary (square)



Double complementary palettes can also be formed by superimposing a square instead of a rectangle on the circle. The resulting four colors are comprised of two pairs of complementary colors.



**Double complementary color palettes create a bold and dramatic effect.**

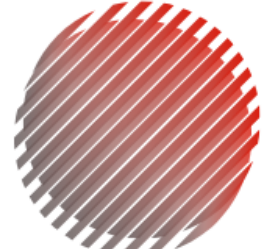
# Color Properties



**Hue**



**Brightness**



**Saturation**

In addition to mixing primary and secondary colors with each other, white and black can also be mixed in to create new color tones.

## Hue, Saturation, and Brightness



Hue is the value of the color in the color wheel: blue, red, purple, yellow-green, magenta, etc.



100% 0%

Brightness refers to how light or dark a color is. A pure hue is about 50% on the brightness scale.



100% 0%

Saturation refers to the purity of a color. A color that is fully desaturated turns to grey.

# Tints, Shades, and Tones



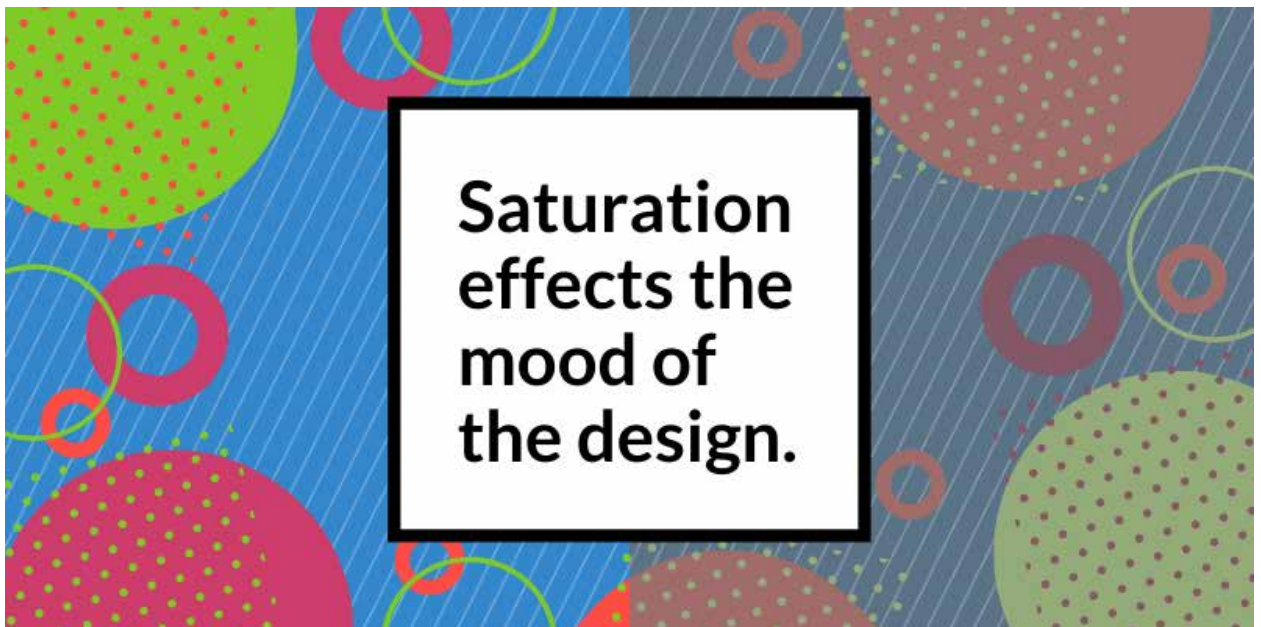
Tints are created by adding white to a color. Tints are lighter than the hue color.



Shades are created by adding black to a color. Shades are darker than the hue color.



Tones are created by adding black and white (grey) to a color. Tones are subtler than the hue.



## Additional Resources (color palette)

One way to create a color palette is to use the color wheel. Adobe has an [Adobe](#) and [Canva](#) both have interactive color wheels that allow you to select a color and generate a color palette based on that color.

If you do not want to create your own palette, you can also browse a site like [Design Seeds](#) and choose a palette that works for your design.

If you would like to see how your design would look to someone who is colorblind, you can use a [colorblind simulator](#) to make sure there is enough contrast in your design.

## For further reading:

Color Reference Poster by Paper Leaf.

<https://creativepro.com/learning-to-use-color-your-web-site/>

<https://www.tigercolor.com/color-lab/color-theory/color-theory-intro.htm>

<https://www.tigercolor.com/color-lab/color-theory/color-harmonies.htm>

<https://venngage.com/blog/color-blind-friendly-palette/>

Pixar Animation Studios and Khan Academy collaborated to create a series of free online courses about topics related to movie animation. One of their courses is called “Color science.” [Click here to check it out.](#)



#ffffff rgb(225,225,225) cmyk(0,0,0,0) #db1e0f rgb(219,30,15) cmyk(0,86,93,14) #fe4c46 rgb(254,76,70) cmyk(0,70,72,0) #fc8641 rgb(252,134,65) cmyk(0,47,74,1) #ffb330 rgb(255,179,48) cmyk(0,30,81,0) #fed23c rgb(254,210,60) cmyk(0,17,76,0) #7fcb37 rgb(127,203,55) cmyk(37,0,73,20) #27a854 rgb(39,168,84) cmyk(77,0,50,34) #3387cc rgb(51,135,204) cmyk(75,34,0,20) #1e5fba rgb(30,95,186) cmyk(84,49,0,27) #704e99 rgb(112,78,153) cmyk(27,49,0,40) #824576 rgb(130,69,118) cmyk(0,47,9,49) #cd3c6c rgb(205,60,108) cmyk(0,71,47,20) #a6a6a6 rgb(166,166,166) cmyk(0,0,0,35) #626262 rgb(98,98,98) cmyk(0,0,0,62)

# COLOR CODES

## 1.1.5.3. Color Codes

By [Jill Zwyghuizen](#)

When you find a great color you want to be able to replicate it. Two common ways that designers talk about color are RGB values and Hex values.

RGB values look like this: R: 186 G: 47 B: 39. The red, green, and blue values can be any number from 0 to 225.

Hex values look like this: #BA2F27. Each of the 6 digits in the number can be a number from 0 to 9 or a letter from A to F.

Some programs will ask for the RGB value, others will ask for the Hex value. But as long as you know one of the two, it's easy to convert it to the other value.

If you know the RGB value and need the Hex value, use the converter at <http://www.rgbtohex.net>.

If you know the Hex value and need the RGB value, use the converter at <http://www.rgbtohex.net/hextorgb/>.

If you need other color values, <https://www.colorbook.io> allows you to convert hex into RGB, CMYK, and HSL values. It also shows you tints (lighter) and shades (darker) of the color.

## Color Palettes

If you are trying to find a color palette for your course, check out [Design Seeds](#). This blog is constantly updated with new color palettes. Each post shows you the palette and also gives you the hex codes for each color in the palette.

The recent posts are fun to browse when you need inspiration. But the [search by color option](#) is great for the times when you have a specific color in mind and want to find complementary colors to go along with it.

## Color Palettes in PowerPoint

Once you have chosen a [color palette](#) for your course, you might want to make use of it in PowerPoint to create some graphics or make a presentation for your students.

[This website shows you how to customize the color scheme in PowerPoint.](#)

## 1.1.6. Value



### 1.1.6.1. Design Trends: Gradients

By [Jill Zwylghuizen](#)

## Color Value

The hue of a color is the technical term for its value in the color wheel. Red, yellow and purple are examples of hues. Hues can be adjusted by adding white, black, or grey to the color.



Adding white  
creates a tint.



Adding black  
creates a shade.



Adding grey  
creates a tone.

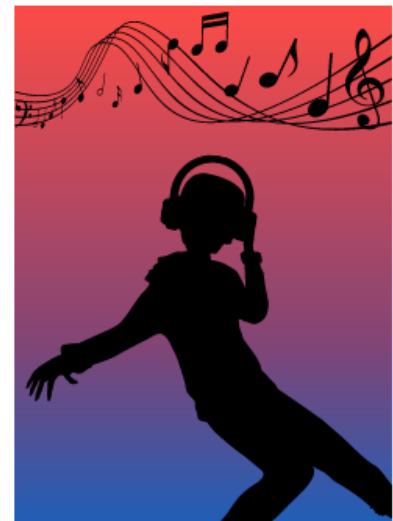
# Gradients

Value refers to how light or dark the resulting tint, shade, or tone is. A gradient is a spectrum of color values. Gradients can be created by adding white, black, or grey to a hue as in the above examples, or by blending two or more hues together.



## Design Trends

As the minimalism of flat design has given way to design trends that embrace more texture and shadow, gradients have also become quite popular. They are an easy way to add color and interest to the background of a design. Gradient backgrounds make dark figures in the foreground stand out (similar to the look of photographs taken at sunset).







**Gradients  
make  
designs  
look  
trendy.**



**When  
should  
you use  
trends?**

Gradients are "in" right now, but that does not necessarily mean you should use them in all of your designs. As a course designer, you need to take into consideration questions like how long it will be before the course will be revised? Design trends come and go. Gradients feel fresh and exciting right now, but in a few years they may feel dated as the design world moves on. So you may not want to overuse them if course updates don't happen very frequently.

### 1.1.7. Space



#### 1.1.7.1. Use of Space

By [Jill Zwylghuizen](#)

##### **White space**

is the blank area around other design elements. Some designs have very little white space.



Others have lots of white space.

# Hierarchy

White space plays an important role, even in designs with very little of it. It shows the division between the sections and columns (macro space) as well as between letters, words, and lines of text (micro space). White space is one important tool designers use to show the visual hierarchy of elements in the design.



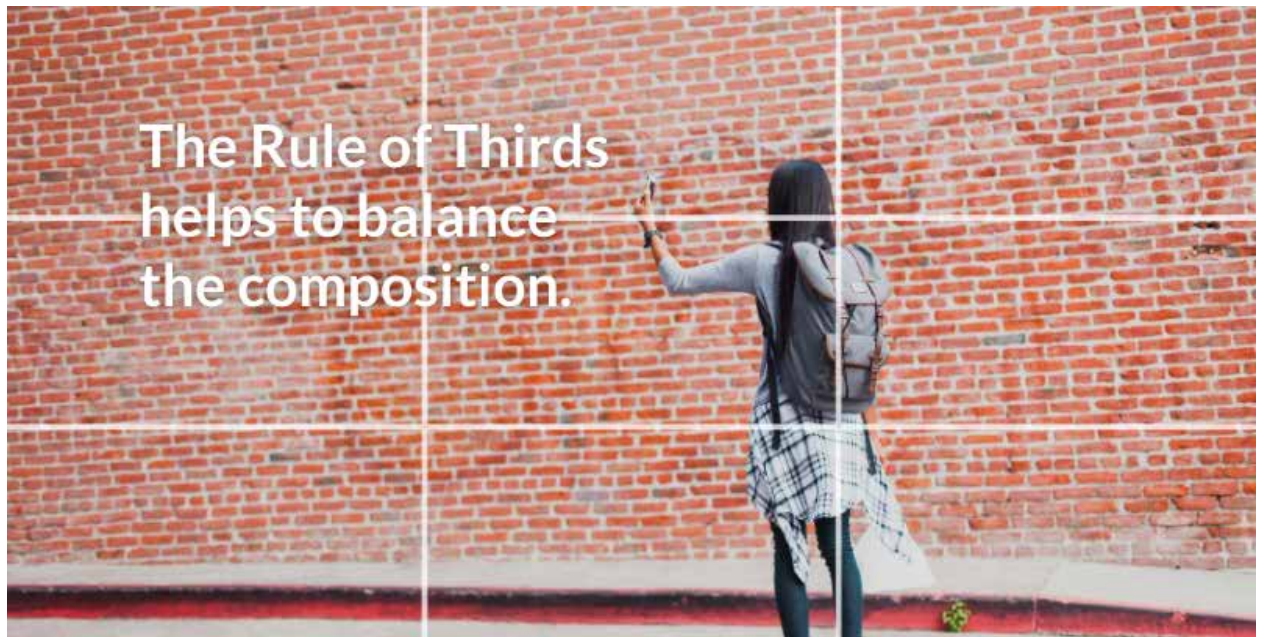
**White space  
draws attention.**



## The Rule of Thirds

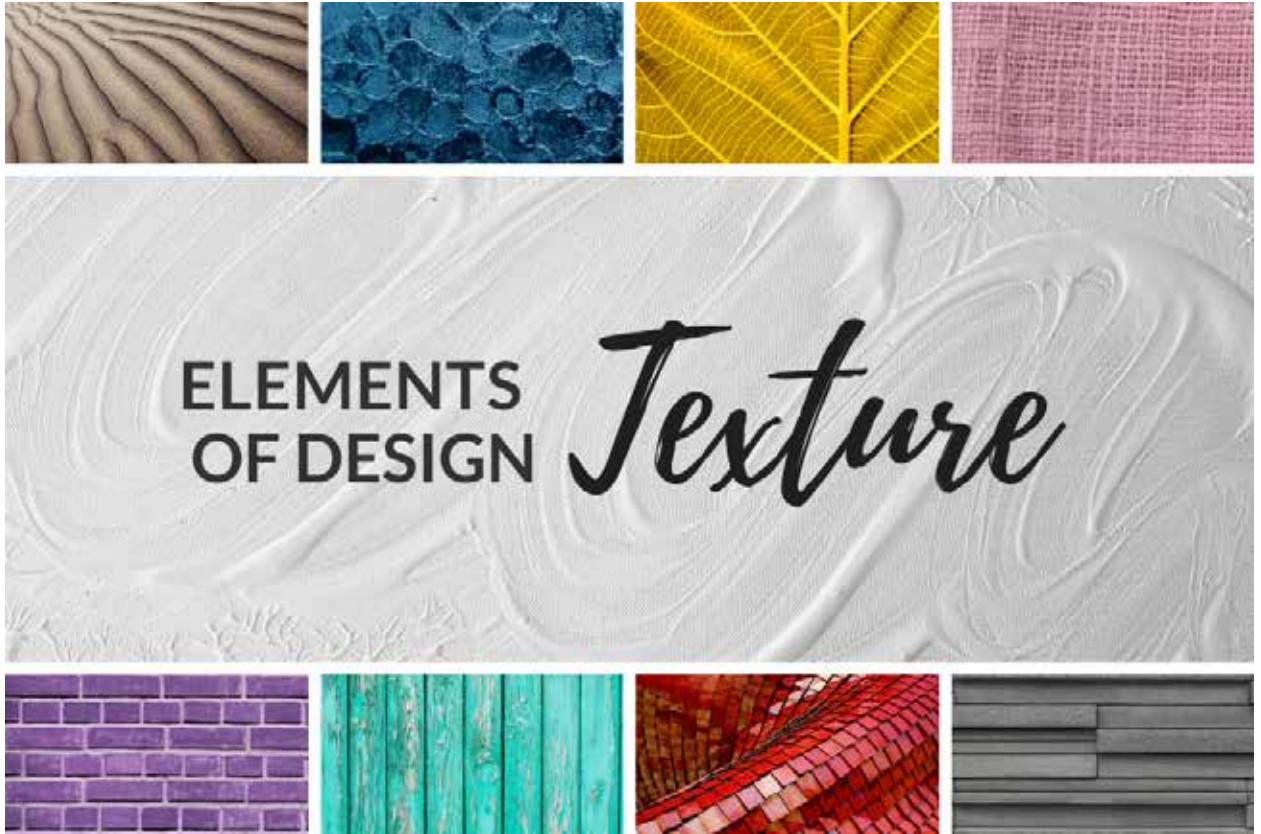
is a useful way to think about arranging the design elements and the white space. Divide the composition into thirds, both vertically and horizontally. Place the most important elements at the intersection of the lines, or along the lines.







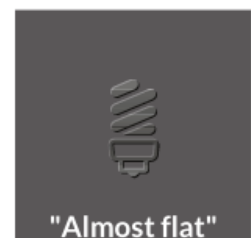
### 1.1.8. Texture



#### 1.1.8.1. Use of Texture

### "Almost Flat" Design

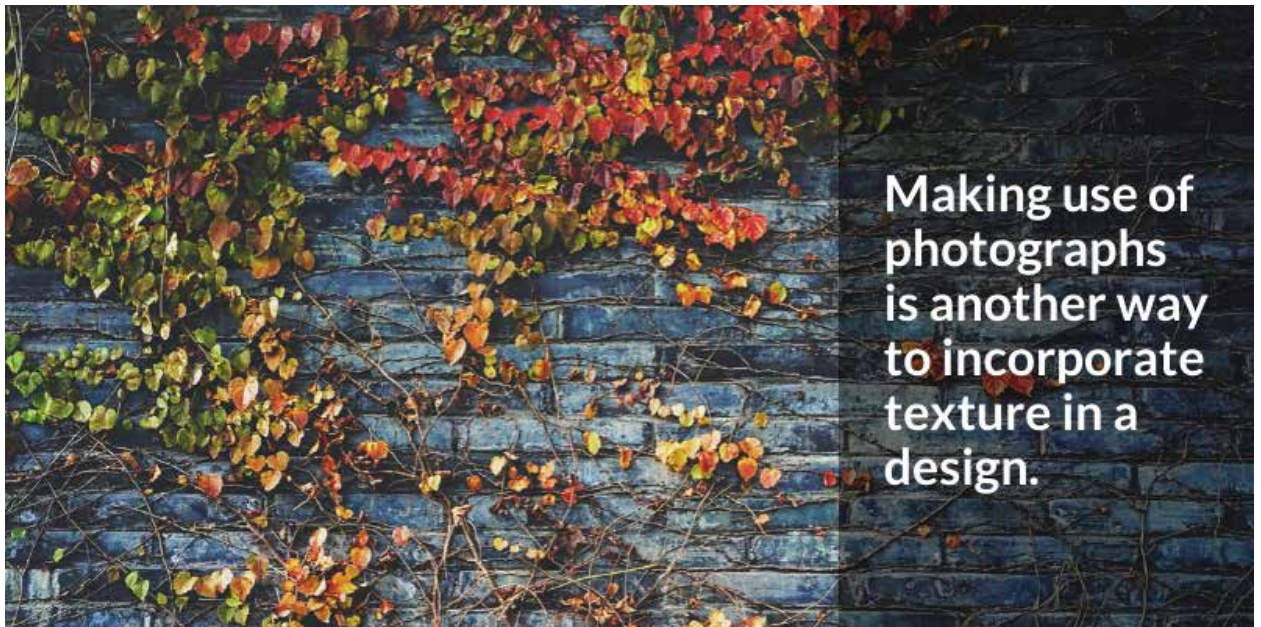
Flat design principles have been very influential for the past decade in the world of web design. Flat design is a minimalistic style that eschews the use of texture (along with shadows and gradients) in favor of simpler design elements. In the past few years, however, texture has been making a comeback. "Almost flat" design retains the minimalism of flat design but incorporates texture to add depth.



Objects with texture have more depth than flat objects. This is helpful to make key elements of the design stand out. It is also helpful to show which elements are interactive—which shapes are buttons that can be pressed, for example.



Texture can be added to the objects themselves to make them stand out against a flat background. Texture can also be added to the background to give depth to the overall design.



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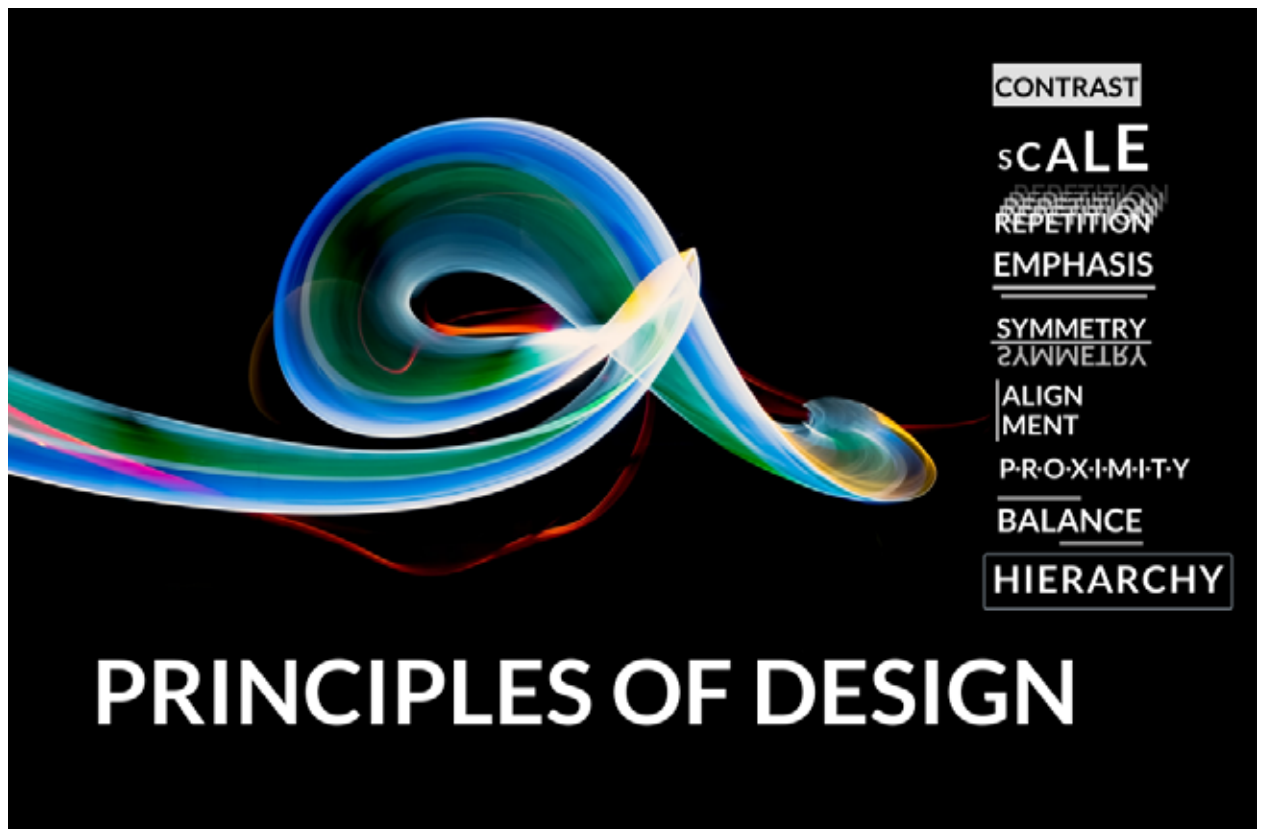
### Additional resources (texture):

If you want to add texture to a design, check out [The Pattern Library](#). This is a curated collection of patterns you can download and use.



## 1.2. Principles of Design

### 1.2.1. Overview

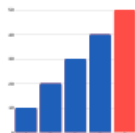


#### 1.2.1.1. Principles of Design - Overview

By [Jill Zwyghuizen](#)

## Contrast

Contrast is the juxtaposition of like and unlike features. These could be light and dark color values, different shapes, different fonts, etc. Contrast draws the eye and accentuates the focal point of a design.



*design*  
PRINCIPLES



# Scale

Scale describes the size of the various design components relative to each other. The larger the scale of the item, the more it draws the eye.

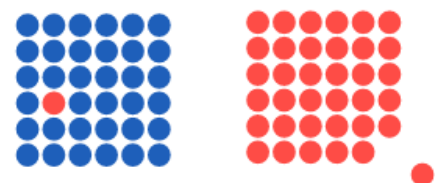


# Repetition

Repetition can be used to form patterns, to create consistency in a design, or to create movement or rhythm in the composition.



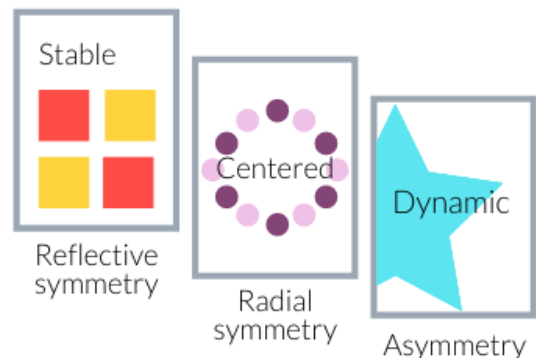
Sometimes the focal point of a design is where the pattern is interrupted.



Repetition can also  
**emphasize**  
design components.

## Symmetry

In symmetrical designs multiple items have equal visual weight. Symmetry can be reflected vertically or horizontally over an axis or distributed radially around a central point. In asymmetrical layouts visual weight is unequally distributed.

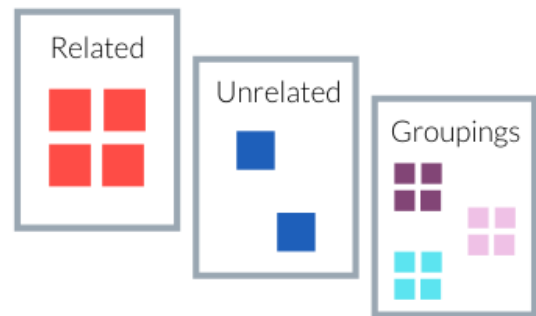


Symmetrical designs have an inherent sense of **balance.**

**Balance**  
is also crucial for  
asymmetrical  
designs.

# Proximity

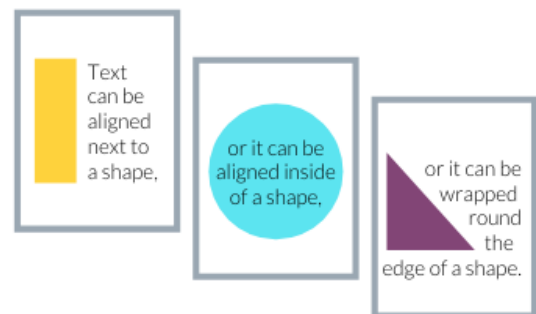
Placing components in close proximity shows there is a relationship between them. Spacing them out creates distinctions. The relative amount of distance shows groupings of related items.



# Alignment



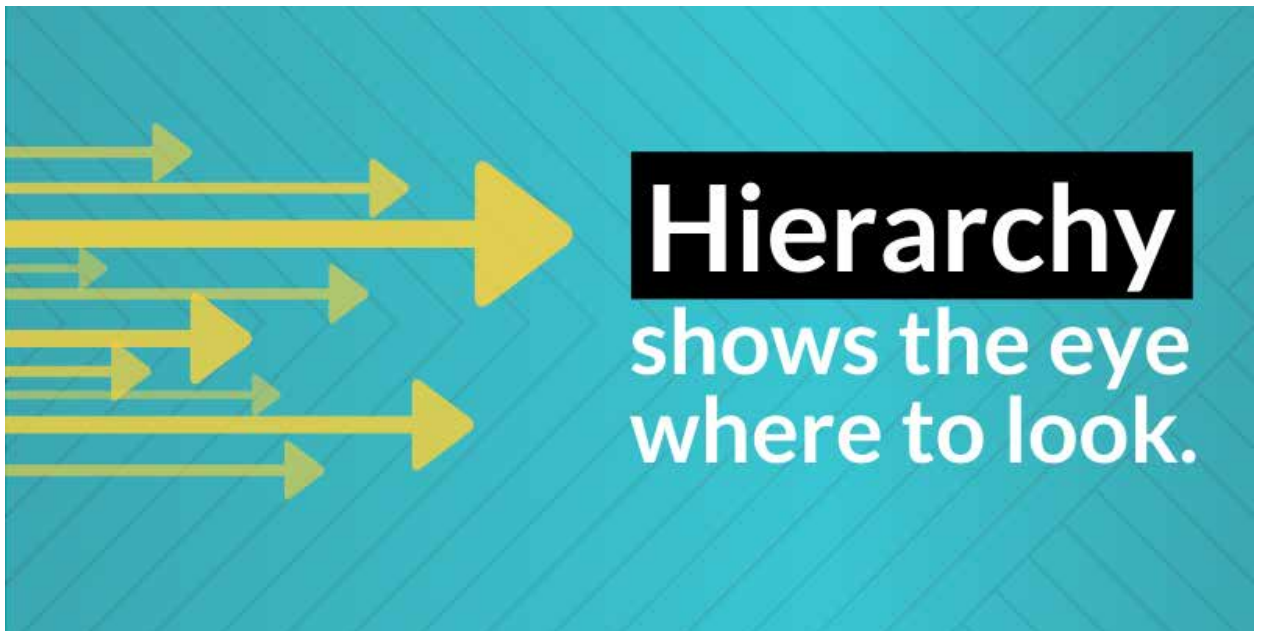
Aligning components creates a clean and orderly look to the composition, which helps guide the eye. Alignment can also be used to show the relationship between items.



Proximity and alignment can help to create **balance.**

# Hierarchy

Hierarchy refers to the organizing pattern of a design, whether with headers, sub-headers, and body text, or with other visual elements. What item draws the eye first? Which items have a lot of visual weight? Which have the least? Hierarchy makes use of many of the principles of design, especially emphasis.



For further reading:

<https://visual.ly/community/Infographics/education/6-principles-design>

<https://www.shillingtoneducation.com/blog/graphic-design-basic-principles/>

<https://henkinschultz.com/2019/08/design-principles-101-the-basics-of-graphic-design/>

<https://www.nngroup.com/articles/principles-visual-design/>

<https://paper-leaf.com/blog/2012/10/principles-of-design-quick-reference-poster/>

<http://splitcomplementary.blogspot.com/2012/02/elements-principles-of-design-icons.html>



## 1.2.2. Contrast



### 1.2.2.1. Use of Contrast

By [Jill Zwyghuizen](#)

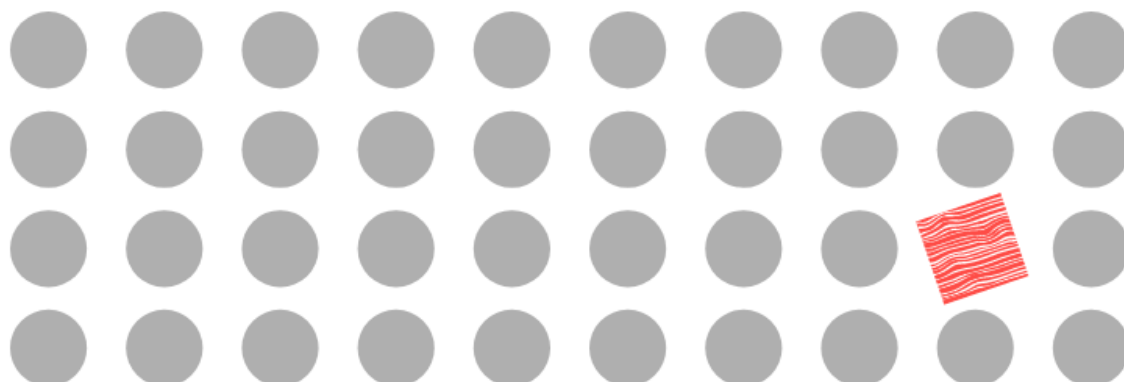
## What is contrast?

Contrast is the juxtaposition of design elements that are different. The greater the difference, the higher the contrast.

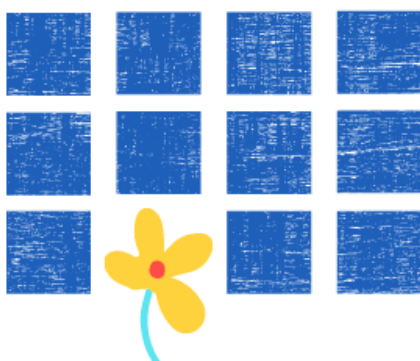
Low contrast is subtle.

High contrast draws attention.

Color is one way to show contrast, but it is not the only way. Elements like shape, size, texture, and value can also be used for contrast.

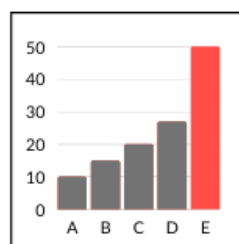
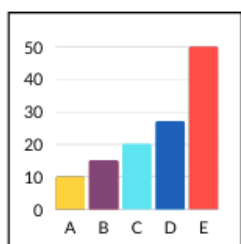
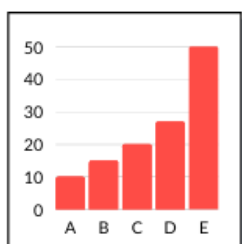


Not every element in a design needs to contrast with every other element. Some level of similarity is needed in order to make the focal point pop. If every element is different, then nothing stands out.



## Why use contrast?

Contrast draws the eye, which means it is a useful tool for designers to use to direct the viewer to the most important feature of a design. The key is not to overuse contrast. Which graph communicates best?



# Contrasting Fonts

Designers often pair two fonts to show the difference between titles and text or between the main idea and the supporting details. A script font could be paired with a non-script font, or a serif font with a sans serif font. Utilizing different weights of the same font also works well.



## How to Pair Fonts

Merriweather ↗ Lato ↘

It is easy to find lists of recommended font pairings for web design. The key to matching fonts is to find a pair with enough differences to be distinct, but not so different that they clash. For beginners, using a serif and a sans serif from the same font family is an easy way to find fonts that work well together.

Noto supports many languages ↗

Merriweather  
Merriweather Sans

Josefin Slab  
Josefin Sans

Roboto Slab  
Roboto

Noto Serif  
Noto Sans

## Using Font Weights

Lato Bold ↗ Lato ↘

Some fonts have multiple weights that can be combined to show the relative importance of various elements in the design. Using different font sizes can also support the contrast.

**Heading**  
Subheading  
Paragraph text

**Main Point**  
Supporting  
Details

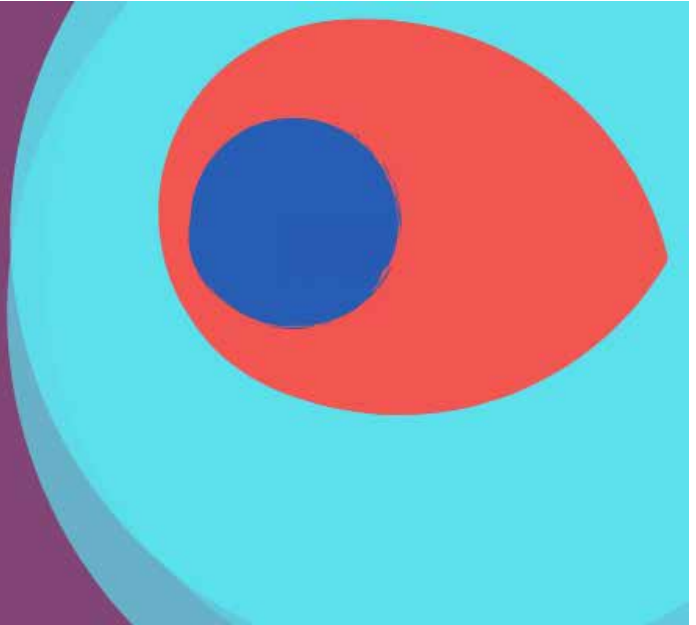
Title  
By Author  
Body text

Montserrat ↗ pairs well with Lato ↘

Lato  
**Black**  
**Bold**  
Regular  
Light  
Hairline

Montserrat  
**Black**  
**Extra-Bold**  
**Bold**  
**Semi-Bold**  
Medium  
Regular  
Extra-Light  
Thin

Graphic designers juxtapose differing elements to create an eye-catching focal point, directing the viewer's attention to the most important feature; this is a design tactic that emphasizes what matters most.



# Emphasis

The principle of contrast is a very effective way to emphasize the most important part of the design. Whether it is the title, the big idea, the key statistic, or the relevant quotation, using contrast will draw attention to it. Supporting details are placed where the eye will look next, which is usually down and to the right—unless the design dictates an alternate pathway.

**TITLE**  
Regular text explaining the key statistic

time place  
**BIG IDEA**  
supporting details

“Relevant quotation”  
Regular text on the same subject as the quote



### 1.2.3. Scale

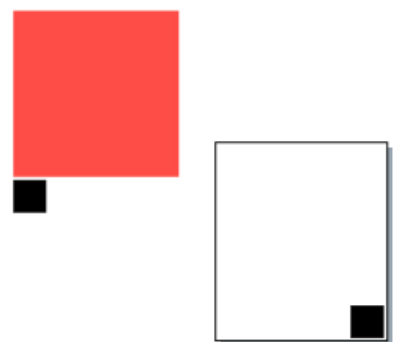


#### 1.2.3.1. Use of Scale

By [Jill Zwylghuizen](#)

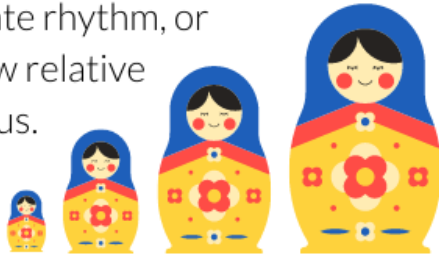
## What is scale?

Scale refers to the size of an object relative to some other element of the design, while size is an absolute measurement. More than one element is needed to show scale, though it is possible to show scale through the use of white space. The black square is small relative to both the red square and the white space.



# Different sizes

Elements of different sizes can demonstrate perspective, create rhythm, or show relative status.



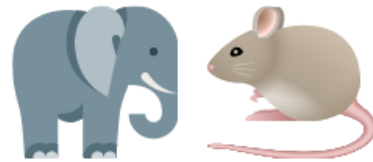
Smaller elements tend to fade into the distance, creating a sense of perspective.

# Similar sizes

Elements that are scaled to similar size suggests that there is some commonality among them, which may be obvious or more subtle.



If similar scale goes against the natural order of things, it can create a sense of whimsy, or evoke feelings of disorientation.

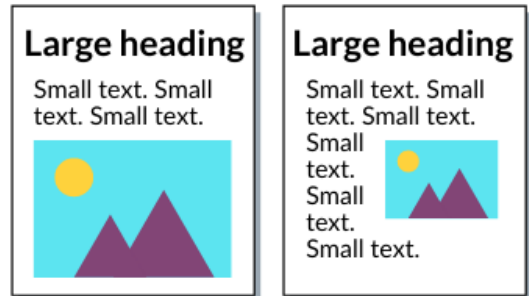


A SMALL  
SCALE  
CAN BE  
QUITE  
EFFECTIVE.



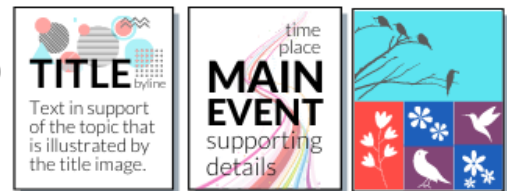
# Emphasis

The use of scale is a simple way to emphasize the most important part of the design. An illustration that takes up half the page is attention-grabbing. That layout suggests that the image is the most important element, whereas the heading stands out more if the scale of the image is reduced a bit.

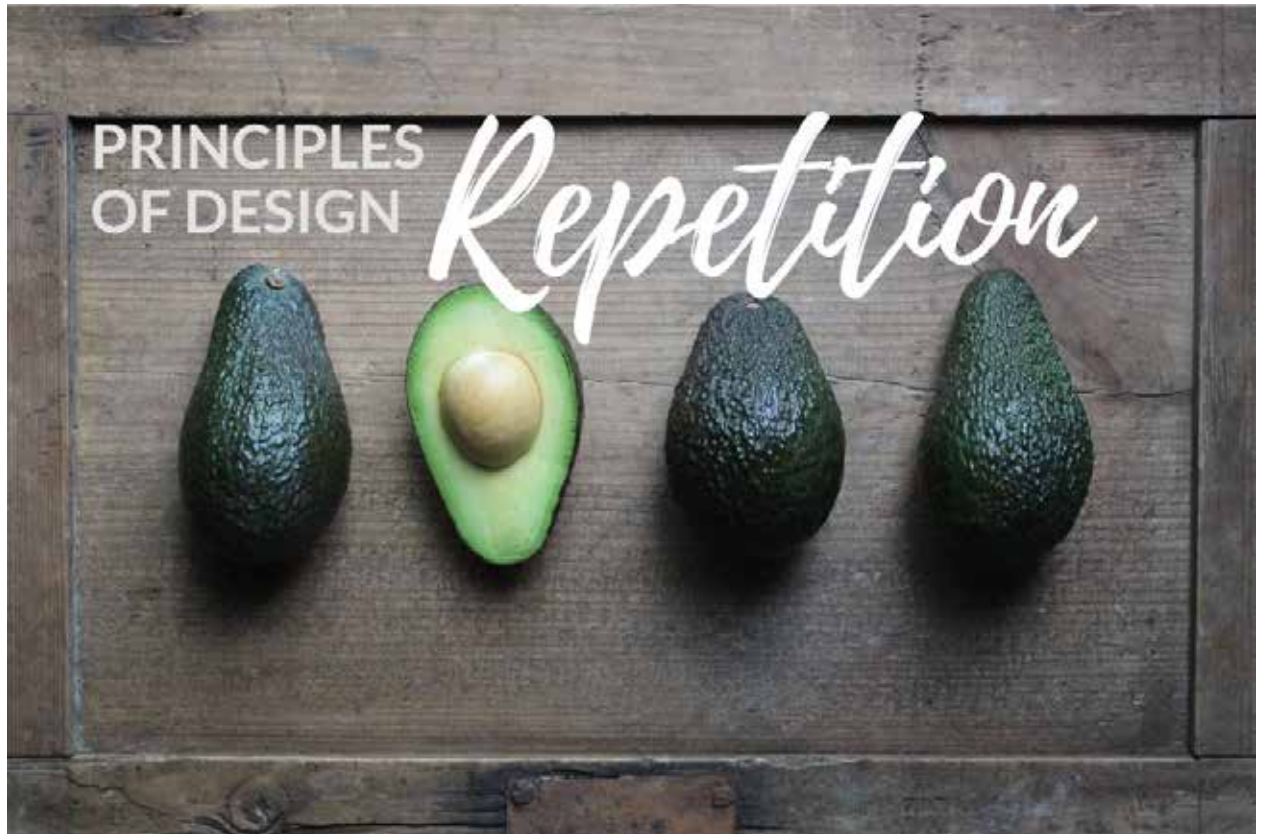


# Hierarchy

Scale is an effective way to create a visual hierarchy in a design. The largest design elements draws the eye first, then the next largest, and so on. Sometimes the title will be the largest element. Other times an image may be the focal point. Scale is relative so it shows the interrelationship of large, medium, and smaller elements as well as their level of significance.



## 1.2.4. Repetition



### 1.2.4.1. Use of Repetition

By [Jill Zwylghuizen](#)

## Consistency

Repetition is essential for creating consistency in a design. The more extensive the design (like an online course), the more important it is to incorporate elements that tie the various parts together into a whole. The repetition of *designing* in the titles of the three main categories links them with the website title. The three colors bordering the images are repeated throughout each respective category and they are also used in the DOL Moodle course.





# Pattern

Repetition of lines, shapes, and colors can form patterns.

Sometimes negative (white) space is part of the pattern.

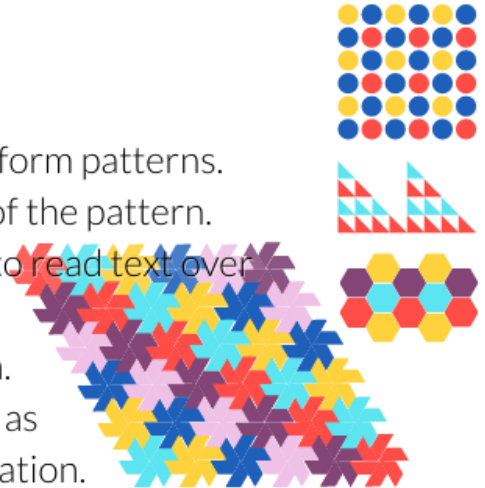
Patterns add visual interest, but it is hard to read text over

top of them. It is not always a good idea

to use them as background for that reason.

But organizational patterns can be helpful as

familiarity helps readers easily find information.



# Rhythm

Repetition of lines, shapes, and colors can also be used to create rhythm in the design. Patterns typically have some regularity to their repetition, even if it is complex. But rhythm can have more variation, suggesting movement. That sense of motion helps direct the eye through a design.

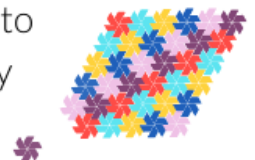




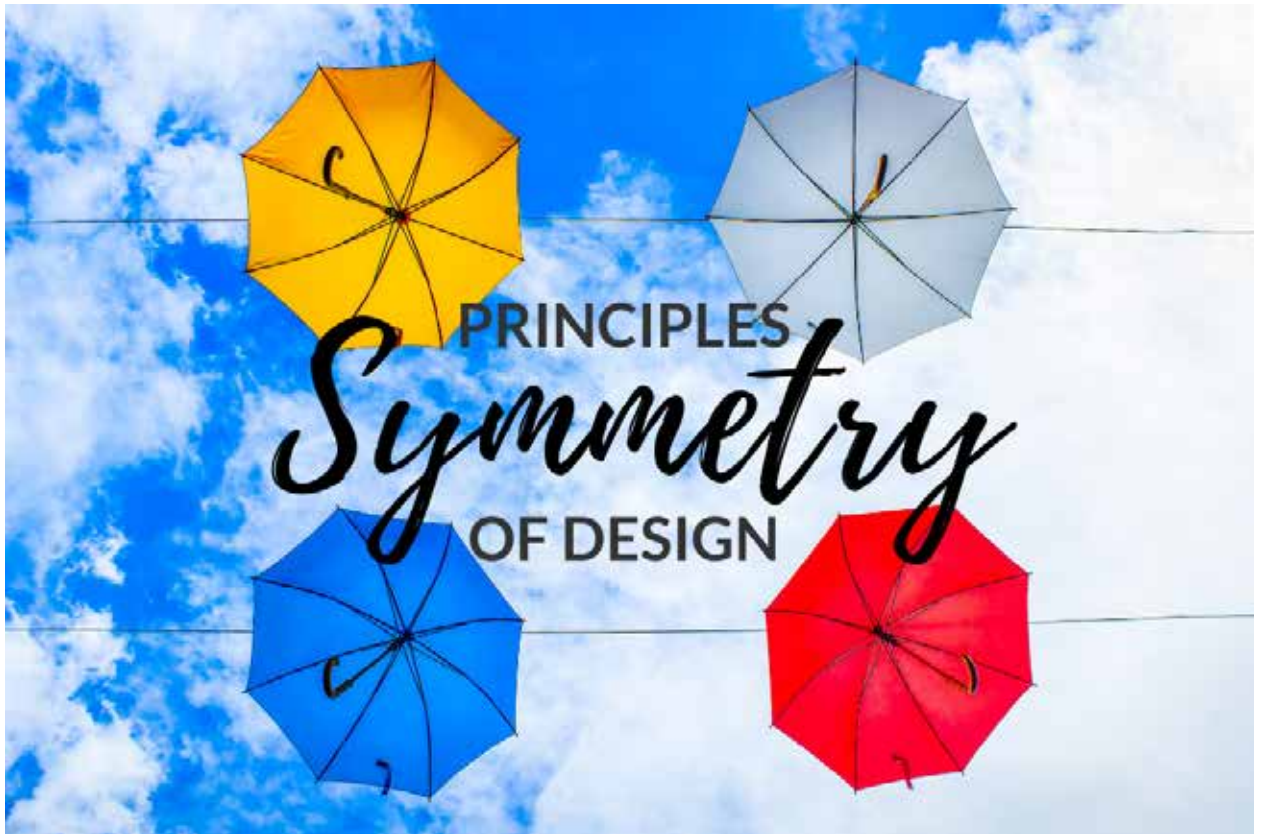
# Emphasis

The principle of repetition can be used to emphasize the most important parts of the design. Repeated words and phrases help readers remember key information. However, repetition without any contrast can be boring. Repetition and contrast working together, on the other hand, is an effective way to emphasize the focal point of a design. The eye is instantly drawn to the place where the pattern breaks.

repetition  
repetition  
repetition  
repetition  
**emphasis**



## 1.2.5. Symmetry

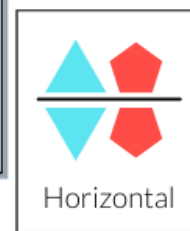
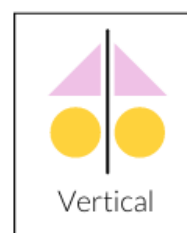


### 1.2.5.1. Use of Symmetry

By [Jill Zwylghuizen](#)

## Reflective Symmetry

Sometimes symmetry is created by reflecting an image over an axis. Designs can be symmetrical along a vertical, horizontal, or diagonal line. One side of the line reflects the mirror image of the other side. Designs with reflective symmetry are balanced and suggest stability.





# Radial & Rotational Symmetry

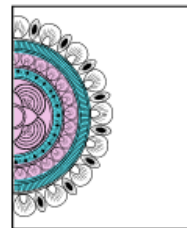


Symmetry can also be created by rotating an image around a central point. Objects with rotational symmetry remain the same as they turn. Objects with radial symmetry can be divided in half at any angle and the two halves are identical. Designs with this type of symmetry are centered. Rotational symmetry can also suggest motion.



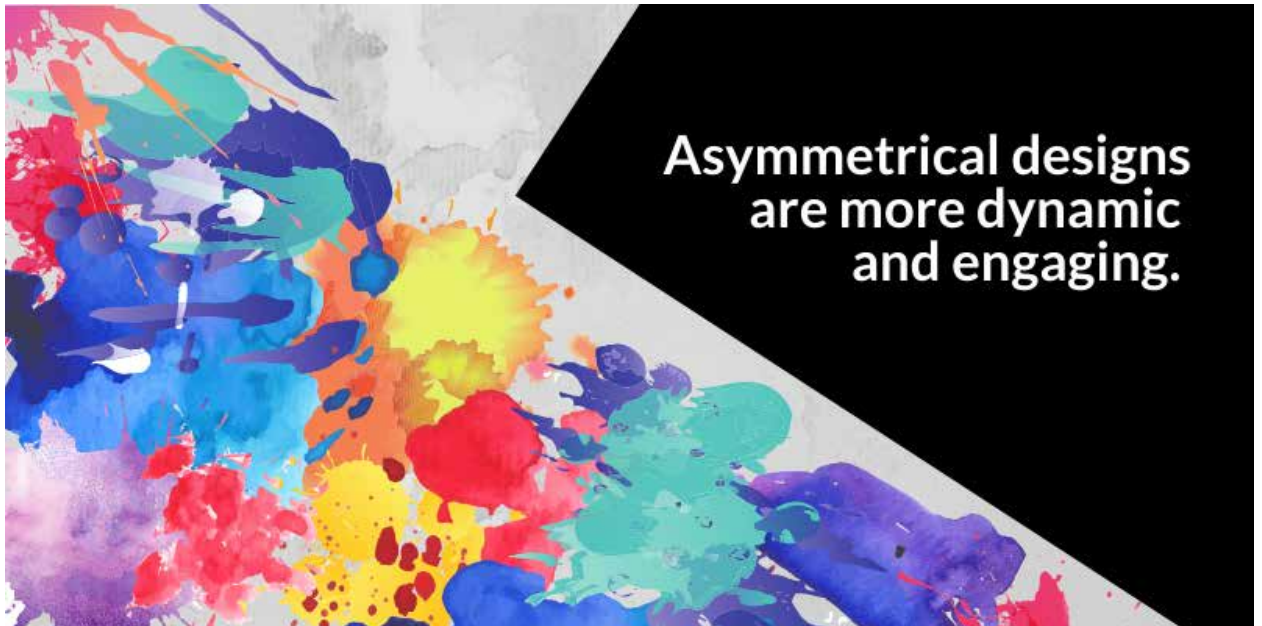
## Asymmetrical Designs

Asymmetrical designs can be created by using only part of a symmetrical shape or by using asymmetrical shapes. These designs are much more dynamic than symmetrical designs and they can give important cues about visual hierarchy.



**Symmetrical designs are stable and predictable, but they can also be somewhat boring.**





**Asymmetrical designs  
are more dynamic  
and engaging.**

# Balance

Symmetrical designs are inherently balanced. But balance is also a key concept for asymmetrical designs. Several smaller elements can be used to balance one larger element. Text can be balanced by colors or shapes. Other times white space can be used to achieve balance.



## 1.2.6. Alignment



### 1.2.6.1. Use of Alignment

By [Jill Zwylghuizen](#)

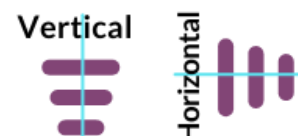
## Types of Alignment

Alignment refers to lining up elements along an axis. There are two basic ways to do this: align elements along an edge or along a center line. Edge alignment can be left or right, top or bottom. Center alignment can be vertical or horizontal.

### Edge Alignment



### Center Alignment



# Why use alignment?

When design elements are well aligned, the design looks neat, clean, and professional.

Right aligned text is harder to read, but used sparingly, it stands out.

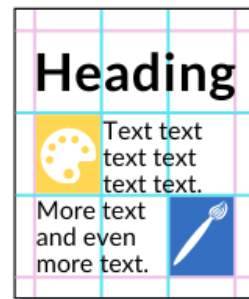


When alignment is just a little bit off it detracts from the design's overall effectiveness.



## Using grids

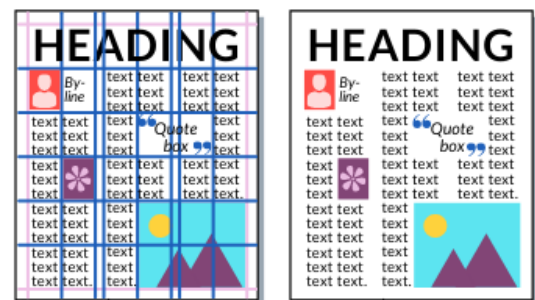
Grids are very helpful for organizing your design. Gridlines can be simple or complex. Either way, elements can be aligned to the gridlines. The gridlines are removed from the final product, but the aligned results are still visible and give the design a polished look.





# Balance

Aligning design elements to a grid contributes to an overall feeling of balance in the design. Alignment to different lines in different parts of the design adds to the visual interest and helps the overall composition maintain a sense of balance.





## 1.2.7. Proximity

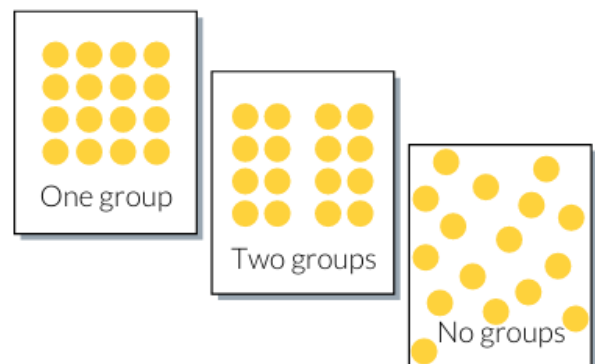


### 1.2.7.1. Use of Proximity

By [Jill Zwylghuizen](#)

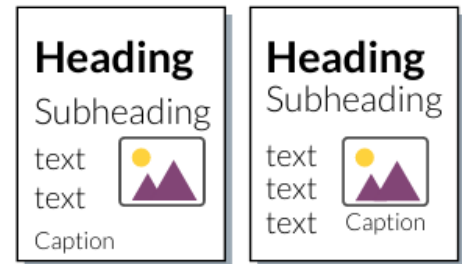
## Grouping

The design principle of proximity is used to group items together. Proximity has to do with the relative amount of space between elements in the design. It shows that elements belong to a group, or that they belong to separate groups, or to no groups at all.



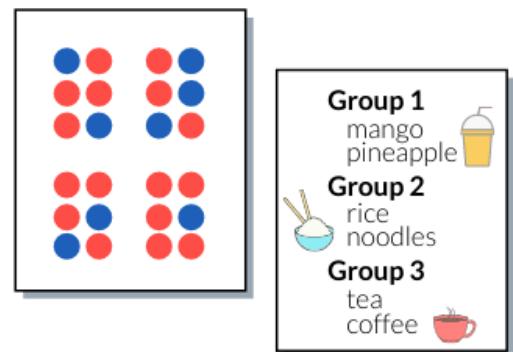
# Showing connections

The use of proximity shows that there is a connection between design elements. An image and a text box that are close to each other suggests that they are meant to be considered together. Which of the arrangements to the right does a better job of showing the relationship between the design elements?



# Showing separation

Sometimes showing separation is as important as showing connections. Proximity has an even higher priority than color when it comes to showing separation. Color might suggest two groups, but proximity suggests four. The amount of space between each group is an important visual cue, even when there are other cues like headings.





# Hierarchy

## Main Point



Caption

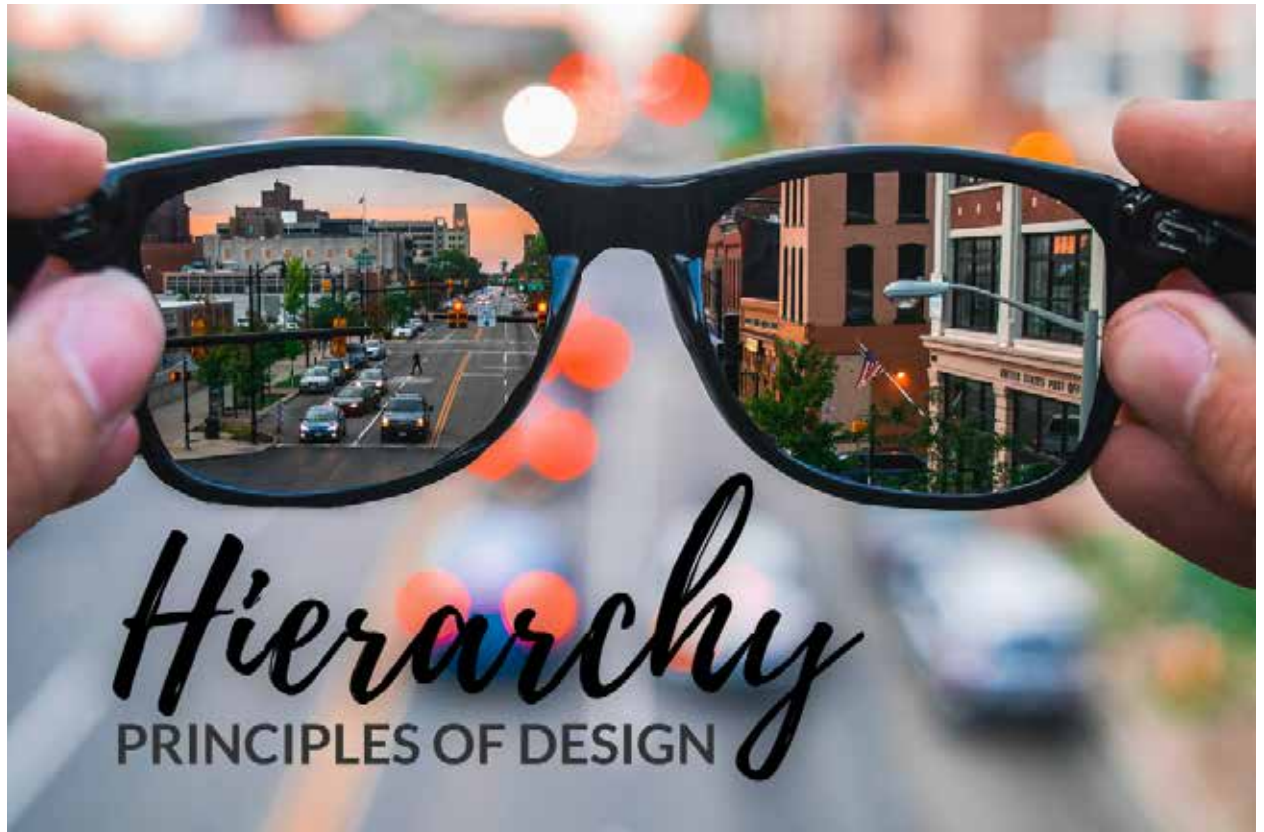
Sub Point 1

Sub Point 2

Sub Point 3

The design principle of proximity is an important component of showing the overall hierarchy of a design. Proximity demonstrates a connection between design elements of similar levels of importance while extra space helps to create distinctions between elements.

## 1.2.8. Hierarchy

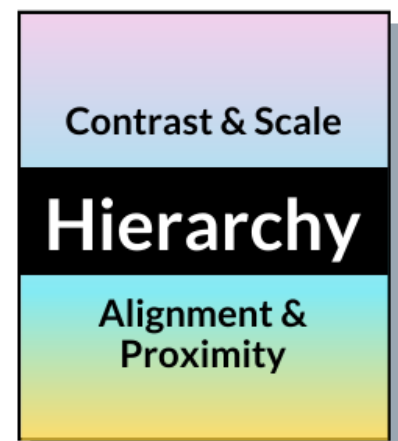


### 1.2.8.1. Use of Hierarchy

By [Jill Zwylghuizen](#)

## Creating hierarchy

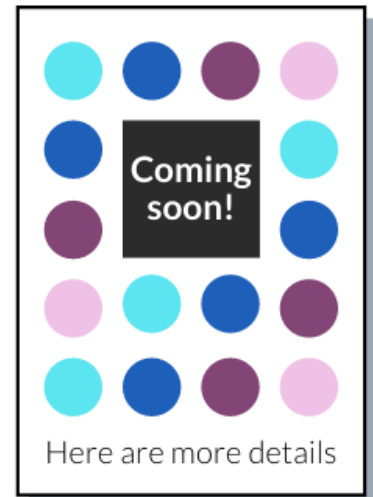
Hierarchy is all about directing the eye to look at the most important part of the design first, then at the second most important part, and so on. As a designer that means you have to first decide what is the most important part of the design and then you have to make use of design principles to draw attention to it.





# Contrast

The design principle of contrast is an easy way to highlight the focal point of the design. Areas of high contrast are eye-catching. If you have one particularly important piece of information to communicate, can you play with some type of contrast to highlight it?



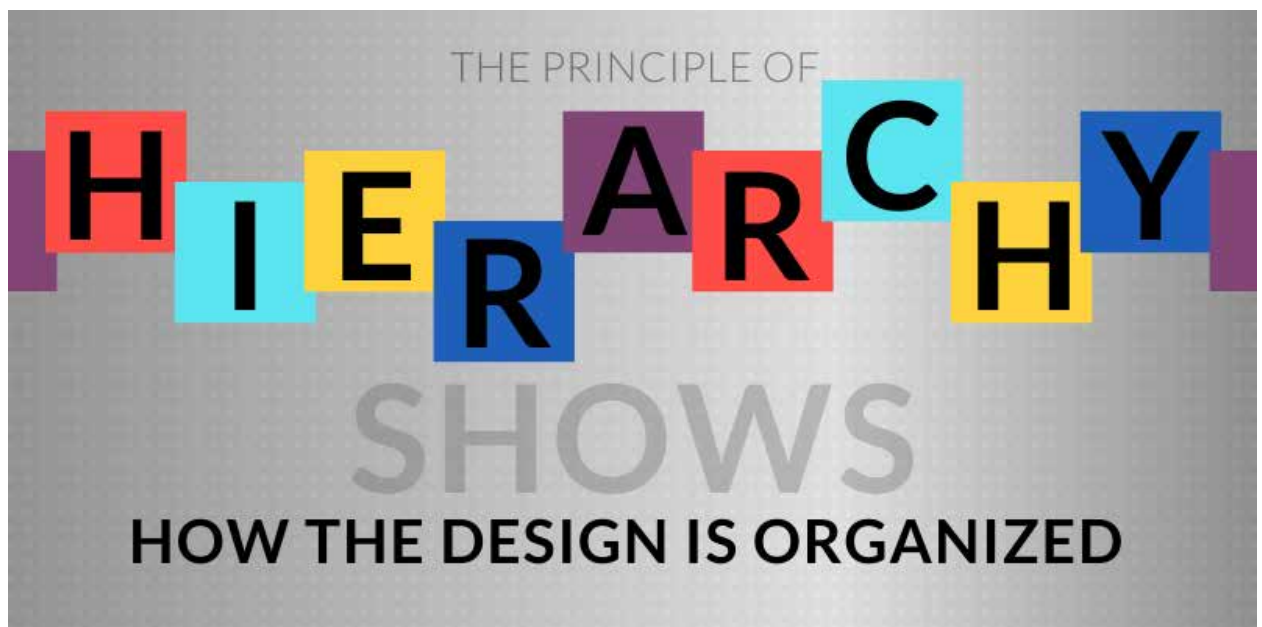
# Scale

Scale is another design principle that makes it easy to highlight the focal point of the design. Larger elements are presumed to have greater importance. Think about the layout of most newspaper articles and textbooks. The headings are always larger than the body text. Using scale to indicate hierarchy can be as simple as that.



# Alignment & Proximity

Hierarchy is about more than just drawing attention to the focal point. It is also about showing connections between elements of equal importance. Alignment and proximity are ways of showing that certain elements go together, which makes them useful tools for creating visual hierarchy in your design.



### 1.3. Putting It All Together







### 1.3.1. Use of Photographs

By [Jill Zwyghuizen](#)

When you look at the picture below, what is the first thing that you notice?



The carving on the pillar?

The background?

The purple flower?

The scarf?

Or were your eyes first drawn to the woman's face?



Research shows that when we are drawn to human faces more than any other element in a design that includes pictures of people. If the person is looking at us, we are drawn to their eyes. If the person is looking away, we follow their gaze.

This is a powerful piece of insight for designers because it can help us focus attention on the most important message we want to convey. Look at the following images. Which one draws your eye to the message?



In the second picture, the woman's gaze is directed toward the text. Since we are inclined to follow her gaze, our eyes are naturally drawn to the words. That is where we would want to put the most important message in our design, and put supporting details elsewhere.

Knowing that we are drawn to human faces and that our eyes are drawn to follow the sightline of people in photographs who are looking away can also help us decide where to put a given illustration if we want to include a photo to the side of a larger block of text. We want the person in the photo to be looking toward the words. If they are facing left, we will put the image on the right. If they are facing right, we will put the image on the left.



### 1.3.2. Composition: Extolling the Hero

By [Karee Mouw](#)

The first time I heard J.S. Bach's composition, "[Toccata and Fugue in D minor](#)", I was walking into a cathedral in Berlin, Germany. I had an instant physiological reaction. Goosebumps raced up my arms and back in response to the genius that is this composition. The grandeur of the minor chords brought tension and focus to the opening elements of the piece and then it was balanced by an equally grand but major chord.

The long, low, minor chords were subsequently contrasted by the higher, faster and airy notes in the interlude of the song. My attention was slightly diverted by this contrast because it was preparing my mind for the all important conclusion of the song—the D minor chords. As the ending of the song drew near, the goosebumps returned as my ears waited in anticipation for the D minor chord to resolve into a pleasing D major chord. The resolution never came because it was not the thesis of the composition.

The hero of the song is the D minor chord.

Okay. We can admit that the composition of the graphic we are about to discuss does not compare to the genius of "Toccata and Fugue in D minor"—not even slightly. But you get the point. Whether you are teaching, marketing, entertaining, or storytelling, there is always a focal point or a thesis statement.

When we designed the graphic for our introduction to the *Designing for Online Learning* course, we worked [backwards](#). We asked ourselves the following questions:

- What is the content of this section?
- What graphic depicts and reinforces what we are talking about?

- Does this graphic cause our readers to think a little more in the abstract?
- How do we tie the course book to the course website?

Once we settled on the answers to these questions, we were able to think about the [design principles](#) we have already talked about on our website.

The free picture we found on [Pixabay](#) displayed a perspective of teamwork and diversity of people and reinforced the introduction to Unit 1 in *Designing for Online Learning*. Aesthetically, this picture had a fresh feel to it.

The cogs and wheels give the impression that each person has a unique contribution and is an integral part of the design process. Though each person is diverse, they can work in synchronization and they can form a machine that moves forward toward their goal.



While we liked the content of the picture, there were some changes that needed to happen in order to reinforce the content on our course and website. The background color was not consistent with the palette for our course and Horizon's other professional development courses. Using Canva's background removing tool, we removed the blue background and replaced it with a color from the palette we used in the Engagement posts on our website.





Looking at this graphic further, we felt that even though it is well balanced, it needed a gradient of color to make it feel less one-dimensional. Color gradient is also a graphic [design trend](#) at the moment.

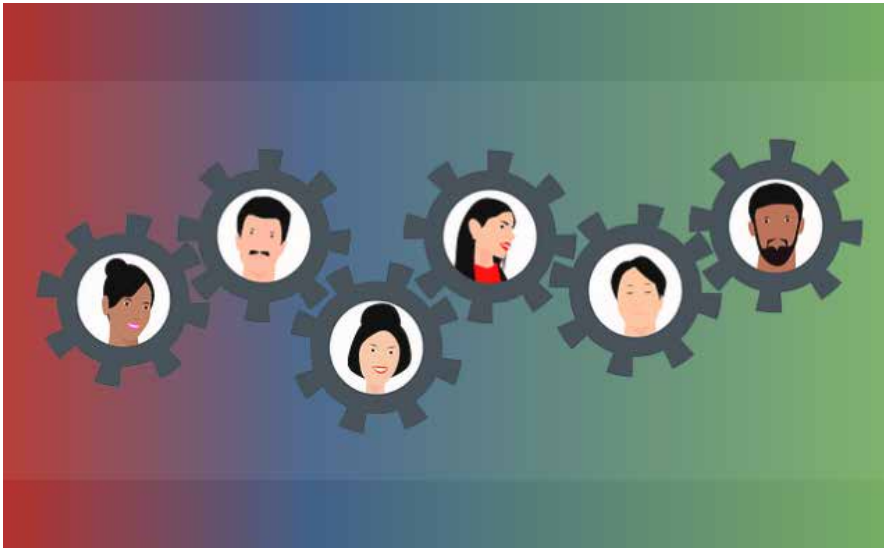


This looked better, but the color gradient still was not reinforcing our website and color palette. The color palette is important because it helps our readers remember the *Three Important Roles* of our introduction and content of our website. We coded each of the *Three Important Roles* with a corresponding color: red for *Engagement*, blue for *Technology*, and green for *Learning*.

To prime our readers to correlate the colors with each category of the *Three Important Roles*, we chose to use these three colors in a gradient for our background. This also reinforces the color palette of the course and the main website color palette.



Since there was not enough contrast between the cogs and wheels and the background, we added a transparent white box that helped emphasize the cogs and wheels. This also added a little extra texture and dimension.



You do not have to love the artistry of this graphic in order to see the hero. You can even hate it. Art is most definitely subjective.

One of the major goals of art is that you see the hero. The hero of this composition are the cogs and wheels and the partnership that is happening between diverse people. The color palette, the gradient, the balance and contrast all contribute to the goal of the composition—to extol the hero.



**Karee Mouw**

Karee Mouw is a freelance graphic designer who does work for Horizon Education Network. She teaches and holds leadership roles in several non-formal training ministries.



# Designing with Technology



Educational technology represents the application of knowledge for the practical purpose of learning. Michael Spector, a leading scholar who has written broadly on the subject of educational technology, suggests that we define it as “a technology that can help a person learn something” [1]. Educational technologies can represent a wide range of potential applications, including everyday items like pens, paper, books, or personal journals. We can broaden our understanding of educational technologies beyond computers, tablets, and smartphones to include applications such as self-check quizzes, video introductions, story boards, and online forums.

**[Educational technology is] a technology that can help a person learn something.**

MICHAEL SPECTOR

We have divided the Technology category into two subcategories: Tools and Tasks.

- In the Tools section you will find descriptions of online resources you can make use of in your course design. We highlight Moodle as a learning management system in this section, but we also feature other open web resources.
- In the Tasks section you will find ideas and suggestions for how to make use of the tools to fit your educational purpose. We grouped the tasks into those related to content creation, learning activities, and communication.

[1] J. Michael Spector, *Foundations of Educational Technology: Integrative Approaches and Interdisciplinary Perspectives*, 2nd ed. (New York: Routledge, 2016), 9.

## 1.4. Tools

### 1.4.1. Open tools



#### 1.4.1.1. Free Online Tools

By [Jill Zwylghuizen](#)

If you need help finding the right tool to create content for your course, the following list is a good place to start looking for ideas.

[Canva](#) – easily create and download graphics (offers [free Pro accounts for non-profits](#))

[Loom](#) – record, edit, and share videos ([free Pro accounts with 45 minute video length are available to teachers and students](#)).

[Openclipart](#) – clipart, all licensed under CC0 (free to use and modify, no attribution required)

[Pixabay](#) – photographs and clipart, all licensed under CC0 (free to use and modify, no attribution required)

[Prezi](#) – presentation software, alternative to PowerPoint

[Screencastify](#) – record and share videos up to 5 minutes long (Google Chrome only)

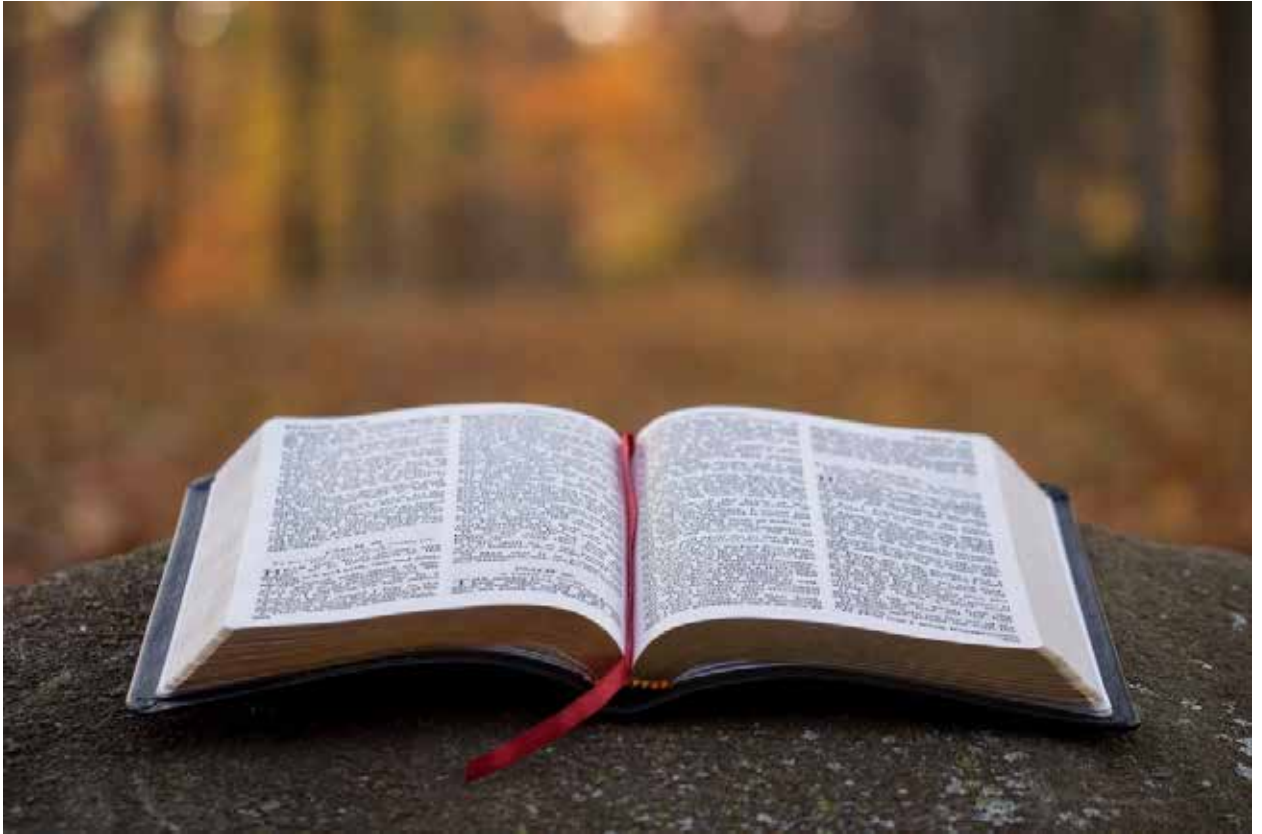
[Screencast-o-matic](#) – record and share videos up to 15 minutes long

[Tuxpi](#) – free image editing tool (including fade effects)

[Unsplash](#) – photographs, all licensed under CC0 (free to use and modify, no attribution required)

[Wikimedia Commons](#) – media files, all licensed under Creative Commons (some images require attribution)

[Webresizer](#) – image resizing tool



#### 1.4.1.2. Bible Study Tools

By [Tim Bahula](#)

Access to quality Bible study tools is a perennial challenge for online theological students, even for English-speaking students. Here is a list of sites to recommend to students to help them with their research.

1. Biblia ([biblia.com](http://biblia.com)) by Faithlife, the company behind Logos Bible Software. The interface is available in English, French, German, Spanish, Portuguese, Chinese (Simplified and Traditional), and Korean. Creating a free account provides access to 61 Bibles and 34 other English resources. Signing in with your Faithlife account provides access to any resources you have available in Logos Bible Software.
2. STEP Bible ([stepbible.org](http://stepbible.org)) by Tyndale House. The interface is available in 60 languages, including English, French, German, Spanish, Portuguese, Chinese (Simplified and Traditional), and Korean. Some languages have been machine translated. Bibles are available in over 250 languages. There is a small collection of public domain English commentaries.
3. Google Books ([books.google.com](http://books.google.com)) by Google. The interface is available in over 100 languages, including English, French, German, Spanish, Portuguese, Chinese (Simplified and Traditional), and Korean. Google Books has more than 10 million free books available for users. Some are public domain and have a full-text preview available; others are copyright and have limited text preview (but often up to 75%). They can use Advanced Book Search ([books.google.com/advanced\\_book\\_search](http://books.google.com/advanced_book_search)) to narrow down the search results. It can also be used creatively to find related books, such as English language commentaries on Matthew's Gospel (subject:"Religion / Biblical Commentary / New Testament" intitle:Matthew).



4. Theological Journals Search ([oru.libguides.com/theologicaljournalssearch](http://oru.libguides.com/theologicaljournalssearch)) by Oral Roberts University Library. This custom search engine uses Google to search through hundreds of open-access theological journals and websites. Further, the site links to other sites that list open-access resources for research in biblical and theological studies.
5. Blue Letter Bible ([blueletterbible.org](http://blueletterbible.org)). This free, searchable online Bible program provides access to many different Bible translations, including KJV, NKJV, NLT, ESV, NASB. Also, the site provides in-depth study tools with access to commentaries, encyclopedias, dictionaries, and other theological resources.



### 1.4.1.3. Google Tools

By [Jill Zwyghuizen](#)

At Horizon we frequently make use of Google tools to collaborate on projects. We find them so useful that we ask everyone who takes *Designing for Online Learning* to [sign up for a Google account](#) if they don't already have one. Here are some of the Google tools we have found most useful for collaborative activities in online courses.

#### **Google Docs** ([docs.google.com](https://docs.google.com))

Google docs can be easily shared with anyone and allow for multiple people to edit the same document in real time. For example, you could ask students to ideate (generate ideas for) a topic and they could all contribute (either synchronously or asynchronously) to a Google doc.

#### **Google Drive** ([drive.google.com](https://drive.google.com))

If you ask students to collaborate on a research project, they could list articles they find in a shared Google doc, but they could also upload files to a shared Google drive folder.

#### **Google Forms** ([forms.google.com](https://forms.google.com))

If you want to survey students about particular issue, Google forms are an easy way to do this. Student responses can be collected in a Google sheet.

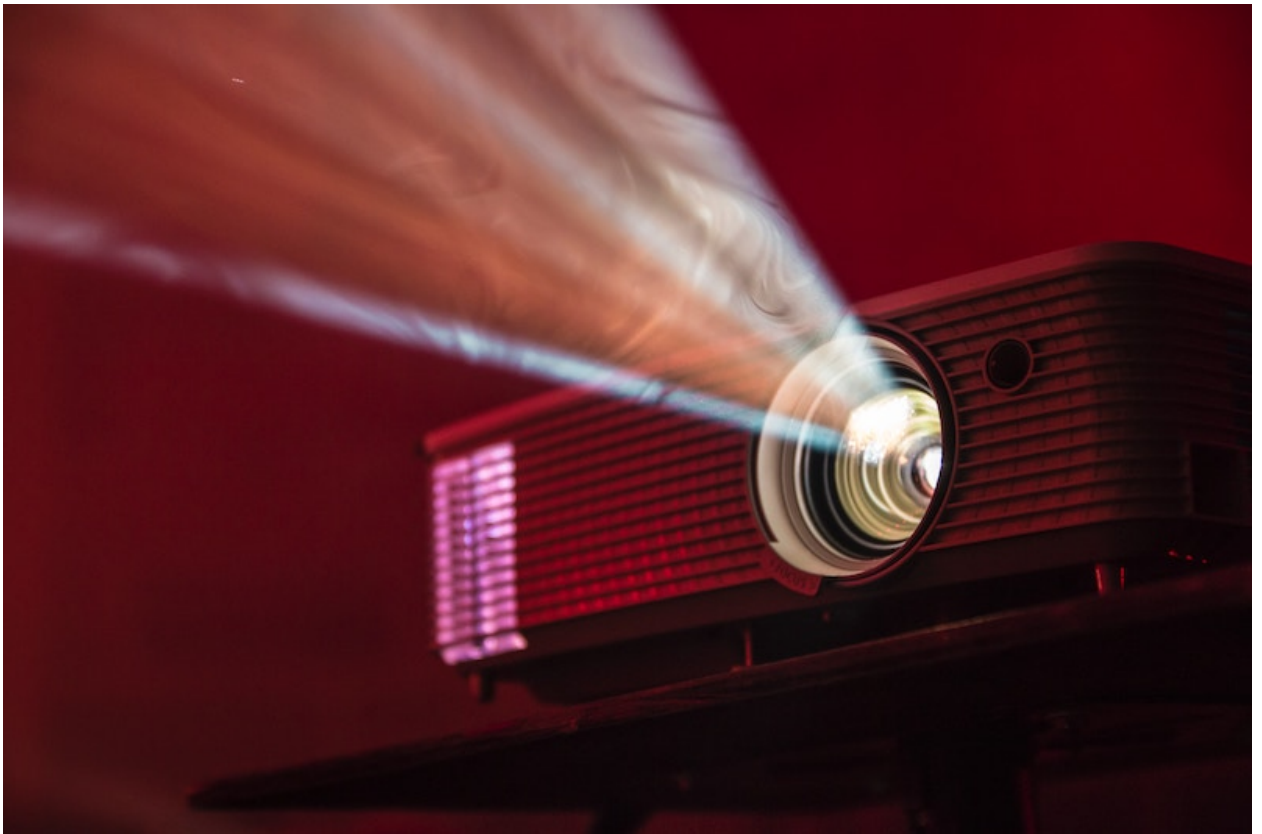
#### **Google Sheets** ([sheets.google.com](https://sheets.google.com))

Google sheets are a great way to collaborate when you have a schedule or a lot of quantitative data to share. (Sheets is the equivalent of Excel.)

#### **Google Slides** ([slides.google.com](https://slides.google.com))

If you want students to create a presentation about a topic, you could ask them to make a Google slides presentation. Students could collaborate on a presentation of a group project. (Slides is the equivalent of PowerPoint.)

You might also want to check out the post about [Google Hangouts](#) for more ideas about collaborative assignments.



### 1.4.1.4. Presentation Tools

By [Jill Zwuyghuizen](#)

How do you present content to students when you teach in a face-to-face classroom? Do you lecture from notes? Write on a chalkboard? Project a file or presentation on a screen? Some of these methods are easier than others to replicate in an online environment. In this post we will focus on presentation tools that you can use to communicate course material with your students.

PowerPoint was the standard presentation software for many years and is thus the presentation software that most people are familiar with. PowerPoint gets its fair share of criticism, but it is a powerful tool that we can leverage for online learning. When we think about PowerPoint (or Keynote or Google Slides) presentations for our face-to-face lectures, the ideal presentation contains graphics to support the spoken content, but the presentation itself has limited text projected on screen. Books like [Slide:ology](#) by Nancy Duarte and [Presentation Zen](#) by Garr Reynolds focus on building presentations for this purpose.

However, what we are most interested in is how a tool like PowerPoint can be leveraged for online learning. Let's say you have been teaching in a face-to-face classroom for years using PowerPoint to communicate your big ideas to your learners. You already have great content brought together and packaged in PowerPoint and you want to know how you can share the resources you already have with your online students. One way you could do so would be to use [screen capture tools](#) to record yourself talking through the presentations so that your online learners can see the content and hear your voice. Video is a great option in areas where internet connectivity is generally reliable. But if students do not have consistent internet access to view a



long video, or if bandwidth is a problem, relying on video can be problematic. So what are some of the other options?

One great feature of PowerPoint is the presenter notes section. You may be familiar with it as a place to record notes to yourself of items you want to cover in your lecture. But did you know that you can also create handouts for your students using the notes section? In the View menu of PowerPoint you can choose to view the Notes page. In this layout, you can see your slide at the top of the page and the notes section at the bottom of the page. You can adjust the size of both sections in this layout. You can make use of the Notes section to write out the key ideas you usually share during the lecture while still including all the great visuals from your slides. Then when you are done, you can save the presentation and notes as a PDF that your students can download and read. This is one way to adapt the material you have already created for use in an online classroom.

Another possibility is to think about adapting your PowerPoint presentations to stand alone as a way to present content. This might mean adding more text than you already have to the slides to make clear the relationship between the main points or to clarify the significance of data and images. The goal is to create a presentation that you can save either as a .pptx file or as a PDF. Then students can download and read through the presentation. Once you've taken the time to create a file like this out of your presentation, you may even find that it works as a handout that your face-to-face students would appreciate having to reference after the in-person lecture. If you are interested in learning more about developing standalone presentations like this, Nancy Duarte has a great book called [Slidedocs](#) that you can download for free on her website.

Both of these options take up far less bandwidth than video, and so they can be great options if you need to reach students with limited internet access.

[Google Slides](#) is one of the Google tools that is fantastic for collaboration (for instance, if online students need to work together to create a presentation), but it is somewhat limited in the other features it supports as compared with PowerPoint. If you are thinking of using Slides to build your own presentations to share with students, just be aware that if you are coming to it from PowerPoint you may find that it cannot (yet) do all of the same things that PowerPoint can do.

If you are sick of PowerPoint, one other presentation option that is worth knowing about is [Prezi](#). This is a great option for face-to-face or recorded video presentations, and it can also be leveraged effectively for building standalone presentations that students can click through. Essentially the Prezi platform lets you zoom in and out and move around on a large background image. For example, if you have a lecture that compares and contrasts conditions in several different countries, you can zoom to that country on the map and project the statistics for that region, then zoom over to the next country and project those statistics. If there is a strong visual hierarchy to your content, Prezi presentations can be a great way to visualize it for your learners.



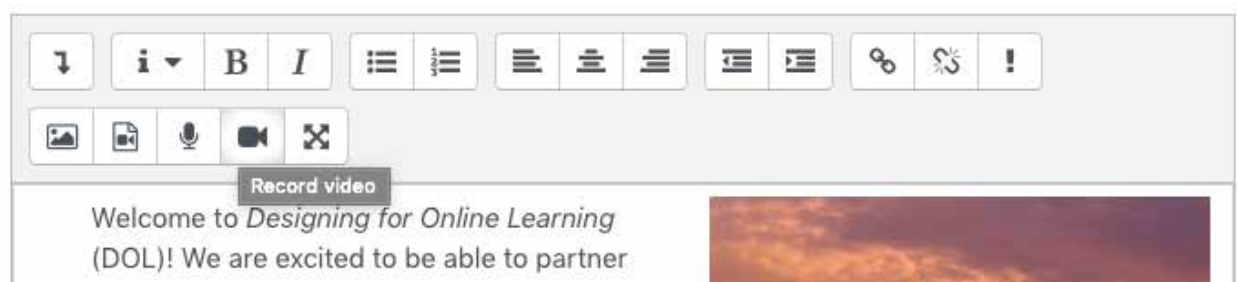
### 1.4.1.5. Video Recording Tools

By [Jill Zwylghuizen](#)

When you are teaching an online class, using video is a great way to increase your online presence as students hear your voice and see your face. There are plenty of free tools that help you capture and edit videos and make it easy to share videos with your students. These tools are also easy for students to use to create video presentations for the course. This post highlights a few of the free tools that we make use of at Horizon.

If you want to make a quick video to introduce yourself to students at the beginning of a course, or highlight key information at the beginning of a new unit, or even give feedback on an assessment, there are several screen capture options that make it easy to do so.

The Atto editor in Moodle comes with an option to record audio or video. This is great for short (1-2 minute) videos if you want to explain assignment directions, give feedback, or ask students to reply to a discussion prompt. The video editor will let you record, preview, and re-record as necessary. If you are working in Moodle, this would be the simplest way to include short audio or video content.



*You can record audio or video in Moodle's Atto editor.*

If you need a slightly longer video, there is a plugin to Google's Chrome browser called [Screencastify](#) that is easy to use. The free version allows you to record up to 5 minutes of video, which is great for a course or unit introduction, and for student presentations. One really nice feature of Screencastify is the option to trim your videos. This allows you to cut out the opening few seconds of getting your screen situated to what you want to show. It also allows you to embed your webcam anywhere on screen so you can, for example, show a PowerPoint slide on screen and have a smaller window in the corner with your face visible. These videos are saved to your Google drive and you can share or embed them with a link.

[Loom](#) is another easy-to-use screen capture option that works in browsers other than Chrome. The free version allows you to record 5 minute videos, however [Loom offers free Pro accounts to teachers and students](#). These free education accounts allow you to record videos of up to 45 minutes. You have an option to embed your webcam on the screen so students can see both you and the content you want to share. Loom also gives you the option to lightly edit your videos (the trim feature can be used to cut content from anywhere in the video) before publishing the link.

If you need to record a video that is longer than 5 minutes, [Screencast-o-matic](#) will let you record up to 15 minutes of video. Like Screencastify and Loom, you can choose to embed your webcam and trim the beginning and end of your video before exporting it.

With any of the screencapture options, once you have recorded your video, you can get a link to it that can be posted in Moodle for your students to view. If you are using one of these for student presentations, students can submit the link to their videos either in a Moodle Assignment (which can be configured to accept links) or in a Forum, where they can post presentations for viewing by their classmates as well as the facilitator.

Aside from the ability to trim the beginning and end of your recording, most free screen capture tools do not give you the ability to edit the resulting video (though Loom's editing options are slightly more robust). However, there are [plenty of free resources](#) out there for editing videos if you need that capability.

## 1.4.2. Moodle Tools



### 1.4.2.1. How to Import Quiz Questions in Moodle

By [Horizon](#)

If your subject matter expert has a quiz already written for the course in a Word document, you can modify it into a format that you can upload to Moodle. Though it is possible to import a variety of question formats, the easiest questions to import are multiple choice questions, which you can do using [Aiken format](#).

To import multiple choice questions, format each question in a Word document like this:

What color is the sky?

- A. Red
- B. Green
- C. Orange
- D. Blue

ANSWER: D

The ocean is blue.

- A. True
- B. False

ANSWER: A

You can have as many choices as you want, but you need to have capital letters for each choice (A, B, C, etc.). Following the last choice, type ANSWER in all capital letters, followed by a colon, followed by the letter of the correct answer. You can include as many questions in the document as you want.



TIP: The one drawback to the Aiken format is that it does not accept quotation marks or apostrophes in any of the questions that you import. As an alternative solution, if you have a question that contains a single or double quote, you can replace it with a different character in the import file and then change it back to a quotation mark after you have imported the question into Moodle. Here are a couple of examples:

The snow\*s color is:

- A. White
- B. Red
- C. Blue
- D. Green
- E. Purple

ANSWER: A

Marie asked, \*\*What color is the grass?\*\* How would you answer her?

- A. Orange
- B. Green
- C. Purple
- D. Black

ANSWER: B

After you have formatted all of the questions in your file and deleted or replaced all quotation marks, you are ready to save the file as a text file. If you started with a Word document, select “Save As” and change the file format to Plain Text (.txt).

Then open Moodle, turn editing on, and click on the “Administration” tab. Click on the arrow icon to the left of “Question Bank” to expand the question bank options, and choose “Import.”

Select “Aiken format,” upload your .txt file, and click “Import.” The next page will tell you how many questions were imported. If there were no quotation marks or other errors in your text file, the number of questions imported should be the same as the total number of questions in your file. If not, you will be able to see which questions were imported and which were not. When you are finished, click “Continue.”

The next page is the question bank where you will be able to edit the questions you just imported. If you had any questions with quotation marks, you will now be able to put them back into your questions. Click on the “Edit” icon next to each question that included a quotation mark and change whatever character you substituted for it back into a quotation mark.

TIP: You will notice in the question bank that the default name of each question is the text of the question. You will also notice that the questions are alphabetized by the question name. If you want to keep your questions in the same order as they were in the original quiz, you can number the questions in your text document. They will then be numbered in the Moodle question bank and will alphabetize accordingly. It can be helpful to have the number as part of the question name, but you will likely want to delete the number at the beginning of the question text so that your quiz questions are not numbered twice (once in the question text and once by Moodle as part of the quiz).

If you have questions to import that are not multiple choice or true/false, you can use an alternate format called [GIFT format](#).



#### 1.4.2.2. How to Set Up Moodle Q&A Forums

By [Horizon](#)

In a Q and A forum, students are required to post a reply to the question posted by the facilitator before they are able to see any of the posts made by their peers. This can be useful for graded forums where you want everyone to post their own work before they encounter the work of other students.

When you set up a Q and A forum, you usually want to put generic instructions about how to complete the forum at the top, not the actual content of the question. In Q and A forums, the facilitator has to post the actual text of the question each time the course is offered. This is another way to increase teacher presence in the course since it means that the facilitator's picture and a timestamp appear next to the question (see the screenshot below). However, as a course designer, you need to be aware that the text of the question that the facilitator posts will be removed from the course along with all of the student data any time a new copy of the course is created.




## Week 5 Forum: Applying LX Principles to Your Course: Designing for Engagement



Click on the discussion thread below. Carefully read the question(s) and then click on "reply" to answer with your comments. After posting your response, there will be a delay of approximately 5 minutes before you will be able to read other classmates' comments. When those become available, read over the replies of your fellow students and respond to at least two of them. By clicking on "reply" to the appropriate person, you help keep the forum organized and easy to follow.

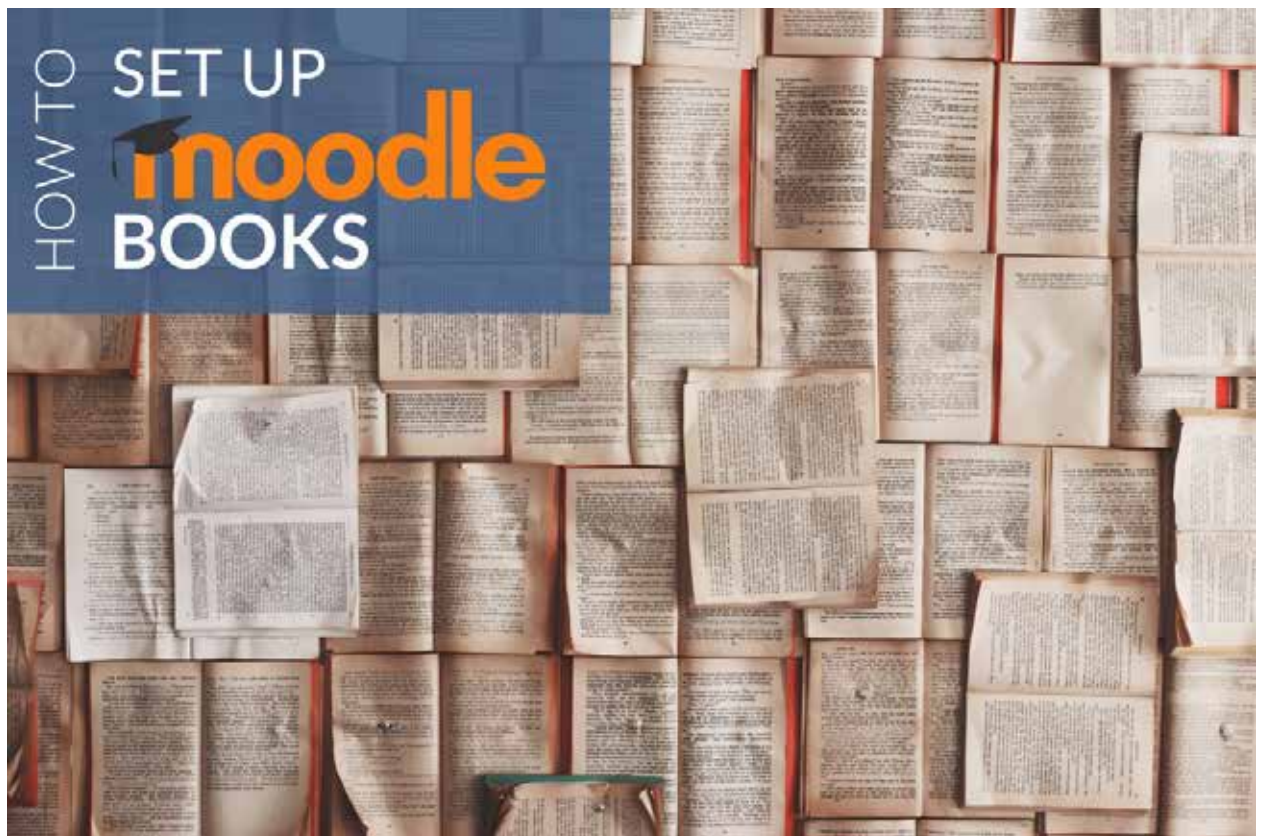
Remember that postings to forums can be read by all participants in the class.

Add a new question

Discussion	Started by	Last post ↓	Replies ✓	Subscribe
☆ Applying LX principles to your course	 Jill Zwyzhuiz... 8 Oct 2020	 Rob Hayden 15 Oct 2020	18	 

Because the facilitator's post is removed from the course, if you want the text of the discussion question to be copied along with the course, you will need to create a copy of the question text somewhere else. Horizon's method for doing this is to create a section at the end of each course that is hidden from students but visible to the facilitator. We usually call this final section "Teacher Documents." When Horizon designs a course, we create a Moodle book in the hidden Teacher Documents section to house the text of any Q and A forum questions that will be used in the course. We usually create a page for each forum and put the text of the questions there. Facilitators can then go to that book to copy the text of each question that they need to post and paste it into the appropriate forum as they set up their individual course.

You could also include the text of your Q and A forum questions in a Word document and hide the file or put the file in a section that is hidden from students. Whatever method you choose, we recommend that you find a way to include the text of the discussion questions for the facilitator somewhere in the course whenever you use Q and A forums.



### 1.4.2.3. How to Set Up Moodle Books

By [Horizon](#)

When you are designing an online course, you might know that you are going to have a Moodle book on a certain topic, but you don't have all of the content to write in the book right away. Sometimes it is helpful to set up placeholder pages in the book when you are doing your initial course development work and then you can come back and fill in the content later.

The best way to start is to ask the subject matter expert on your design team to give you a short outline of the major topics that will be covered in the book. Then you can use their outline to create some placeholder pages. For example, suppose the subject matter expert tells you that the book will cover three major topics, and that the third topic will be split into three subcategories.

- . Topic A
- . Topic B
- . Topic C
  - o Subtopic 1
  - o Subtopic 2
  - o Subtopic 3

If you are using a Horizon template course, all you need to do is open one of the placeholder books in the template and start to add some placeholder pages. Once you click the link to open the book and turn editing on, you will see a Table of Contents on the left side with a "Chapter Title" page and a "Subchapter Title" page.



Table of contents					
Chapter Title	↓	⚙	🗑	👁	+
Subchapter Title	↑	⚙	🗑	👁	+

Let's say that you want to rename the "Chapter Title" page as an introduction page, so you need to add pages for each of your major topics. If you click on the plus sign next to "Chapter Title," it will bring up a page where you can add a new chapter. Give it a title ("Topic A"), and write something in the content box (even if it's just "xxx"). Then click "Save changes." Do the same thing to add chapters for "Topic B" and "Topic C." You can rename the "Subchapter Title" page "Subtopic 1." Then, you can click on the plus sign next to it to add two more subchapters for "Subtopic 2" and "Subtopic 3." As with the chapter pages, you will need to type in a title and something in the content page. Whatever you type in the content page for now, you can need to come back and replace with the actual lesson content later.

**TIP:** Underneath the title on each page of the Moodle book is a checkbox that says "Subchapter." Checking that box will indent any page under the previous page as a subchapter. You will not see this option on the first page you create in a new Moodle book, but it will be an option on the second and following pages.

**TIP:** If you are not using a template course, you will first need to add a book from the "Add an activity or resource" menu. Give the book a name, then click "Save and display." You will then be prompted to add a new chapter. Give the chapter a title ("Topic A" in our outline above) and type something in the content box (even if it's just "xxx"). Then click "Save changes." Once you have your first page created, you'll be able to add additional pages following the same directions as above.



## 1.4.2.4. How to Set Up Moodle Lessons

By [Horizon](#)

Moodle lessons are a little more complicated to set up than [Moodle books](#). So if you want to use a Moodle lesson for your content, here are a few tips to get you started.

Let's say you have an outline with three topics and the third topic has three subtopics. You decide you want to ask a comprehension question after each topic. Your Moodle lesson outline might look something like this:

- . Introduction
- . Topic A
- . Question A
- . Topic B
- . Question B
- . Topic C
- . Question C
- . Subtopics 1, 2, and 3

If you are using a Horizon template course, when you open a placeholder lesson, you will see a preview page that tells you that you will not see a progress bar because you can edit the lesson. You can click on the “Edit” tab and see an overview of all the pages in the lesson. Underneath the “Edit” tab there are options for collapsed view and expanded view. Collapsed view is usually the easiest to work with at this stage.

**TIP:** If you are not using a Horizon template, you will first need to add a lesson from the “Add an activity or resource” menu. Give the lesson a name, then click “Save and

display.” Choose “Add a content page” and follow the directions below for adding a page (starting with Topic B).

The lesson in the Horizon template course comes pre-filled with two content pages and an essay question page. You can click on the “Edit” icon next to “Content” page and rename it “Introduction,” and click on the “Edit” icon next to “Second content page” and rename it “Topic A.” Then you can click on the “Edit” icon next to the “Question” page and rename it “Question A” if you want your first question to be an essay. Essay questions are ungraded, but students do have to type something in the question field before they can move on to the next page of the lesson. If you want a multiple choice or some other objective question instead, you can supply the correct answer to the question and give feedback to students as they progress through the lesson. Let’s suppose, for now, that you keep Question A as an essay question.

To add a content page for “Topic B,” go to the dropdown menu next to the “Question” page and select “Add a content page.” You can then give the page a title (“Topic B”), and type something for the page contents (“xxx”).

**The most confusing part about setting up lessons is setting up the navigation buttons on each page.** Under the “Page Contents” box is a series of options called “Content 1,” “Content 2,” etc. Each one has a “Description” box and a “Jump” menu. The description boxes are where you type the labels for the buttons that students will see at the end of each page. The associated jumps are where you indicate the page that the button will take them to. In most cases, all you need to do is type “Next” in the “Description” box, and choose “Next page” in the “Jump” menu. Then click “Save Page.”

TIP: If you would like to have a Previous button, type “Previous” in the Content 1 Description and choose “Previous page” in the Content 1 Jump menu. Then type “Next” in the Content 2 Description and choose “Next page” in the Content 2 Jump menu.

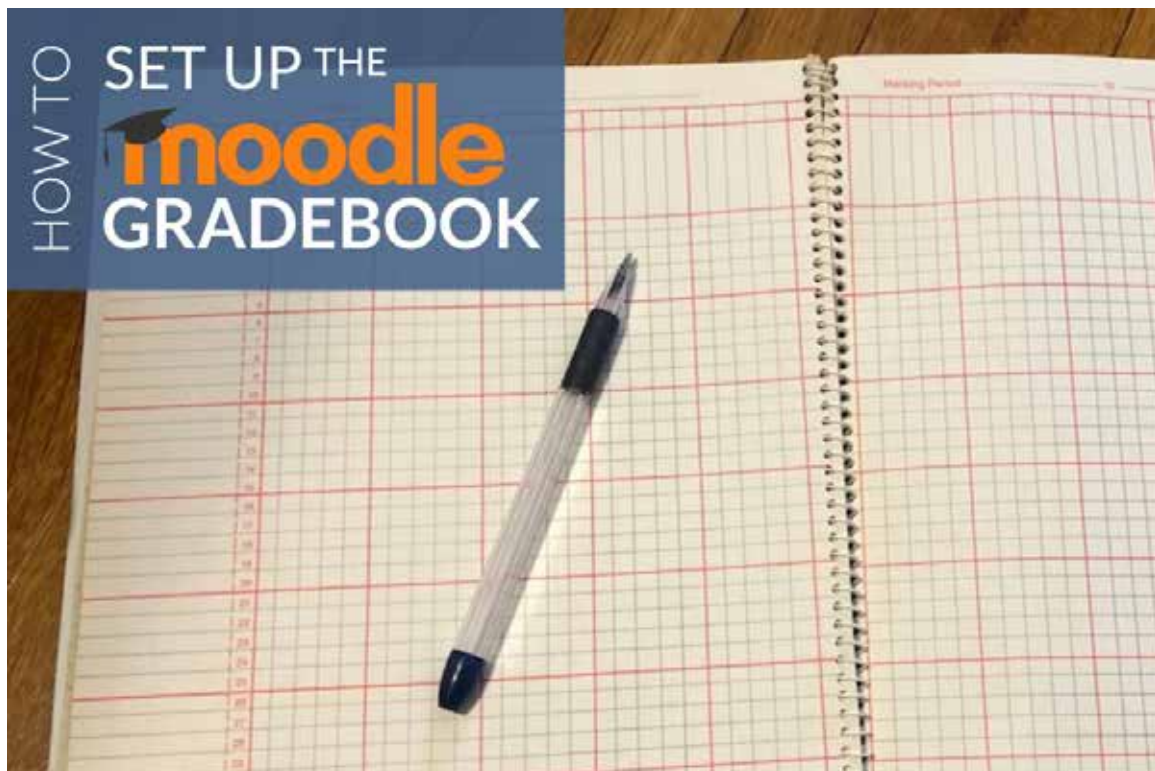
Now you are ready to add a question page for “Question B.” In the dropdown next to “Topic B,” select “Question.” You will then be prompted to select the question type. Let’s say you select Multichoice, and click “Add a question page.” Give the question page a title (“Question B”), and type the text of the question in “Page Contents.” Type in the answer choices where it says “Answer 1,” “Answer 2,” etc. You can type a feedback response to go along with each answer if you want, or you can leave the response box blank. If you intend to score the lesson, you can give 1 point for the correct choice and 0 points for the incorrect choices. You can also set the page jump after each response. This is useful if you want to include a page where you explain how to get the correct answer to the question that students will only see if they get the question wrong. You will need to create that page before you will be able to select it when you are editing the question. When you are done setting up the answers, click “Save page.”

PRO TIP: If you are setting up a multiple choice question and you want to include more options than are listed on the page, you can adjust the number of answer choices in the lesson settings. Click the “Edit settings” icon next to the lesson on the course homepage, expand the Appearance settings (you may need to click “Show more”), and increase the “Maximum number of answers” to the number you need. Then click “Save and display.”

Repeat the process of adding pages for “Topic C” and “Question C.” You will notice, once you start adding pages to your lesson, that you can select the pages you have added in addition to selecting “Previous page” or “Next page” when you are setting up jumps. This is very useful when you are setting up branching lessons and want to direct students to a specific page (for example, to skip the explanation page if they answered the question correctly).

When you add the final page of your lesson (“Subtopics 1, 2, and 3”), you will need to type something (“Next,” “End,” or “End of Lesson”) in the Description and choose the “End of lesson” option in the “Jump” menu.





### 1.4.2.5. How to Set up the Gradebook – Part 1

By [Horizon](#)

One of the most essential yet potentially confusing tasks that is necessary to complete before a course can be taught in Moodle is setting up the gradebook. This series of posts will be dedicated to walking you through this process.

## Getting Started

Before you begin the process of actually setting up the gradebook, there are a few preliminary steps that need to be accomplished:

1. **Design Learning Activities:** Make sure that all of the learning activities to be evaluated are included in the course. For easier reference later, include the week or topic number in the title of the activity (e.g., Week 5 Q&A Forum, Week 3 Written Assignment, Topic 6 Quiz). Then, delete any unused learning activity placeholders by clicking on the Edit menu (with editing turned on) to the right of the activity you wish to delete and selecting the Delete option.
2. **Determine Weights of Grades:** If you have not already done so, determine the weight of the assessment categories (e.g., quizzes, written assignments, forums) as well as the individual assessments, and add this information to your course syllabus.
3. **Open Gradebook Setup:** Click the blue Actions menu gear icon to the left of the “Turn editing off” button and select “Gradebook Setup” from the dropdown menu.

## Create Categories

Once you have completed the preliminary steps, you are ready to create any missing assessment categories (e.g., Readings, Participation or Attendance, Case Studies). To

do this, click on the grey “Add category” button at the bottom of the Gradebook Setup page and enter the name of the new category.

1	Week 7 Quiz: Title	10.00	Edit ▾	<input type="checkbox"/>
1	Week 8 Quiz: Title	10.00	Edit ▾	<input type="checkbox"/>
Quizzes total		100.00	Edit ▾	
Simple weighted mean of grades.				
Course total		100.00	Edit ▾	
Weighted mean of grades.				

Save changes

Move selected items to

Add grade item Add category

Then, save it by clicking the blue “Save Changes” button on both the New Category page as well as on the Gradebook Setup page.

Grade category

Category name

Aggregation

Show more...

Category total

Parent category


Save changes Cancel

## Categorize Assessments

After you have created categories for your assessments, you must then ensure that each assessment is properly categorized. To move an assessment to another category, mark the box to the right of the assessment(s) you want to move. Then, select the desired category from the “Move selected items to ...” dropdown menu on the bottom left of the Gradebook Setup page.


Week 2 Q&A Forum: Title	10.00	Edit +	<input checked="" type="checkbox"/>
Week 3 Q&A Forum: Title	10.00	Edit +	<input checked="" type="checkbox"/>
Week 4 Q&A Forum: Title	10.00	Edit +	<input checked="" type="checkbox"/>
Week 5 Q&A Forum: Title	10.00	Edit +	<input checked="" type="checkbox"/>
Week 6 Q&A Forum: Title	10.00	Edit +	<input checked="" type="checkbox"/>
Week 7 Q&A Forum: Title	10.00	Edit +	<input checked="" type="checkbox"/>
Week 8 Q&A Forum: Title	10.00	Edit +	<input checked="" type="checkbox"/>
<b>Discussion total</b> Simple weighted mean of grades.	<b>20.00</b>	Edit +	
<b>Course total</b> Weighted mean of grades.	<b>100.00</b>	Edit +	

Save changes

Move selected items to  

**Note:** If you need to add assignments for which you do not have a learning activity placeholder (e.g., a test taken on paper in the classroom), you can add them by clicking on the gray “Add grade item” button at the bottom of the Gradebook Setup page. You can then categorize these new items by clicking “Show more” under the Parent Category and choosing the desired category from the dropdown menu.

**Grade item**

Item name 

Maximum grade

Minimum grade


☐ Hidden


Hidden until      ☐ Enable

Lock after      ☐ Enable

**Parent category**

Item weight

Grade category 

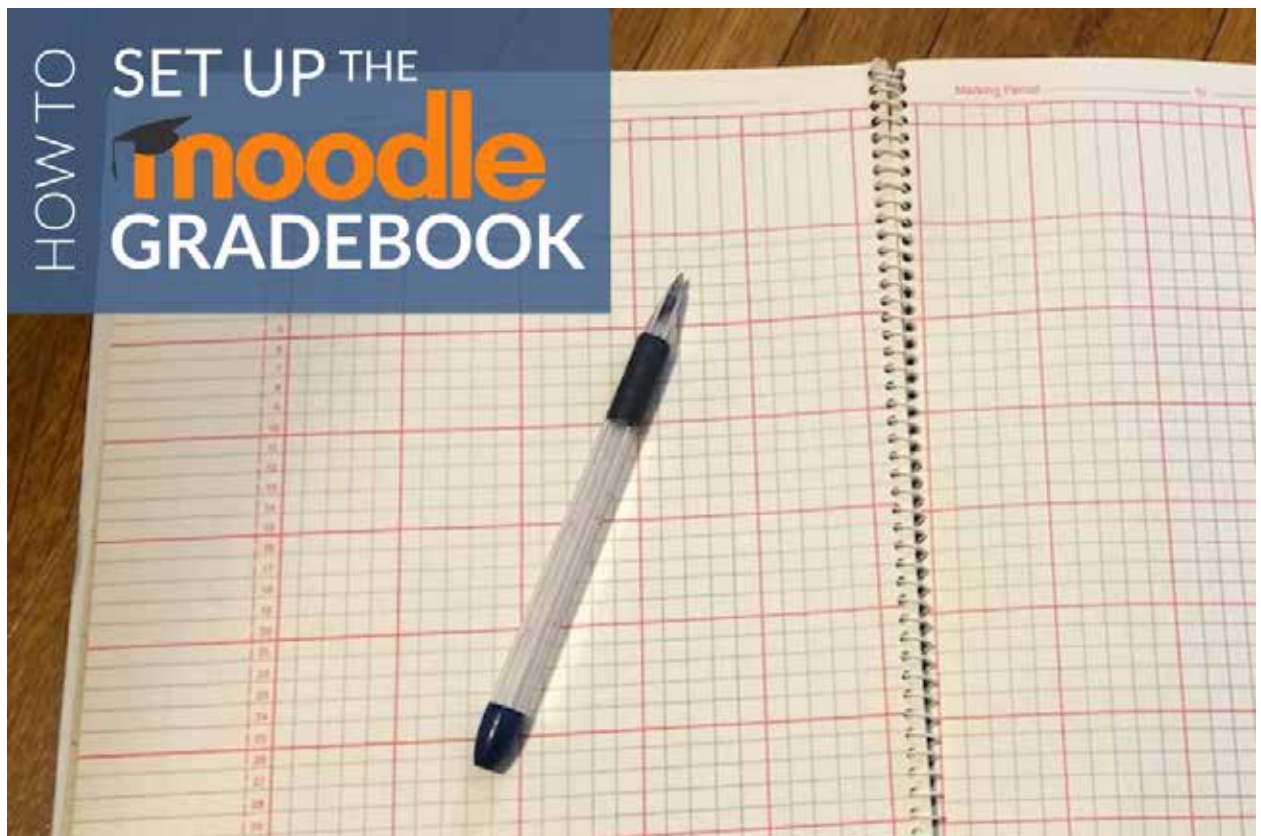


Don't forget to save these changes.

## Order Assessments

Within the categories, put all assessments in chronological order by clicking on the arrow to the left of the item and inserting the assessment in the desired location. As always, be sure to save your changes.





#### 1.4.2.1. How to Set up the Gradebook – Part 2

By [Horizon](#)

Once you have finished creating all the necessary categories and organizing all the assessments within these categories, the next step is to assign weights to each category and to each assessment within these categories.

##### Assign Category Weights

Begin by assigning weights to each category according to the weighting in the syllabus. To do this, simply enter the numerical value in the text box to the right of each category heading.



The screenshot displays a course management interface with two main categories: 'Quizzes' and 'Discussion'. The 'Quizzes' category has a weighted average of 40.0, and the 'Discussion' category has a weighted average of 20.0. Both values are highlighted with red boxes. The 'Quizzes' category lists eight individual quizzes, each with a title and a checkmark icon. The 'Discussion' category lists one forum post titled 'Week 2 Q&A Forum: Title'.

Category	Assessment	Weighted Average
Quizzes	Week 1 Quiz: Title	40.0
	Week 2 Quiz: Title	
	Week 3 Quiz: Title	
	Week 4 Quiz: Title	
	Week 5 Quiz: Title	
	Week 6 Quiz: Title	
	Week 7 Quiz: Title	
	Week 8 Quiz: Title	
<b>Quizzes total</b> Simple weighted mean of grades.		
Discussion	Week 2 Q&A Forum: Title	20.0

## Assign Assessment Weights within Categories


The next step is to assign weights to the assessments within each category. If assignments within categories are not equally weighted, assign individual weights by following this process:

1. Select "Edit Settings" from the dropdown "Edit" menu to the right of the category heading.

The screenshot shows the 'Edit Settings' form for a grade category. The 'Category name' is 'Writing Assignments'. The 'Aggregation' method is set to 'Weighted mean of grades', which is highlighted with a red arrow. Below the aggregation method, there are sections for 'Category total' and 'Parent category'. At the bottom, there are 'Save changes' and 'Cancel' buttons, with a red arrow pointing to the 'Save changes' button.

2. From the Aggregation menu, select "Weighted mean of grades" (Note: There are a variety of options of aggregation methods.)
3. Now you should see value boxes under the "Weights" column for each assessment in that category.
4. Assign weights to each assessment, according to the syllabus.

Writing Assignments		40.0	-
↑ 📄	Week 1 Writing Assignment: Title	1.0	100.00
↑ 📄	Week 2 Writing Assignment: Title	1.0	100.00
↑ 📄	Week 3 Writing Assignment: Title	1.0	100.00
↑ 📄	Week 4 Writing Assignment: Title	2.0	100.00
↑ 📄	Week 5 Writing Assignment: Title	1.0	100.00
↑ 📄	Week 6 Writing Assignment: Title	1.0	100.00
↑ 📄	Week 7 Writing Assignment: Title	1.0	100.00
↑ 📄	Week 8 Writing Assignment: Title	2.0	100.00
🔗	<b>Writing Assignments total</b>		<b>40.00</b>
	Weighted mean of grades.		



Don't forget to save your changes on the Gradebook Setup page.

## Final Check

The last step in the process of setting up the gradebook is to check to make sure that everything is in working order. Here are some things that you should be sure to check:

1. Verify that all assessments are within the proper category and that they appear in the same order as they do on the Course Homepage.
2. Verify that the categories are properly weighted.
3. Verify that all assessments are properly weighted.
4. Save any final changes.

Congratulations! You are now one step closer to getting your course ready to facilitate.



## 1.4.2.2. How to Embed Links and Videos in Moodle

By [Horizon](#)

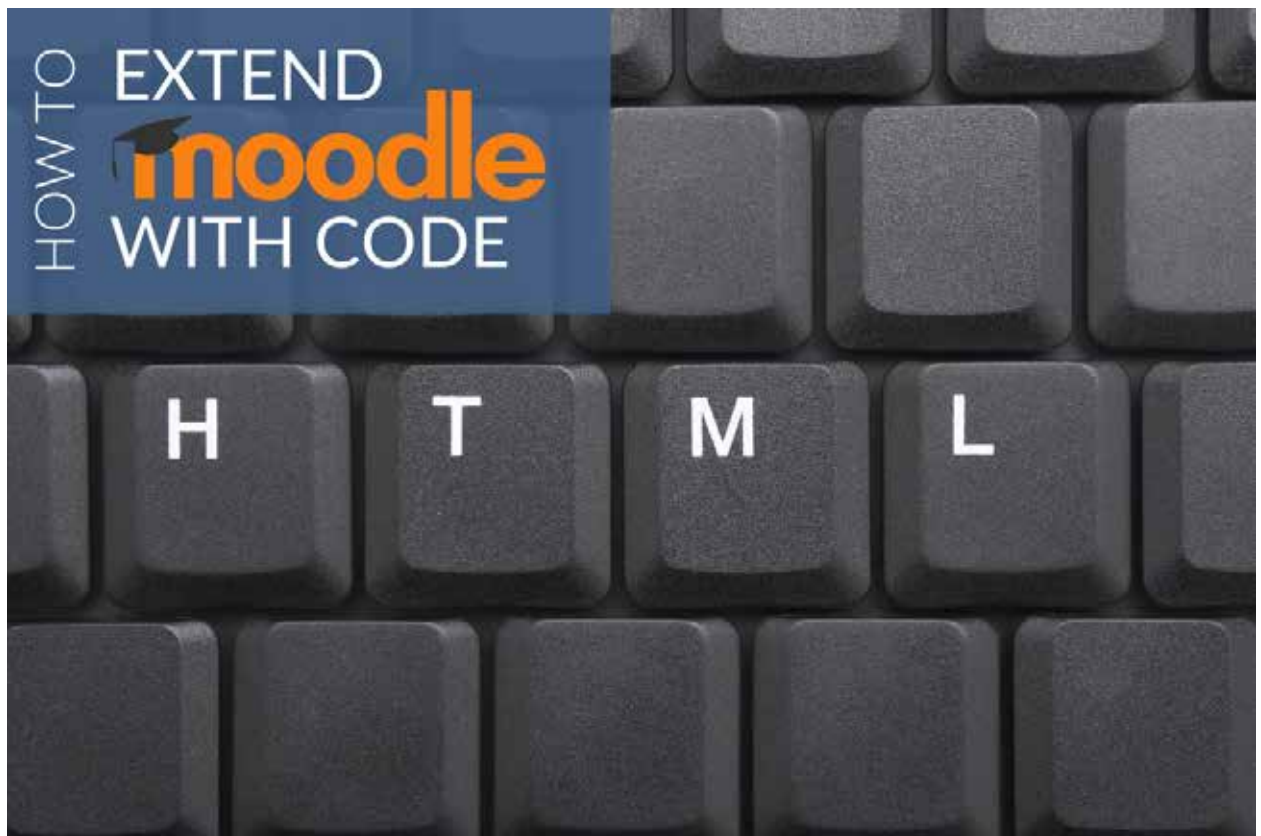
If you want to include any links to outside web resources in your course, you can add them to the page of a Moodle lesson or book, the course homepage, or anywhere else that you enter text using the Moodle text editor. To do this, copy the URL of the website you want to link to, highlight the text you want to link in the editor, then click on the “Insert/edit link” button. (Note: you will need to expand the toolbar in the editor to see this button.) Paste the URL you copied into the “Link URL” line of the popup box, then change the “Target” dropdown menu to the “Open in new window (\_blank)” option.”

**TIP:** We recommend that you always set links to open in a new window so that students do not lose their place in your Moodle course. If the link is set to open in the same window, then students have to use the “Back” button in their browser to return to Moodle. If enough time has passed, they may even be signed out of Moodle and have to log back into the course. Setting links to open in a new tab avoids this problem.

If you plan to include any videos in your course, you can embed them anywhere you can insert a link. Some of the most commonly used places are a Moodle page, or the pages of a book or a lesson. YouTube videos are the easiest to embed because Moodle will automatically convert a link to a YouTube video into an embedded video.

To embed videos from other sites, find the embed code for the video in the video’s sharing settings and copy it from the site. Then, open the editor for the Moodle page where you want to display the video. Click on the “Edit HTML source” button in the editor, and paste the embed code in the appropriate location on the page. Click “Update,” then click “Save changes.”

PRO TIP: The embed code is usually formatted with an iframe tag that looks something like this:



### 1.4.2.3. Extending Moodle Using HTML – Part 1

By [Horizon](#)

One of the great features of Moodle is how it can be easily extended. One way to do this is by using code snippets, which are small blocks of HTML code that you can insert into the HTML source editor to add features to your course that will enhance its usability. Teaching you how to create code snippets is beyond the scope of this resource; however, using a precreated code snippet is as easy as copying the code from this post and pasting it into an HTML source editor in the course you are building.

In this series of posts, you will learn how to insert code snippets of four commonly used features for displaying course content in Moodle: modals, collapsibles, pills, and tabs. Before we begin, it is important to emphasize a couple of things. First of all, Moodle does not allow these code snippets to be used in some locations (such as the profiles). Therefore, if the code snippets are incompatible in the location you are trying to use them, they may be automatically removed or may not function as expected. Also, make sure that you are using the HTML source editor instead of the standard text editor when customizing the text for the code snippets. If you use the standard text editor, it may not work as expected.

To access an HTML source editor, click on the “HTML” icon in the editing window. Then, paste the code snippet into the HTML source editor. After that, customize the text that appears in orange in the code snippet.

## Modals

A modal is a dialog box or popup window used to display small blocks of content that may not fit as seamlessly in a Moodle book or lesson. In Horizon’s *Designing for Online*



Learning course, for example, modals labeled “Design Choices” appear throughout the course with explanations of why we made the design decisions we did.

## Modal code

To add a modal to your course, copy and paste the following code snippet into your HTML source editor in the desired location in your course:

```
<!-- Button to Open the Modal -->
<button type="button" class="btn btn-primary" data-toggle="modal" data-
target="#myModal">
  Open modal
</button>
<!-- The Modal -->
<div class="modal" id="myModal">
  <div class="modal-dialog">
    <div class="modal-content">
      <!-- Modal Header -->
      <div class="modal-header">
        <h3 class="modal-title">Modal Heading</h3>
        <button type="button" class="close" data-dismiss="modal">&times;</button>
      </div>
      <!-- Modal body -->
      <div class="modal-body">
        Modal body.
      </div>
      <!-- Modal footer -->
      <div class="modal-footer">
        <button type="button" class="btn btn-danger" data-
dismiss="modal">Close</button>
      </div>
    </div>
  </div>
</div>
```

You will notice that there are three places in this code snippet with orange text, which means that you need to customize the text that will be displayed. The first is the name of the button that students will click on to open the modal (e.g. “Design Choices”). The second is modal heading, that is, the text that appears at the top of the popup window when the modal is opened. The final piece that you need to customize is the “Modal body” which is the main text that appears in the modal when it is opened. After you have customized the highlighted text in the code snippet to your liking, save your changes and try it out!

## Collapsible Accordions

A collapsible accordion allows users to hide (or show) blocks of content, which gives them the freedom to focus on certain portions of the content that are most important to them at the time and reduces the amount of scrolling that they need to do to access this information. This feature is modeled most prominently in Unit 2 of *Designing for Online Learning*.

## Collapsible accordion code

To add this feature to your course, copy the code snippet below and paste it into the HTML source editor in the location where you wish to use it:

```
<div id="accordion">
  <div class="card">
    <div class="card-header">
      <a class="card-link collapsed" data-toggle="collapse" href="#collapseOne" aria-
expanded="false">
        <h4>Card 1</h4>
      </a>
    </div>
    <div id="collapseOne" class="collapse" data-parent="#accordion" style="">
      <div class="card-body">
        Some content for card 1.
      </div>
    </div>
  </div>
  <div class="card">
    <div class="card-header">
      <a class="card-link collapsed" data-toggle="collapse" href="#collapseTwo" aria-
expanded="false">
        <h4>Card 2</h4>
      </a>
    </div>
    <div id="collapseTwo" class="collapse" data-parent="#accordion" style="">
      <div class="card-body">
        Some content for card 2.
      </div>
    </div>
  </div>
  <div class="card">
    <div class="card-header">
      <a class="card-link" data-toggle="collapse" href="#collapseThree" aria-
expanded="false">
        <h4>Card 3</h4>
      </a>
    </div>
    <div id="collapseThree" class="collapse" data-parent="#accordion" style="">
      <div class="card-body">
        Some content for card 3.
      </div>
    </div>
  </div>
</div>
```

The collapsible accordion feature uses cards that display as headings when they are collapsed and reveal a block of text under the headings when they are expanded. The above sample uses three cards with corresponding content. To customize it for your purposes, substitute the card titles in orange (Card 1, Card 2, Card 3) with titles of your own and the orange content text with the content that you wish to include in each card.

If you wish to add more cards, simply copy the code for one of the cards, paste it after the code for Card 3 and make the necessary changes to the text.

[Click here to read Part 2 on tabs and pills.](#)



### 1.4.2.1. Extending Moodle Using HTML – Part 2

By [Horizon](#)

Tabs are a navigation aid that allows multiple pieces of content to be displayed on one page side by side, which enables the student to navigate easily from one piece of content to another without needing to scroll. Horizon has chosen to use tabs on the homepage of many of its courses to display essential information such as the course description, the course objectives, and the copyright information.

#### Tabs code

To add tabs to your course, simply copy and paste the following code snippet into the HTML source editor in the desired location in the course:

```
<!-- Nav tabs -->
<ul class="nav nav-tabs" style="list-style-type: none;">
  <li class="nav-item active">
    <a class="nav-link active" data-          Tab 1</a>
  </li>
  <li class="nav-item">
    <a class="nav-link" data-                Tab 2</a>
  </li>
  <li class="nav-item">
    <a class="nav-link" data-                Tab 3</a>
  </li>
</ul>
<!-- Tab panes -->
<div class="tab-content">
  <div class="tab-          Some content for tab 1.</p></div>
```

```

<div class="tab-
  <div class="tab-
</div>
Some content for tab 2.</p></div>
Some content for tab 3.</p></div>
<hr style="background-color: #ddd; width: 100%; height: 1px; border: 0;">

```

As has been the case with the other features mentioned in Part 1 of this post, each tab is given a name (e.g. Course Objectives) and is populated with content. To customize the names of the tabs you wish to use in your course, simply replace the text in orange in the “Nav tabs” section with names of your own. To customize the content of each tab, replace the orange text in the “Tab panes” section with the content you wish to add.

## Tabs example with pills

Pills are a navigation aid that are used with tabs to give them a different look and feel. Since the function of the pill feature is like that of the tab feature, the process for adding them to your course is essentially the same. Begin by copying and pasting the following snippet into your HTML source editor:

```

<!-- Nav pills -->
<ul class="nav nav-pills">
  <li class="nav-item active">
    <a class="nav-link" data-
      Pill 1</a>
    </li>
  <li class="nav-item">
    <a class="nav-link" data-
      Pill 2</a>
    </li>
  <li class="nav-item">
    <a class="nav-link" data-
      Pill 3</a>
    </li>
</ul>
<!-- Pill panes -->
<div class="tab-content">
  <div class="tab-
    Some content for pill 1.</p></div>
  <div class="tab-
    Some content for pill 2.</p></div>
  <div class="tab-
    Some content for pill 3.</p></div>
</div>

```

Once you have done that, you will have to replace the orange text in the “Nav Pills” section with the names that you wish to give to each pill. Then, replace the orange text in the “Pill panes” section with the content that you would like to appear for each pill. When you are finished, don’t forget to save your changes.



## 1.5. Tasks

### 1.5.1. Content Creation



#### 1.5.1.1. Finding Images to Use

By [Jill Zwyghuizen](#)

A picture may be worth a thousand words, but finding the right picture can be a challenging task. And once you do find the perfect image, figuring out whether or not there are copyright restrictions attached to it, and what attributions might be needed can be even more challenging. This post will introduce you to some tools that aim to make that task more manageable.

Before we talk about where to find images, we first need to talk about copyrights. The author of an image has the right to determine whether or not the image may be reproduced or modified in any way, and they also have the right to be credited as the author any time the image is used. The phrase “all rights reserved” was once widely used to indicate that an author reserves all the rights associated with an image, meaning the image may not be reproduced without their permission. However, other authors are willing to waive some or all of the rights associated with an image and release it to be freely used, reproduced, and even adapted by others. An organization called [Creative Commons](#) has been instrumental in developing [licenses](#) for use by authors who want to allow others to use their work.

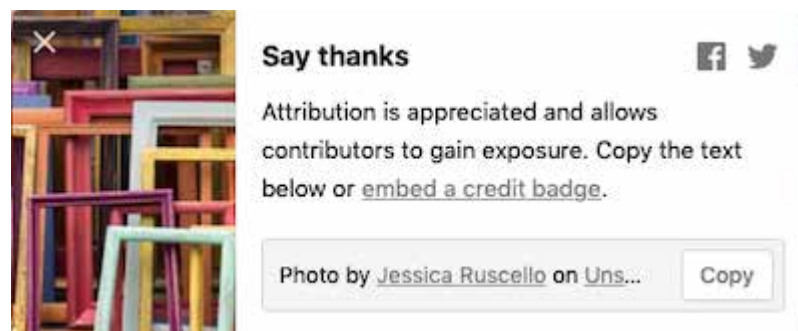
Any work that is licensed under Creative Commons will contain a copyright notice that begins with “[CC BY](#).” If you see this notice accompanying an image, it means you are free to use the image as long as you give credit the author of the image. There are other restrictions that can be added to Creative Commons licenses, like [Share Alike](#) (“[SA](#)”),

where the author specifies that any modifications of the image must be licensed under the same terms as the original, [Non Commercial](#) (“NC”), where the image may be used for any purpose except commercially, and [No Derivatives](#) (“ND”), where the image may be modified without the permission of the author.

There is a final Creative Commons category called “[CC0](#),” which is where image authors have waived all rights and released the image into the public domain. An image that is licensed under CC0 means you are free to use and adapt the image in any way you like, and you are not even required to give attribution to the author. It is still a good practice to give credit where credit is due, but it is not legally required for CC0 or public domain works. “Public domain” is used to refer to older works of art after their initial copyright has expired. This is often 50 to 100 years after they were created. Copyright law varies by country, so if you want to use an older work, it is important to make sure that it is considered public domain in your country.

Now that we’ve talked about copyright rules, here are some websites that make it easy to find images that can be used, reproduced, and modified, with or without attribution.

[Unsplash](#) is one of my favorite websites for finding images because every single photograph on the site is licensed under CC0. That means that all of the photographers who contribute to the website have waived their rights to the images, including their right to attribution. Even so, Unsplash makes it easy for you to give credit to the photographers by letting you copy the attribution line any time you download an image.



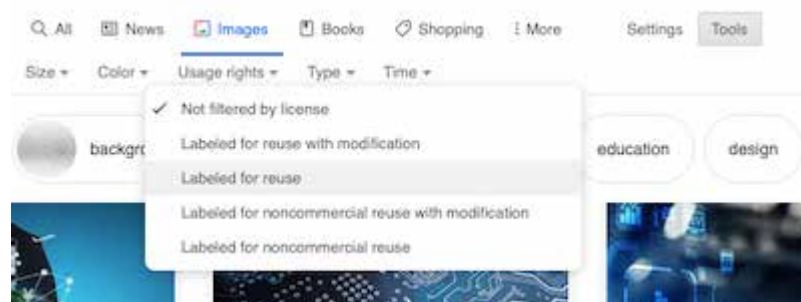
[Pixabay](#) is another site that has CC0 photographs and images. Like Unsplash, Pixabay gives you the option to copy the attribution information whenever you download an image, even though this is not required under CC0. One thing to be aware of is that Pixabay does contain links to stock photo websites where you would have to pay for the images. But as long as you are searching Pixabay and not one of their affiliate websites, the images are free. Also, while Unsplash is limited to photographs, Pixabay includes both photographs and clipart.

If you are looking specifically for clipart, [Openclipart](#) is a collection of clipart that is all licensed under CC0. It does not offer you a place to copy the attribution information like Unsplash and Pixabay do, but you can see the author of the work listed any time you click on an image.

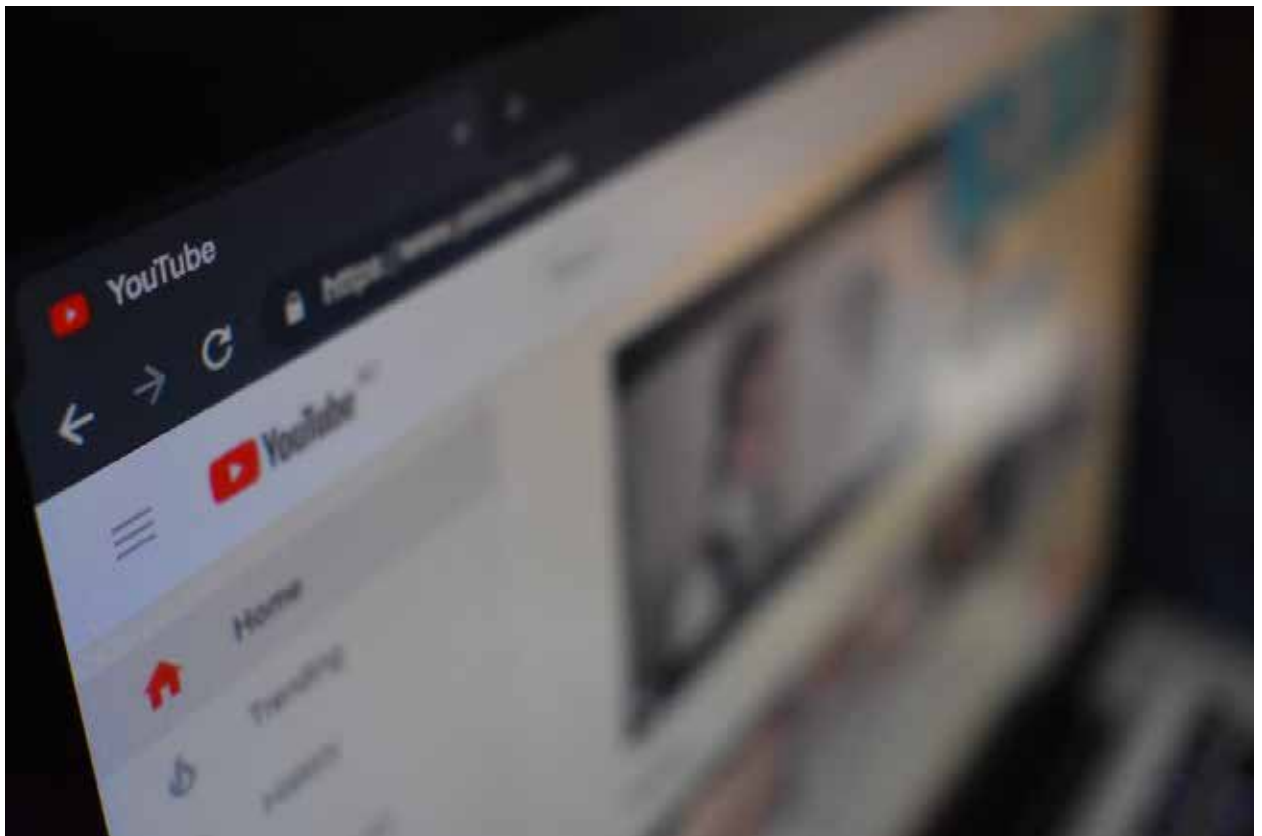
[Wikimedia Commons](#) is another repository of image and media files that can be used for free. While some of the works are CC0, others are licensed under Creative Commons CC-BY or CC-SA-BY licenses that require attribution. Every image in the repository is labeled with a license, and a link explaining what the exact terms of the

license are. When you click on an image to download it, the website will tell you if you need to attribute the author and give you an option to copy the attribution information.

Although the image repositories mentioned above are great, not all of them are easy to search with Boolean terms (“AND” or “OR”) if you have a very specific image in mind. So occasionally, it is helpful to search [Google Images](#) if you are having trouble finding the exact image you need. However, one thing to be aware of with a Google image search is that the images it finds are sometimes subject to copyright, meaning you are not allowed to reuse them without the permission of the image author. Once you are on the results page of an image search, there is a Tools button in the menu bar under the search box. Click on the Tools button, and one of the options you see is “Usage Rights.” The default setting is “Not filtered by license,” which means that some of the images in the results list might be copyrighted. However, if you select one of the other options, it will narrow the search to images that can be reused. Note that you will need to follow the attribution licensing requirements for these images.



*Changing the usage rights on a Google image search*



### 1.5.1.1. Best Practices for Using Video Online

By [Jill Zwylghuizen](#)

Incorporating video in your course can be a great way to help learners engage with the content. Creating your own videos is a fantastic way to enhance your teaching presence in the online environment. But the overuse of video does have some drawbacks. In this post we want to consider some suggestions for best practices in the use of video.

#### Video lectures for course content

Research shows that the optimal length of videos for student engagement is about 6 minutes or less ([source](#)). Beyond 6 minutes, student engagement drops off ([source](#)). If you have a longer video lecture, you might want to consider breaking it into smaller chunks.

One way to do that is to make your video lectures interactive by adding in questions. [Edpuzzle](#) is a free resource that allows you to cut videos to your desired length and also add in questions for your students to answer. It also gives you options to add a voiceover or a note to explain things to your learners.

Another way to make videos interactive is to break longer lecture videos into smaller videos, and then post each shorter video on a separate page of a Moodle Lesson. Then you can add in questions for your students to answer after each section.

#### Thinking beyond lecture videos

What is your purpose for using video in your online course? Are you primarily using video to transmit content? Or are you using video to enhance your teaching presence?

If your goal is to provide teaching presence through the use of video, here are some ideas of short videos you could create to connect with your students.

- Introduce yourself to students at the beginning of the course with a personal introduction video. You could also use the introduction video to share why you are passionate about the subject matter and highlight a few of the major assessments and key learning objectives of the course.
- Create a video introduction to the unit. Welcome the students to the new unit and explain one or two key learning goals for the unit. This is also a great time to remind them of any major assessments that are due in that unit.
- Use video to explain an upcoming assignment. Share the key components you will be looking for as you grade the assessment and point students to helpful resources.
- Give video feedback to assessments. After a major assessment (exam, essay, project) you may want to explain a few of the most common mistakes made by students and suggest resources for them to use to improve their understanding of those areas.
- Use video to summarize a class discussion at the end of a unit. If there has been a great conversation happening in the discussion forum during the unit, you might want to highlight the main points for students as a way to frame the discussion topic.

Remember to keep your videos short and engaging!





### 1.5.1.2. Alternatives to Video

By [Jill Zwylghuizen](#)

While video may be the first option that many of us think about using to create online lectures, there are actually many other options out there for communicating content to our learners. We will discuss a few of those options in this post.

#### Moodle Tools

Moodle offers several ways that you can share content with your students. One way is to upload a file (Word doc, PDF, etc.) for your students to download and read. This is a great option for articles, white papers, or even handouts you typically use in class. Tip: when you upload the file, there is an option in the settings to force download when students click on the link.

A second option is a Moodle Page. If you have a short amount of content to share, for example, a two-paragraph introduction to the unit, you can post that in a Moodle Page for your students to view. A Moodle page is also a great way to post a link to an outside resource (web article, TED Talk, etc.) along with a few comments from you pointing out the key points that you want your learners to pay attention to as they interact with the outside resource.

A third option is a Moodle Book, which is basically a linked series of pages. Moodle Books are a great resource to use when you want to write out the lecture content and organize it for your learners. Moodle Books have a navigation bar on the side where students can see the page titles and hierarchy (i.e. the Table of Contents). Once you have your first page of the book created, you can create subpages to go underneath it. Any time you have more than a few paragraphs of content, Moodle Books are a great way to share it.

A fourth option is a Moodle Lesson. Lessons are similar to Books in that they are a series of linked pages. Where they differ is that they also include the option to intersperse questions to the learners as they progress through the material. For example, after reading a page or two of content, you can include a true/false, a multiple choice, or an essay question that students have to answer before moving on to more new content. You can even direct which page students will see as a result of their answers to the objective questions. For example, you might want to direct students who get a comprehension question wrong back to the page that explains the concept, while students who get it right move on to the next page of new content. Moodle Lessons also offer branching capability if you are feeling very creative!

## Slidedocs

If you have been teaching in the classroom for a while and have lots of PowerPoints that you have used over the years, Slidedocs might be an excellent option for you to consider using for your online lectures. A Slidedoc is basically a standalone PowerPoint presentation that learners read through on their own. This means that you have to think about crafting it a bit differently than the PowerPoints you use while presenting. You do not usually want all of the text you are going to say out loud on the screen for a presentation, but for a Slidedoc, everything that you would have said to go along with your material needs to be included as text in the presentation. If you have a fairly comprehensive set of PowerPoint slides and know your material well, it doesn't have to take long to create a Slidedoc. You just need to read through and think about what is missing from it that you usually say out loud, and then add that text in. You might want to add those comments in as textboxes on the side in different color font from the main points on your slide. Tip: [Here's a free resource to help you get started with Slidedocs](#).

If you have extensive presenter notes written for yourself already, or if you have more extra content to add than you can easily fit on a slide, another option to consider is to create a PDF handout that incorporates the presenter notes section of PowerPoint along with your slides. PowerPoint gives you the ability to customize the look and feel of the handout page, so you can adapt the size of the slide and the layout of the content in the notes section.

## Infographics

If you have a lot of visual content (charts, maps, graphs, etc.) to share, infographics are another option to consider. [Canva](#) (a content creation program that offers a [free Pro account](#) to non-profit institutions) has lots of [infographic templates](#) to choose from. [Piktochart](#) is another program that with lots of [infographic templates](#) that make it easy to design content. (Piktochart offers their Pro account at a reduced rate to [educators](#) and [non-profits](#)).



### 1.1.1. Learning Activities



### 1.5.1.3. Moodle Books and Lessons

By [Jill Zwyghuizen](#)

Moodle lessons and Moodle books are two common ways for presenting written content to students. Both are useful for different purposes.

#### Moodle Books

Moodle books are a great option when you want students to be able to easily navigate through the material. Moodle books have a table of contents sidebar where students can see the titles of every page in the book and track their progress through the book. Students can also click on any of those pages and jump to that point in the book. Moodle books make it easy for students to return to the content at a later date and quickly find the point they were looking for.

Another benefit of Moodle books is that the table of contents allows for both headings and subheadings. Allowing students to see those levels of organization in the way the designer has arranged the content can be a teaching tool in and of itself.

One of the drawbacks of a Moodle book is that all it does is present content. Students do have to click through the pages, and various types of media in addition to text can be embedded (videos, images). But all they are doing in a Moodle book is reading and viewing, which are both passive forms of learning. One workaround to incorporate more active learning is to include a link that takes students outside the Moodle book to a more active type of learning activity (a quiz, a discussion forum, etc.).

## Moodle Lessons

Moodle lessons are a great option when you want students to actively engage with the material as they encounter it. Moodle lessons come with a built-in mechanism for asking questions, which can be used to break up the flow of new information. So, for example, you could present information about a topic, then include a comprehension question that students have to answer before they can move on to the next page of the lesson. If the question is an objective one (multiple choice, true/false, etc.), the question settings include a feedback option where you can tell students that they answered correctly, or explain why their answer is incorrect.

The questions also for branching. If students get a question correct, you can direct them to the next topic in the lesson. But if students get a question wrong, you could direct them to another content page that explains the problem in more detail, then you could give them another opportunity to answer the question correctly before allowing them to advance to the next topic.

Another reason you might want to use a Moodle lesson instead of a Moodle book is if you want to control the flow of information. For example, you might want the students to move through a subject sequentially rather than jumping around. Moodle lessons do have the option to turn on a table of contents sidebar (as in Moodle books), which allows students to navigate to later pages. However, that option can be turned off in lessons so that students have to advance through the lesson in order. When the table of contents sidebar is enabled, students can use it to navigate past question pages without answering them. Lessons come with a progress bar so that students can tell what percentage of the lesson they have already completed. The progress bar will not show 100% completion if students use the navigation features to skip past questions. (Note: in a lesson with branching options, students also may not see 100% in the progress bar if the lesson is constructed in such a way that they do not have to follow every branch.)

One of the drawbacks of a Moodle lesson is that it is not as easily accessible after the fact as a Moodle book. If students have completed a lesson and want to reopen it to look something up, they may not have the option to jump straight to the page they are looking for, depending on what navigation options are enabled.

Another drawback is that the table of contents feature in a Moodle lesson (when it is enabled) only allows for one level of headings—it currently does not support subheadings like the Moodle book does.

## 1.5.2. Communication



### 1.5.2.1. Video Conferencing for Meetings

By [Jill Zwyzhuizen](#)

There are many technologies we can use for communication these days. Email, texting, WhatsApp, SnapChat, Facebook, Twitter. The list goes on and on. In this post we want to highlight two video-conferencing technologies that can be used effectively for collaborative learning: Zoom and Google+ Hangouts.

[Google Meet](#) is a free web-based app that can be used to make voice and video calls. It also includes a chat feature. It is easy to add multiple people to a Google Hangout. The video call feature includes a screen-sharing option. Google Hangouts can be easily integrated with other Google tools. For example, if you set up a meeting with someone and send them a Google Calendar invitation, you can include a link to a Google Meet as part of the calendar item. (Depending on your Google Calendar settings, the link may even be included as a default.)

[Zoom](#) has both a free plan and paid options. The free account will allow you to host meetings with up to 100 participants for up to 40 minutes, with unlimited one-on-one meetings. Like Google Meet, it includes chat and screenshare features. Zoom allows you to divide into breakout rooms, which can be used to allow smaller groups of students to have a discussion. The 40 minute limit is a drawback to using Zoom meetings for group work in the free version.

These technologies can be used to encourage interaction between students and also between student and teacher. Teachers can make use of Zoom/Google Meet to hold online office hours. For example, a teacher could set up a recurring meeting in her Google Calendar from 8-9pm on Tuesdays for each week of her online class and invite



her students to the meeting. If a student has a question, he can simply click on the Met link anytime between 8 and 9 on a Tuesday night and join a meeting with his teacher.

Another way teachers can make use of Zoom/Google Meet is to hold an orientation session at the beginning of their online course. We recommend scheduling the orientation meeting on the first or second evening of the course. Online learners are busy people so it is usually a good idea to email your students at least a week before the course opens to tell them about the orientation session. Give them the date and time, and any instructions they might need about how to join the online meeting. If you are using Google Meet, it is possible to [record](#) the orientation meeting so that any student who is not able to join at the scheduled time can watch the recording later.

Zoom/Google Meet can also be used to encourage collaboration between students. Teachers can divide their class into small groups and ask the groups to meet to discuss a case study or talk through discussion questions or collaborate on a research project. The group members can then email each other to find a time when they are all available to meet. If the groups are working on an assignment together, you might want to allow one group member to submit the assignment on behalf of the whole group. If the groups are meeting to have a discussion, you might want to ask each group member to turn in a short summary of what they talked about.



### 1.5.2.2. Forum Subscriptions in Moodle

By [Jill Zwuyghuizen](#)

Moodle discussion forums are one of the primary ways that students interact with one another and with their facilitator in an online course.

There are several forum subscription settings that you need to know about as a course designer. Subscription to a forum means that you receive an email whenever a user posts to that forum. There is an option called “forced subscription.” If this is enabled, then all students are subscribed to the forum and will receive an email whenever someone posts to the forum. This is especially useful for News & Announcements forums where the teacher posts important course information and wants to make sure all of the students see it.

However, in a forum where lots of discussion is taking place, getting an email every time someone posts can be overwhelming. So there are other subscription modes that let students determine if they want to receive email notification about new posts or not. The “auto subscription” setting subscribes all students to the forum, but allows individual students to choose to unsubscribe (unlike forced subscription where there is no unsubscribe option). Or the teacher can choose “optional subscription,” which means that students are unsubscribed, but individual students can choose to subscribe if they wish. In both the auto and optional subscription options, students can choose to subscribe to an individual thread within the forum without subscribing to all of the threads.

If your students are new to taking online courses, it might be a good idea to set the early forums in your course to auto subscription so that students have the email reminder to

post to the forum and check in with the subsequent discussion. Then as they get acclimated to the online environment they can adjust their forum subscription settings to their personal preference.

One additional feature to be aware of related to forum subscriptions is that students can sign up for a “daily digest” email in their Moodle profile settings. Any student who signs up for this will receive a single email each day that contains all of the notifications from their course, including any announcements the teacher may have posted in a forced subscription forum. This means that there may be a delay from when the teacher posts the announcement to when these students see it in the daily digest email. If you are facilitating a course with students from multiple time zones, this could become a significant factor in the student-teacher communication.

[Click here for the Moodle doc overview of how forum subscriptions work.](#)

# Designing for Learning



The subject of learning is a varied and complex set of ideas. Good online course design seeks to connect appropriate learning strategies with intended learning goals. These resources can help you to grow in your understanding of how you might design different types of learning priorities in order to fulfill different kinds of learning goals. We have divided the Learning category into five subcategories:

- Understanding Learners contains posts that help us think more deeply about the learners we design for, including their differences and their readiness to learn, as well as principles of learner experience (LX).
- Understanding Learning contains posts in multiple categories about fields of study related to learning that are helpful for course designers: adult learning, self-directed learning, reflective learning, active learning, collaborative learning, transformative learning, and lifelong learning.
- Learning Pathways contains posts about course modalities, information architecture, professional development, as well as other types of learning pathways.
- Backward Design contains posts about the backward design process: writing objectives based on learning taxonomies, articulating evidence, developing an assessment strategy, creating a course blueprint, and designing an evaluation strategy.
- Developing Content contains posts about open educational resources (OER) and pedagogical strategies.

## 1.6. Understanding Learners

### 1.6.1. Learner Differences



#### 1.6.1.1. Multiple Intelligences

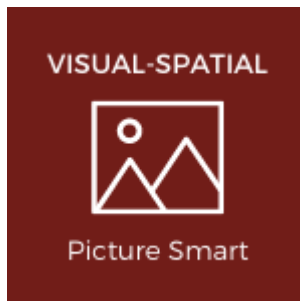
By [Horizon](#)

Good online course design seeks to create relevant, interactive learning activities that encourage engagement in the hearts and minds of our learners. The challenge for designers, of course, lies in connecting these learning goals to the unique motivations, preferences, and purposes represented in the wide array of learners who come into our courses. And although most learning management systems allow designers to differentiate learning to accommodate these differences, how could we ever customize the learning pathway enough to accommodate for every individual difference and preference?

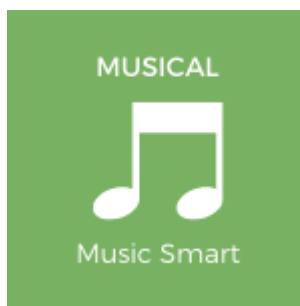
Horizon's response to this question is that you should not approach your design work in this way, as it would undoubtedly leave you and your students frustrated. What we have found helpful in addressing learner differences is what Howard Gardner refers to as creating multiple points of entry to understanding [14]. Gardner first suggested this idea as a practical response to his [theory of multiple intelligences](#). This theory was first published in 1983 and has gained considerable momentum across a spectrum of disciplines and industries. In essence, as the web resource points out, this theory posits that people have substantively different kinds of intelligence that lead them to approach learning and come to understanding in vastly different ways. Gardner identified eight unique intelligences that influence how we as learning designers can approach our learners.



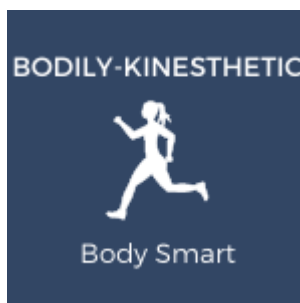
As you consider Gardner's Multiple Intelligences below, think about how you might design different points of entry into your subjects that could connect with individual learners who bear these qualities. Once again, it would be infeasible to design eight different learning pathways into the subjects we are addressing in an online course. However, leaning on Gardner's big idea, take a moment and think creatively about how you might leverage several of the categories below in building points of entry into your subjects at some point along the way in your course.



Visual-spatial intelligence often looks for meaning in visual representations like photos or art. Often in our Horizon courses, we will pick an image that may have a more subtle or nuanced meaning related to a subject. These subtleties in turn encourage learners with this affinity to ponder the possible connections between the selected picture and the material.



Musical intelligence finds meaning and generates emotional connection with learning via the varied genres, styles, and complexities of music. Incorporating meaningful videos produced with musical components, or music as cultural artifact connected with a subject, or at times allowing for expressions of learning via music can encourage engagement with musical learners.



Bodily-kinesthetic intelligence involves a learner using his or her own body to do an activity. Learners could create something with their hands and upload a picture of it to a forum or post a video of themselves practicing a skill or role-playing a response to a scenario. In these ways, the activity of touch or bodily action enhances engagement and even memory.



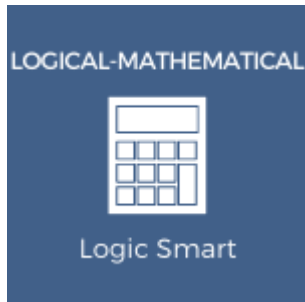
Interpersonal intelligence involves awareness of the emotions, desires, and motivations of other people. Collaborative learning activities like discussion forums, peer review, and group projects require learners to exercise interpersonal skills. Synchronous class meetings can also encourage engagement for interpersonal learners.



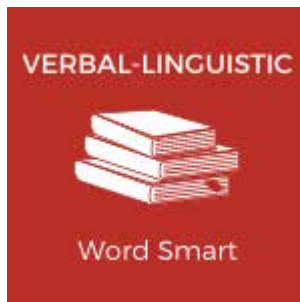
Intrapersonal intelligence involves awareness of one's own emotions, desires, and motivations. Learning activities that encourage reflection before, during or after learning, that prompt learners to evaluate an experience, or that encourage learners to ponder the very learning experience itself all encourage intrapersonal learners to engage in the learning task.



Naturalistic intelligence finds meaning through relating to the environment, making connections between natural objects like plants, animals, geology, etc. Designers can include images displaying the beauty of creation or even push learning into the environmental contexts of learners lives. For environmentally conscientious learners, going green online can be another motivational factor.



Logical-mathematical intelligence sees meaning in numbers, equations, and calculations. Logical learners are motivated to analyze or solve problems, look for patterns, or systemize ideas. Statistical or quantitative representations of data such as tables, charts, or graphs encourage engagement in the learning task.



Verbal-linguistic intelligence reflects the capacity to express one's thoughts using words. These learners appreciate complexity in language, enjoy word play, and are motivated by the expression of language in a both written and verbal formats.



### 1.6.2. Readiness to Learn

By [Rob Hayden](#)

**I am always ready to learn, although  
I do not always like being taught.**

WINSTON CHURCHILL

Churchill's quip reminds us that the work of teaching and learning is a little like a dance, subtly drawing together the capabilities, curiosities, and purposes of both teachers and learners. Pausing to explore this metaphor a bit further, we might say that if teaching and learning is like a dance, then course design is the work of selecting the venue, preparing the music, and setting the mood.

So, how then do we *set the mood* for learning in online course design?

One of the primary ways we set the mood for learning is by attending to our students' readiness to learn. A survey of the research on learning readiness reflects a wide array of subtleties hinted at in our metaphor, all of which can affect the willingness and capacity of a student to engage in the learning task. In examining this subject, we find it helpful to do so through the lenses of [adult learning](#), cultural differences, and [learner experience \(LX\)](#).

### Adult Learning

As noted in the link above, adult learners' *competence* and *margin* directly affect their readiness to learn. These categories suggest designers attend to learners' capacities to achieve the learning goals alongside the time and energy they have to devote themselves to the learning process. Thinking first about *competence*, we would

encourage you to evaluate your learners in respect to their *educational* and their *learning readiness*.

- *Educational readiness* describes a learner's prior orientation and preparation to successfully achieve the learning expectations within the learning systems you are using to accomplish your goals. Learners need to understand how to navigate and use your learning management system, as well as what your expectations are related to learning habits, workload, grading, credentialing, timely completion of learning requirements, and how to successfully complete the program of study.
- *Learning readiness*, on the other hand, reflects the nature of the learners' prior learning, their motivations to participate, and their capacities to successfully engage in the learning process. Diagnostic assessments can help teachers and learners attend to positive and negative learning experiences from the past and the learners' reasons for participating. In addition, assessing learning readiness enables designers to align and distribute the learning goals within a course and across the program, as well as create mechanisms that help faculty to [scaffold the learning experience](#) enhancing learner motivation.

Turning to *margin*, we recognize that adult learners are busy people, typically working outside of their coursework and often carrying significant family responsibilities. What this means is that designers should seek to accommodate adult learners by building flexibility into the learning process.

## Cultural Differences

It is important to recognize that adult learners reflect *cultural differences* that affect their readiness to learn. By culture, we mean shared ways of meaning making, communication, and praxis that vary by nationality, age, and gender in relation to social, economic and ethnic perspectives and which thereby impact the nature and success of learning. Thus, in addition to identifying your learners' typical starting points when they enter your course, it is also beneficial to identify ranges of difference, especially as it relates to cultural perspectives. At Horizon, we find it helpful to understand cultural differences as spectrums. Two useful paradigms are [Geert Hofstede's seminal ideas on culture](#) and [Erin Meyer's culture mapping](#). Identifying cultural priorities as spectrums allows designers to recognize areas of potential misunderstanding and miscommunication that can negatively impact a learner's readiness to learn.

## Learner Experience (LX)

Finally, we would encourage you to look for ways to connect your learning goals, activities and assessments to the goals, interests, and motivations of your learners. In this respect, the growing field of LX offers a fruitful space to explore how learner motivations affect their readiness to learn. As the link above highlights, Horizon organizes its design principles around three primary LX qualities in the learning experience, namely, learning that is *usable*, *useful*, and *desirable* in the mind of the learner.

- *Usability* seeks to guarantee that learning expectations are clear in the mind of the learner, easy to locate and engage, and accessible when the learner

has margin to engage in the learning process. We would argue that usability is an entry level LX quality that is necessary if a learner is going to participate and engage in learning tasks.

- *Usefulness* describes learning that is understood by learners to be relevant to and applicable within their real-world settings. Horizon would encourage you to consider how you might connect your learning goals and activities to the interests, aspirations, and experiences of your learners.
- *Desirability* reflects a design quality that awakens an emotional or affective response in the learner. Horizon organizes this LX principle around the ancient values of goodness, truth, and beauty. As you design your course, consider the intersection of its subjects with areas of ethics and justice (the good), the veracity and credibility of knowledge within your discipline (the true), and the artistry or aesthetics of your design (the beautiful).



### 1.6.3. Learner Experience (LX)



#### 1.6.3.1. Learner Experience (LX)

By [Rob Hayden](#)

Learner experience (LX) is a relatively new term for, and a narrowing of a field of study originally called user experience (UX). In LX, we consider how our design may impact the nature of the learning experience for the learner. Take a look at the following two-minute video from Don Norman, the designer who popularized the term UX in the 1990s while working for Apple.

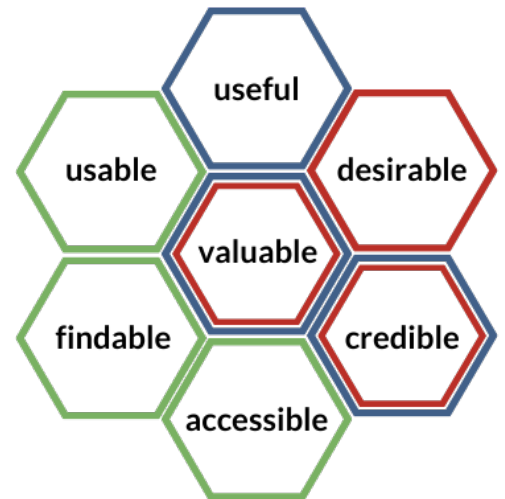
So how might we envision LX in online learning in the broader way that Don Norman spoke of UX? Take a moment and consider how the learning experience connected with your online course might integrate into the broader experience of the learner who is taking it. Here are a few questions to spur on your thinking:

- How will learners feel when they first begin to navigate in your course? Will it be clear what they need to do?
- Will they encounter any surprises in your course? Will these surprises encourage or discourage their engagement?
- How does what they are learning integrate within the learners' lives and work experiences? And how might you encourage this integration via your design strategy?
- Do you have feedback mechanisms envisioned for your course that will help you to hear from the learners about their experiences in your course?

A quick survey of the growing body of resources devoted to LX and UX reveals a variety of considerations we ought to keep in mind as designers of online learning experiences.

One of the frameworks often used to describe LX or UX came from Peter Morville who devised what he referred to as the User Experience Honeycomb. If you would like to read Morville's description of his thinking related to these categories, click on the image on the right.

Since Morville introduced these categories, a number of designers have reorganized them under a smaller subset of headings in order to simplify their design processes and strategies. We have chosen to adopt one of these simplified models and organize our LX strategies around Morville's top three headings. You can see that we have integrated Morville's other ideas as subcategories under these primary headings:



## Usable

(we include *findable* and *accessible* under this heading)

This term is generally applied to the ease of use for the learner in what we design. When learners come into your online course, will they be able to easily figure out what it is you are asking them to do? Will they be able to find what they are looking for and discern what they need to do to successfully achieve the learning expectations? Will learners with physical or cognitive impairments have the additional supports they need to achieve the learning goals?

## Useful

(we include *valuable* and *credible* under this heading)

Adult learners are chiefly concerned that the learning they engage will be meaningful in their work, ministries, or lives as a whole. They will want to know how the material applies to their current life situation or aspirations for the future. Will your course provide your learners with the practical knowledge and skills they believe they need in order to be more effective in their specific work or ministry? How will you convince them that your course will be useful to them in these ways?

## Desirable

(we also include *valuable* and *credible* under this heading)

Peter Morville claims that "our quest for efficiency must be tempered by an appreciation for the power and value of image, identity, brand, and other elements of emotional design" [1]. In addition to the aesthetics of your design, we would also add the dimensions of the ethics and veracity (credibility) of your design work. Does your course display the qualities of beauty, goodness, and truth that motivate learners to engage in the learning process?

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[1] Peter Morville, *User Experience Design* (Semantic Studios blog, June 21, 2004). Retrieved Oct. 2017 from [http://semanticstudios.com/user\\_experience\\_design/](http://semanticstudios.com/user_experience_design/)

## 1.7. Understanding Learning

### 1.7.1. Adult Learning



#### 1.7.1.1. Adult Learning - Part 1

By [Rob Hayden](#)

Although theories of adult learning seemed to blossom in the 1960s, at least in the West, leading to learning designations such as *formal*, *informal*, and *non-formal* [1], *self-directed* [2], and *andragogical* [3], researchers confess that “historically, there have always been an interlocking of adult learning needs with the social contexts in which they occur.” [4] This suggests that ideas surrounding adult learning have, in fact, stretched across times and cultures offering a rich array of perspectives and purposes related to this field of study. From a biblical perspective, we recognize the clear connection to adult learning in Jesus’ and Paul’s visions for disciple making (Mt. 28:19-20; 2 Tim. 2:2). Today, adult learning stands as an umbrella discipline encompassing a wide range of connections to other learning fields and priorities. So, how might designers make sense of this broad spectrum of ideas in their desire to create learning pathways that are conducive to adult learners achieving contemporary educational outcomes?

Horizon believes that learning designers should seek to *maximize certain connections* within the learning process *while attending to the unique educational purposes* undergirding these experiences. In these ways, designers can fit learning to the adult learners who are engaging in these opportunities.

#### Making connections with contemporary learners

Designers need to better understand the learners in their courses helping them make tacit connections between themselves and the subjects being taught.

1. **Connect outcomes with learner readiness, purposes, and priorities** – Horizon encourages designers to envision learner readiness in terms of *competencies* and *margin*. Adult learning theories suggest that learning should be [scaffolded](#) so that learners are challenged to engage in learning that builds upon previously acquired knowledge and competencies. Moreover, learning should be designed to account for the learner's margin [5], that is, the balance between the learner's life load (family, work and ministry responsibilities) and her/his power to fulfill the learning expectations. So, what would you say is the margin in the lives of your learners? Horizon would also encourage you to take the time to explore the purposes and priorities that undergird your learners' reasons for participating and their motivations for engaging in learning. These perspectives should inform the ways that you connect the learning outcomes with your learners' educational goals.
2. **Connect learning tasks with learner experience** – *First*, designers should seek to leverage the prior experiences of the learner within the learning tasks. This helps to engender respect for the learner while encouraging the formation of new learning connections in the mind of the learner. *Second*, designers should seek to put themselves in the shoes of the learner who will be experiencing the learning process—a growing field of study referred to as [learner experience \(LX\)](#). Drawing from Don Norman's thinking on user experience (UX), learning designers should design learning experiences that seek to maximize qualities that motivate engagement, such as those noted in Peter Morville's [UX honeycomb](#).
3. **Connect learning activities with real-world settings** – Adult learners are motivated to pursue learning outcomes that are explicitly tied to their lives, work, and ministries. Part of the designer's work is to exploit these connections by integrating these real-world settings within the learning pathway. Horizon encourages designers to consider how learning tasks and assessments might be freed from simulation in the digital classroom and liberated to places of authentic practice within the learners' lives. We recommend orienting learning around real-world domains such as complex contemporary problems, cultural and cross-cultural perspectives, and missional praxis within the learner's local context.

## Making connections in changing contexts

1. **Connect learning to the contemporary world** – Our world continues to change in significant ways impacting the very nature of the learning pathways we envision. Although the concept of [the VUCA world](#) is not new, the challenge associated with keeping online courses current is daunting. So, how might your learning design keep its fingers on the pulse of a changing world? One idea would be to design self-directed learning projects that require learners to explore and investigate these emerging realities in ways that connect with your learning goals. *For example*, an ethics course might require learners to find an ethical problem from a contemporary business setting around which they would be asked to generate a code of ethics and ethics training program that would remediate the problem. Learners would investigate resources that help them analyze the case and guide them in suggesting potential solutions, and then would present their findings and recommendations for faculty and colleague interaction and learning.

2. **Connect learning processes to disciplinary competencies** – As is true with the world, disciplinary understandings continue to change and develop over time. Horizon has found that it is in these spaces of development where disciplinary ways of thinking and behaving often provide fruitful places for design. Thus, on a basic level, we can ask questions like, “What does it mean to think and behave like a scientist? – or like an artist?” These kinds of questions help designers move beyond a design focus that gets exclusively caught up in the development of content. Instead, designers can begin to focus on specific skills and competencies that characterize a discipline, or the learning process that could enable learners to acquire these abilities and ways of thinking. In summary, adult learning encourages identifying learning processes that connect to the disciplines being studied, such as problem solving, or critical thinking, or adjudication, or working in teams, or identifying bias, etc.

## Making connections through learning theories.

Most, if not all, of the theories of learning depicted in this website intersect with theories on adult learning. As designers, you possess the opportunity to connect these learning theories to the learning tasks you design. How might you enable learners to leverage the ideas, practices, and relationships that inhabit these approaches to learning?

- [Self-directed Learning](#)
- [Experiential \(Active\) Learning](#)
- Dialogue Learning
- [Growth Mindset](#)
- [Transformative Learning](#)
- [Lifelong Learning](#)

Click here to read [Part 2 of Adult Learning](#) on learning design strategies.

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[1] Johnstone, J.W.C. & Rivera, R.J. (1965). *Volunteers for Learning: A Study of the Educational Pursuits of Adults*, Hawthorne, New York: Aldine de Gruyer.

[2] Tough, A. (1967). *Learning Without a Teacher*. Educational Research Series, No. 3. Toronto: Ontario Institute for Studies in Education.

[3] Knowles, M.S. (1968). Andragogy not pedagogy. *Adult Leadership*, 16(10) 350-352.

[4] Merriam, S. B., Caffarella, R. S., & Baumgartner, L. (2007). *Learning in Adulthood: A Comprehensive Guide* (3rd;3rd; ed.). San Francisco: Jossey-Bass, p.6.

[5] McClusky, H.Y. (1970). An approach to a differential psychology of the adult potential. In S.M. Grabowski (Ed.), *Adult learning and instruction* (pp. 80-95). Retrieved from <https://files.eric.ed.gov/fulltext/ED045867.pdf>.

[6] Pratt, D. & Associates (1998). *Five perspectives on teaching in adult and higher education*. Malabar, FL: Krieger.





### 1.7.1.2. Adult Learning – Part 2

By [Rob Hayden](#)

#### Learning Design Strategies

**Transmission** – Daniel Pratt and Associates (2005) [1] have identified five overarching approaches to adult teaching and learning that are also helpful for designers to consider. Perhaps the most familiar is the *transmission* perspective which focuses on the effective delivery of content. Although the value of this approach to learning is often vigorously debated, the subtle truth is that the excellent transmission of knowledge from one who has mastered a subject can be very helpful for certain kinds of learning goals. For example, most disciplines require the acquisition of basic and essential understandings for practitioners to be able to interact and function at more advanced levels. These disciplinary building blocks are typical in introductory levels of learning. Although this perspective is all too often overused in higher education today, designers should consider when the delivery of content knowledge is an essential strategy for certain components of your learning design.

**Apprenticeship** – One of the challenges in campus-based instruction is the limitation of not having the right environment to maximize experiential or situated learning. This is why some programs require residencies or guided field work. Online education has the advantage that adult learners can remain in their normal life, work, and ministry contexts. So, how might you design learning that pushes desired cognitive, behavioral, and affective learning goals into these real-world contexts? One way would be to establish parallel structures of local mentorship in which learners can practice, reflect upon, and receive feedback regarding their immediate practice of what they are learning. If mentorship is not possible, you could adopt a praxis learning model in which

the learner engages in a cycle of learning, practice, reflection, and dialogue. In these cases, apprenticeship is envisioned as taking shape through the activity of the online learning community and within the contexts of learners' real-world settings.

**Developmental** – Pratt and Associates (2005) argue that these next two strategies are “closely linked,” and that educators need “to operate from both to be successful in either” (128). The developmental approach focuses on building “a bridge from the curriculum-as-plan to the curriculum-as-lived by the learners”

(134). The design focus surrounds helping faculty bridge individual gaps which separate the learner from desired growth and learning. Although it may not be within your purview to help faculty acquire *bridging skills*, you can generate diagnostic feedback mechanisms that provide learner feedback to faculty so that they will better understand the starting points of the learners in their courses. Designers can also work with subject matter experts in designing self-assessment tools for learners to self-diagnose areas of desired development.

**Nurturing** – As with the developmental approach, the nurturing approach rests predominantly on the role of the teacher in the learning experience. In simple terms, the nurturing approach seeks to cultivate the educator-student relationship while helping learners gain confidence and nurturing a [growth mindset](#) in the learner. From a design perspective, consider expanding beyond a performance-based only approach to learning, which simply focuses on the outside evaluation of the teacher, to a competence-based approach, which also focuses on internal evaluation by the learner. Consider incorporating [reflective learning](#) activities and integrative application assignments that ask learners to make sense of their learning in personal ways. Consider how an introductory “get-to-know-one-another” activity might allow learners and teachers to connect personally in ways that also connect with the learning goals.

**Social Reform** – Although the social reform approach reflects a diverse set of beliefs about the purposes and pedagogies of teaching and learning, most would generally hold to the notion that the goal of teaching is to foster the creation of a better society or world. Designers utilizing this approach would seek to devise learning activities which foster [collaborative interaction](#) around action-oriented, social engagement. From a biblical worldview, this could mean designing learning opportunities that seek to empower local groups to engage in missional ministry. It could also mean designing debriefing opportunities where online learners dialogue around their experiences in putting specific learning goals into practice within their local contexts. Thus, the learning goal would be to foster authentic dialogue in which learners and teachers encourage and assist one another in the pursuit of real-world solutions to real-world problems.



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[1] Pratt, D. & Associates (1998). Five perspectives on teaching in adult and higher education. Malabar, FL: Krieger.

## 1.7.2. Self-Directed Learning



### 1.7.2.1. Self-Directed Learning (overview)

By [Rob Hayden](#)

Self-directed learning (SDL) has gained significant momentum as a design priority across the varied educational landscapes, today. Although this growth has been driven in part by the significant numbers of adult learners entering formal learning programs, it is perhaps most directly connected with the unprecedented, contemporary need to help learners gain capacity as life-long learners. Never before have global work and life environments experienced such rapid, persistent and volatile change. It is for this very reason that SDL has moved to the frontiers of learning both in the classroom and online.

Although SDL as an educational concept can be traced back at least to the time of the ancient Greeks, more modern, formal uses of SDL came into practice via the writings of Malcolm Knowles in the 1970s. One of the key ideas in Knowles' definition was the desire to see students "take the initiative" in their own learning [1]. Since that time, SDL has expanded to include the value of collaboration and guidance in the self-directed learning process, evolving into an array of perspectives under titles such as *Self-Initiated Learning*, *Self-Managed Learning*, and [Self-Regulated Learning](#). As designers of online learning, it is helpful to consider Merriam, Caffarella, and Baumgartner's (2007) suggestion that the growing literature on SDL be divided into three main categories: [2]

1. The goals of SDL
2. SDL as a process or approach to learning

SDL as a personal attribute in the learner

We will not take the time to explore the range of possible “goals” or outcomes associated with SDL except to reiterate the strategic value in approaches to learning that orient themselves around the traits and preferences of adult learners and toward the development of capacity in life-long learning. Thinking practically about how online learning designers might create meaningful and engaging learning within an online course, we have organized SDL ideas and resources into three subsequent webpages:

## SDL Skills

The [SDL Skills](#) page is organized around the subjects of professional development and personal growth, skills that are desirable as outcomes in learners’ and teachers’ lives, alike. These important capacities and mindsets engender real-world skills that are essential in what Bob Johansen describes as the global “VUCA” (*volatile, uncertain, complex* and *ambiguous*) environment in the work workplace, today [3].

## SDL Learning Processes

The goal of SDL in online learning requires focused attention on the processes of learning as well as the subject matter. The [SDL Learning Processes](#) page is organized around strategies for scaffolding learning activities and assessments that lead to the competency of life-long learning. This page also explores the question of how learners acquire the ability to effectively evaluate the quality and validity of an ever-expanding flood of resources available today.

## SDL Resources

The [Open Educational Resources](#) page highlights the subject of open learning alongside examples from the growing assemblage of open educational resource (OER) repositories available for use today. These resources offer examples and ready-made components that can be leveraged for more quickly scaling the design process.

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[1] Knowles, M. (1975). *Self-directed learning: A guide for learners and teachers*. New York: Cambridge Books, p. 18.

[2] Merriam S., Caffarella R., and Baumgartner L. (2007). *Learning in Adulthood: A Comprehensive Guide* (3rd ed.). San Francisco: Jossey-Bass.

[3] Johansen, B. (2017). *The New Leadership Literacies: Thriving in a Future of Extreme Disruption and Distributed Everything*. Oakland, CA: Berrett-Koehler.





### 1.7.2.2. SDL Skills

By [Rob Hayden](#)

In his forward to the book *Scaling Leadership*, Ed Catmull, President of Pixar Animation and Disney Animation paints the following picture of his work:

**So much disruption; so little time. Not only are organizations expected to provide great products and services, but to do so while the landscape is shifting and quaking. For those of us leading, it's both scary and thrilling. It is our job to lead our teams into these great challenges. I don't know about you, but I'm in over my head, and I need help. [1]**

ED CATMULL

Your online design can offer one pathway in the development of SDL skills for emerging leaders who will be facing these kinds of challenges. Thus, as you envision the creation of such a learning pathway, consider how contemporary professional development initiatives and the growing research on what it takes to cultivate a growth mindset might help you in this process. Consider which SDL skills might be essential for the learners engaging your online course.

## Professional Development

Exponential growth in areas of knowledge, information and communication technologies, global mobility and inter-cultural exchange of ideas has heightened the recognition of the priority of SDL. Increasingly, employers and educators alike are



realizing that formal education must adapt, focusing today on the learner's abilities to learn on their own and in community, outside of and upon the completion of formal educational programs. Workplaces today are [strategizing ways to promote SDL](#) within their corporate practices in order to effectively address these global challenges. The same is true for educational administrators today who are designing strategic [professional development initiatives](#) for their faculty. How might you design your course to encourage learners to take ownership of their own professional development? Perhaps the biggest takeaway from this growing set of priorities is the realization that we need to listen well to those stakeholders for whom we are credentialing learners. What SDL skills would these places of employment and service recommend that we adopt in our educational strategies?

## A Growth Mindset

Over a decade ago, a group of educational researchers began exploring a phenomenon that has been called “the growth mindset.” These promising studies reveal that learners who perceive that their mental abilities can be developed perform better than those who do not. Carol Dweck has conducted numerous studies that reveal the importance of a growth mindset over a fixed mindset. These studies reveal that cultivating a growth mindset requires more than simply encouraging effort and motivation in the life of the learner. It turns out, a growth mindset is correlated with a learner's familiarity with new learning strategies and with the communication strategies of the teacher. Eduardo Briceño, a colleague of Dweck, advanced these concepts, applying them to areas like the [workplace, personal relationships, and even character development](#). In these studies, Briceño offers evidence for how the [power of belief](#) can significantly influence success in learning.

So what can we do as online learning designers to encourage the development of a growth mindset in the hearts and minds of the learners taking our courses? One idea is to focus on developing [specific skills that lead to a growth mindset](#) in the learner. How might these learning priorities be incorporated into the learning activities and assessments in your course? And how might your design [scaffold the learning experience](#) so that learners grow towards the exemplary category in these descriptions?

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## Sources

[1] Anderson R. and Adams W. (2019). Scaling Leadership: Building Organizational Capability and Capacity to Create Outcomes that Matter Most. Hoboken, NJ: Wiley, forward.



### 1.7.2.3. SDL Learning Processes

By [Rob Hayden](#)

One positive consequence of the growth of SDL in contemporary educational settings has been a refocusing on the processes of learning rather than simply its content. Theories of adult learning and transformative learning have long espoused this attention, and yet at the level of educational practice, SDL has helped educators envision practical approaches which lead to these broader outcomes. As designers, these strategies for constructing learning pathways immerse as ways to foster SDL as well as to evaluate student capacities and progress toward these goals.

### Fostering SDL

[Open Educational Resources](#) (OER) are a growing set of resources that can be useful in devising strategies that foster SDL in the lives of our learners. One particular, open online journal is directly connected to SDL, the [International Journal of Self-Directed Learning](#). One synthesis of the literature on SDL by Gregory Francom from this journal is helpful to this discussion. Francom's (2010) article entitled, "[Teach Me How To Learn: Principles for Fostering Students' Self-Directed Learning Skills](#)" offers an evidence-based set of incremental principles for designing SDL within a formal course or program (see pp. 32-38).

Francom argues that the empirical literature on SDL organizes around four main, incremental strategies that learning designers can leverage to encourage the growth of SDL among their learners:

1. Match the level of self-directed learning required in learning activities to student readiness.
2. Progress from teacher to student direction of learning over time.

3. Support the acquisition of subject matter knowledge and self-directed learning skills together.
4. Have students practice self-directed learning in the context of learning tasks.

The first strategy encourages the use of [diagnostic](#) tools within online courses and programs to carefully evaluate student readiness for specific SDL tasks. It also suggests intentional [scaffolding](#) in matching student readiness with appropriate tasks, which is a pedagogical competency that may need developing among your organization's faculty.

Strategies two and three require broader course and program structures that are carefully aligned and distributed across the learning pathway. Again, the literature suggests that these design decisions hold tremendous promise for cultivating [SDL skills](#) in the learner.

Finally, Horizon recommends adopting a praxis model in the development of SDL capabilities in the lives of your online learners. This model suggests a cyclical and ascending learning pathway that moves from learning to practice to reflection to dialogue. The trick in the classroom is to find ways to move beyond mere simulation to authentic, real-life practice, such as is the case in apprenticeships. The trick online is to find ways to connect the advantage of real-life applications of learning to credible evaluations of those experiences. The challenge for both online learning and the classroom then is to envision how learning designers might push learning goals into the contexts of the learners' lives and ministries.



## Evaluating SDL

The four SDL strategies, listed above, raise questions as to how teachers might assess or evaluate SDL in an online course. Creating a [rubric of SDL skills](#) is one way to envision the evaluation of SDL. Other hierarchies more clearly connected to [affective learning goals](#) are also helpful as we look for ways to assess the growth of student motivation in taking responsibility for their own learning. Finally, the creation of local partnerships and mentorship structures as a parallel track in online programs is another way to envision the effective evaluation of these kinds of educational outcomes.

Thinking about evaluation from another angle, we recognize that the flood of information available via the Internet today requires that we evaluate how this complex learning environment will impact the learners in our courses. What evaluation or curation skills do learners need to [effectively evaluate the quality and validity of Internet resources](#)? How will your programs or secondary training opportunities help learners acquire these new competencies?

### 1.7.3. Reflective Learning



#### 1.7.3.1. Reflective Learning

By Jill Zwylghuizen

Reflective learning is a crucial component of [adult learning](#), [self-directed learning](#), [transformative learning](#), and [lifelong learning](#). But it is also a field of study in its own right. The value of reflective learning is that it can lead to learning transfer and deeper learning as learners engage in sense making.

There are a variety of ways to practice reflective learning in an online or blended course. We can invite learners to reflect on content, application, or experience. There are also a variety of learning activities that we can use to encourage reflection.

#### Reflecting on content

Sometimes we introduce students to content in our courses because we have [affective goals](#) for them. Perhaps we want students to respond to the material or internalize a set of values. One way to do that is to ask students to write a reflective paper or reflective journal. For example, students in an entry level course on Mosaic Literature are asked to write a series of reflective papers based on writing prompts that ask them how they would have responded if they had been a character in the story. For many of these students, it is the first time they have read the stories in the Pentateuch. The papers provide an opportunity for them to identify with the characters and come to see the story as something that is relevant to their lives today—something they can learn from.

We can also utilize reflection on content as a way for students to self-assess their understanding of the course material. We might ask students to reflect on what they are learning in the course and identify any areas they are struggling to understand or have questions about. These types of reflective assignments may not be part of our graded



assessment strategy for the course; if they are graded at all, it might be as credit/no credit. Instead, self-assessment offers the student an opportunity to reflect on their own process of learning and evaluate the progress they are making toward their learning goals.

## Reflecting on application

If we have [behavioral goals](#) for our learners, we likely want to give them an opportunity to put those skills into practice. The praxis model gives us a way to think about learning new skills that incorporates reflection as well as dialogue. Without dialogue as part of the process, students could learn a skill, practice it, reflect on it, and begin to form bad habits. Dialogue is where the teacher can correct any mistakes so that students are practicing the skill correctly. It's not that "practice makes perfect," but "perfect practice makes perfect."



Dialogue may be between the teacher and the learner, but it may also be between learners. In a counseling course, students might be asked to role play a counseling technique and then dialogue with a partner or small group about the role play. What did they observe during the role play? What did they learn from doing it? What ideas do they have for how to improve next time?

## Reflecting on experience

**Reflecting on** – One of the characteristics of adult learners is that they bring a wealth of prior experience to the learning process. We can use reflective learning activities to invite our adult learners to reflect on their life experience and connect it to the learning activity. One way to invite these kinds of reflections from our learners in an online class is through the use of discussion forums.

**Reflecting in** – One of the benefits of online learning is that it affords us the opportunity to push learning into the learner's life and ministry context. We might encourage learners to participate in practical ministry experiences as part of their course work, and also encourage them to build in moments for reflection during those experiences. Experienced teachers make use of [formative](#) feedback to adapt their teaching strategies to the needs of the learners. We can help our students begin to cultivate that skill by encouraging them to pause and reflect periodically on how well their own strategies are working as they engage in ministry.

**Reflecting after** – If learners are involved in these kinds of practical ministry experiences, we also want to encourage them to reflect on them afterward in the online class. These reflections could take the form of a reflective journal where the student processes through the experience and the teacher can give feedback. Another option is to have students reflect on their practical experience and share those reflections with other learners in a discussion forum, thus forming a community of practice.



## 1.7.4. Active Learning



### 1.7.4.1. Active (and participatory) Learning

By [Jill Zwylghuizen](#)

Active learning, also known as participatory or experiential learning, is a field of study with links to several other types of learning. In active learning models, students are active participants in the process of learning, as opposed to passively listening to a teacher lecture. In the face-to-face classroom, this can take the form of small group discussions or role play exercises. Yet we highlight that active learning in the classroom is learning that involves simulation. Counseling students can role play various therapy techniques, but that is quite different from counseling a client in real life.

We would suggest that online education actually has an advantage over the face-to-face classroom when it comes to active learning. Rather than being situated in a simulated classroom environment, online learners are situated in their own life and ministry contexts. This affords a great opportunity for course designers and teachers to create ways to push learning into real life contexts. Students in a pastoral ministry training program can continue to minister in their local church while they take online classes and can put the skills they are learning into practice immediately in an authentic environment. As they learn homiletic skills, they can apply them by teaching in their local church rather than by preaching in a classroom.

The challenge with for the online teacher when learning is pushed into life and ministry contexts is how to assess that learning. One possible solution is to pair students up with a local mentor who can give them feedback on the skills they are developing. A mentoring or apprenticeship model has the advantage of immediate feedback by someone in the local environment. The mentor could also provide report to the teacher and participate in evaluating the student's learning.

Online learning also affords the opportunity to restate experiential learning as reflective practice. This connects active learning with [reflective learning](#) and [lifelong learning](#). Students reflect on their learning experience in their local ministry context and then bring that reflection into the online community. This could take the form of reflective journals or even reflective discussion forum posts where all of the online learners can share their experiences and learn from one another, creating a community of practice. Reflective learning is thus a crucial component of active learning in the online classroom.

## 1.7.5. Collaborative Learning



### 1.7.5.1. Collaborative Learning

By Jill Zwylhuizen

Collaboration is a component of many forms of learning: [adult learning](#), [reflective learning](#), [active learning](#), [lifelong learning](#), etc. One method of collaborative learning that works well in an online context is problem-based learning (PBL). In problem-based learning, small groups of learners work together on a “messy” case study with more than one possible answer. The case study should be as real-to-life as possible so that students have to wrestle with complexities and multiple potential outcomes.

Problem-based learning is ideal for developing problem solving skills that can be translated to real life situations. There are four phases of the PBL method: problem development, inquiry and investigation, solution, and debriefing performance. Learners are divided into groups, usually of about 4-6 people. The group is given a scenario and must define the problem, decide what areas need to be researched, and then divide the research tasks. [Self-directed learning](#) is thus a significant part of the process. The learners then share their research results with each other and collaborate to determine the best approach to solving the problem. [Reflective learning](#) is also part of the process as students reflect on and evaluate the group learning process in the debriefing stage [1].

In an online classroom, the problem-based learning approach can be facilitated in a variety of ways. Each group can be given the autonomy to determine their own method(s) of meeting together and collaborating. Several tools that work well are a non-graded discussion forum for each group to use to communicate with one another about the project. Video conferencing options such as Google Meet or Zoom are useful for the initial group meeting to define the problem and assign areas of research, as well as to discuss the research and discuss a solution. Google Docs and Google Sheets are both

excellent tools for groups to collaborate and share their research with one another. Any group member can add notes or links to articles to a Google Doc, which are then visible to all the other group members. If groups are expected to present the results of their work at the end, Google Docs or Google Slides both offer collaborative editing options on the final paper or presentation.

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### 1.7.6. Transformative Learning



#### 1.7.6.1. Transformative Learning

By [Rob Hayden](#)

Although ideas surrounding *transformative learning* within formal academic settings have traditionally been associated with Jack Mezirow's theory from the 1970s [1], the idea of learning that leads to life and vocational transformation has been a hallmark of theological education for millennia. In the Christian faith, for example, we encounter Paul's use of the Greek concept of transformation (*metamorphao*) to convey this transformative learning process and goal in the lives of adult believers ([Rom. 12:2](#); [2 Cor. 3:18](#)). Thus, in the eyes of both ancient and contemporary theorists, transformative learning is envisioned as a kind of learning that does more than simply extend the learner's understanding into new informational domains. Transformative learning is connected rather with dramatic changes in self-understanding and worldview which mark a new trajectory in the way in which learners live their lives.

So, how might designers craft learning experiences that facilitate life and ministry transformation in the lives of learners? James Smith suggests that an answer to this question can be found in the everyday practices and habits of life which cultivate our affections. Smith argues that it is our affections which ultimately impact what it is that we love, which in turn drives our behavior and our worship [2]. With these thoughts in mind, Horizon encourages designers to think in terms of holistic learning goals which focus on engaging the minds, hearts, and spirits of learners in regular habits which hold promise for desired life, work, and ministry transformation.

#### Re-Forming Habits

**Habits of the Mind** – Unfortunately, our familiarity with cognitive learning goals often reinforces certain inherent problems with how designers approach course



development. The temptation is to simply focus on identifying content that learners need to accomplish specific learning objectives. However, what is more significant to long-term learning is how learning designs may influence a learner's *ways of thinking*. It is habits of the mind that offer the promise of helping learners meet unanticipated challenges they will face in the changing world in which they live, work, and minister. Contemporary research suggests a variety of these habits that hold potential to impact learners in transformative ways:

- [metacognition](#)
- [self-directed learning](#)
- critical thinking or problem solving
- [reflective practice](#)
- [life-long learning](#)

How might your learning activities cultivate one or more of these ways of thinking? Or, how might your learning design put your learners on a trajectory of learning that could enable them to grow in their abilities to [analyze, evaluate, or even generate](#) new knowledge? [3]

**Habits of the Heart** – Mark Schwehn has argued convincingly that contemporary academic models for higher learning in the West have comprehensively adopted the German research ideals of Max Weber, which confine education to the rational mind [4]. In so doing, we have abandoned our attention to the affective domain in learning, defining our educational goals simply in terms that can be scientifically measured. Unfortunately, our complete focus on the cognitive domain (even in theological education) has moved us away from what had been a foundational element in education before the 1900's, namely, moral or character education. In theological education, we must ask whether our learning designs chiefly promote the acquisition of various bodies of knowledge rather than cultivating learning processes that form or re-form our learners' love of God and their commitment to accomplishing his mission in the world.

How might you create space in your learning design for cultivating habits of the heart that lead to life and ministry transformation? Take a look at the linked [affective taxonomy](#) adapted from Krathwohl, Bloom and Masia [5]. Consider how your design might move your learners from a willingness to receive (or listen to) the affective values you hope to instill, to actually internalizing these priorities within their own value systems. How you might make use of these ideas in building affective learning goals for your course?

**Habits of the Hands** – Today, higher education uses the term *competency* to communicate a variety of ideas. However, at its core, the term competency refers to abilities or traits that enable one to perform certain expected roles and responsibilities. One example of competencies comes from a [2016 international study on leadership](#) in which a top-ten set of competencies was organized into five overarching leadership themes. As you think about the intended competencies that are expected of your learners by the end of their programs, are there ways in which your learning activities might provide opportunities to *practice* these broader outcomes in your course? Take a look at the linked [behavioral taxonomy](#) adapted from Dave [6]. How might your learning design help learners move from one behavioral level to another such that they could eventually habitualize or master certain behavioral skills?

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## 1.7.7. Lifelong Learning



### 1.7.7.1. Lifelong Learning

By [Rob Hayden](#)

Educational theorists like Sir Kenneth Robinson have long called for a *learning revolution* that would better equip learners to live and work in our modern world. The challenges of new technologies, the information (or knowledge) economy, and decline of career employment have all pressed educational organizations to innovate as they seek to prepare learners to navigate such tumultuous waters. Today, many educators are speaking of a *third education revolution*, a re-envisioning of learning that would help to cultivate a capacity for and commitment to lifelong learning among learners today. Our question for you is, how might you design learning pathways in your course that could fan the flames of your students' motivations to learn while also working to habituate skills that lead to such a mindset?

Dan Pink is one among several researchers who have identified a set of qualities or characteristics that tend to engender motivation among adult learners. Pink argues that the research on motivation encourages a three-fold design focus, namely, *autonomy, mastery, and purpose*.

### Motivation

**Autonomy** – Adult learners demonstrate motivation to learn when they are given degree of autonomy in the learning process. This in fact, has been a driving factor in much of the growth around the field of study called *Self Directed Learning* (SDL). SDL encourages designers to consider how the learning pathway might be individualized, that is, organized around a unique learner's readiness to learn, personal learning goals, experience, and areas of interest. SDL also encourages pedagogies that leverage

community-based learning where peer-to-peer as well as peer-to-teacher learning are emphasized.

**Mastery** – Adult learners demonstrate motivation to learn when they have opportunity to pursue mastery in areas of interest. Too often, learning designs focus on discreet knowledge objectives rather than on the growth of cognitive, behavioral, and affective habits in the lives of learners. In the design process, take time to articulate learning goals that reflect ways of thinking, praxis, and character development that connect with the disciplinary priorities upon which your course is founded. As you envision pathways that lead to these long-term outcomes (habits of the mind, habits of praxis, and habits of character development and ethical living), build opportunities to practice these priorities in incremental ways that lead to growth. Secondly, look for opportunities to cultivate the development of a [\*growth mindset\*](#) in your learner. Scaffold opportunities for learners to progress in their belief that they can learn and grow in these ways.

**Purpose** – Adult learners demonstrate motivation to learn when they envision their learning as connecting with a meaningful or transcendent purpose. From its inception, lifelong learning as a field of study has sought to communicate the message that *learning is life* [1]. Connecting significant purposes to specific learning goals and activities can generate powerful motivation to engage and even excel in such tasks. Moreover, finding ways to integrate this learning within real-world problems, settings, and experience can enhance learner motivation by encouraging deeper transfer of learning to areas that matter to the learner.

## Design Priorities

**A Learning Ecology** – As designers, we must recognize that learning does not need to be trapped within the formal learning setting but can be viewed as connected and integrated across the multiple sets of contexts in a learner's life [2], whether physical or virtual. In this model, learning may be connected by the designer to the learner's broader ecosystem, whether at home, in local communities, with peers, at work, in school, and through other social and resource networks. All these contexts suggest places in which to situate, connect, and integrate learning.

**Lifelong Learning Processes** – Traditionally, formal education has only focused attention on one (#3 below) of five social learning processes which have been identified as inherent within lifelong learning models [3]. These are:

1. Forming a learning identity and purpose
2. Developing learning power
3. Generating knowledge and know-how
4. Applying or performing learning in authentic contexts
5. Sustaining learning relationships

How might your course design focus attention on more than just the third social learning process?

**Lifelong Learning Value Rubric** – The Association of American Colleges and Universities has created a rubric that articulates a progression of five dispositions / skills that lead to lifelong learning. The rubric is scaffolded across four sets of criteria leading from an initial benchmark to a capstone level in each of the following dispositions/skills:

1. Curiosity
2. Initiative
3. Independence
4. Transfer
5. Reflection

Horizon would encourage envisioning #3 as also encompassing interdependence, that is, an independent commitment to sustain and grow from learning relationships. If you are a Horizon partner, you can access the rubric via [Horizon's Moodle Resources](#). If you are not, you may see a preview and request a copy of this document via the [AACU website](#).

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## 1.8. Learning Pathways

### 1.8.1. Modalities



#### 1.8.1.1. Course Modality Paradigms

By [Horizon](#)

Although the name of this website is *Designing for Online Learning*, the principles of online course design can be applied in courses that are not conducted fully online. Here are three [course modalities](#) that make use of online components to the course.



The first modality to consider is the traditional classroom where teacher and students meet together in the same physical space. Horizon distinguishes the Technology-Enhanced paradigm as the mode where less than 10 percent of in-class time is conducted online or mediated via technology. However, a teacher might want her students to make use of electronic copies of course documents or other online resources like articles or videos. She might also want to encourage her students to collaborate with each other using

online tools like discussion forums or Google tools (Docs, Slides, Sheets, etc.) as they work on a group project. Or, a teacher might want her students to take quizzes or submit papers online so she can grade them digitally and her students have access to a digital grade book. A learning management system can effectively enhance a face-to-

face classroom by providing a repository for online resources, a place for students to collaborate, and a way to facilitate digital grading.



The second modality to consider is a blended classroom where between 10 and 90 percent of the class time occurs online and the rest of the class time occurs with the teacher and students meeting in the same physical space. There are many reasons why a teacher might choose to utilize a blended paradigm for a particular course. One reason is to provide greater flexibility to the learners. This might be a compelling reason if the learners are adults with busy work schedules, or if the learners have long commutes to campus. Another reason a teacher

might choose a blended model is so that she can leverage the strengths of both online and face-to-face models as she designs the course. Another reason to choose a blended model would be if a teacher is using a flipped classroom approach where the instructional material is delivered online and the face-to-face classroom time is focused on application and integration of the course material.



A third modality is the online classroom. In this scenario, at least 90 percent of in-class time is conducted online or via technology. This could be a fully online approach where all instruction, coursework, and support is provided online. But there are also online approaches that include limited local support. This might be a case where students come to campus to use a physical library or other student resources, but the primary teaching and learning occurs online. Other online approaches include a separate mentorship track where the student

may be remote from the physical campus, but is connected with a mentor who meets with the student periodically to track his progress as he moves through the program.

Although we have described these three modalities as choices that can be made for each course, it is also possible to think about programs that are characterized by these three modalities. There may be programs that are fully face-to-face or fully online. However, it is also possible for programs to include courses drawn from more than one of these paradigms. A well-designed program will take into account the strengths and weaknesses of each modality to determine which courses in the program would be best served by each modality.



### 1.8.1.2. Blended Learning

By [Jill Zwylghuizen](#)

Blended learning combines traditional face-to-face instruction with online instruction in a more robust way than simply adding a learning management system (LMS) like Moodle to a face-to-face course. In blended learning, some of the time that would otherwise have been spent in the classroom is now spent online.

**Blended learning means respecting the true value of conventional methods – such as seminars, tutorials, projects, labs, field trips, physical materials. And it means acknowledging the extraordinary power and flexibility of digital technologies. How can the two be thoughtfully integrated to give education the power and flexibility it needs in order to play its proper role in 21st century life? [1]**

DIANA LAURILLARD

Blended learning can take a variety of formats. In a flipped classroom model, students study the course material online and come into the physical classroom periodically to focus on application of the material. The classroom time becomes more of a laboratory to put what they are learning into practice. In a counseling course, this might look like

reading about the theory and watching a video of a specific counseling technique online, then coming into the classroom to role play that technique with another student and then discuss the role play. The classroom time is not primarily about lecture; instead it might include discussion, role play, group activities, or student presentations.

Another blended learning model is where students come to campus for a short period of time for several intensive face-to-face sessions, but then complete the rest of the module in an online format. For example, students might come to campus for evening sessions during one week, but then spend the next seven weeks reading, participating in discussion forums, and submitting papers online. The face-to-face component might or might not be the first part of the course; students could also do some preparatory reading in the weeks leading up to the face-to-face time.

Blended learning models are quite flexible and can be used to make learning convenient for both the faculty and the students. If a faculty member is available to teach during seven of the eight weeks that a course is scheduled to run, but has to be out of town at a conference during the eighth week, a blended learning approach could mean holding face-to-face sessions for seven weeks and running the eighth week online.

Although it is possible to make decisions about what learning activities will be done face-to-face and what activities will be done online based simply on what is most convenient, the best blended learning occurs when course designers and teachers think strategically about the strengths and weaknesses of each modality and chose the modality that will maximize student learning. Some topics may be so complex that the teacher prefers to explain them in person when she can see if her students are struggling to understand. Other topics may be easier to understand and students could easily read about them online to save class time for application. Some topics may be better to discuss in person, for example, if students are going to debate two sides of an issue. Other topics may be better to discuss in an online forum so that all students have a chance to contribute. There is no back row in an online forum! Some skills are simply easier to evaluate in person—giving a speech to a live audience in a classroom is a different skill than giving a speech to a webcam. The key is to think through each of the learning activities and decide if it would be better handled during the face-to-face time or better handled during the online time and to plan the blended course accordingly.

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[1] Diana Laurillard, "Thinking about blended learning: A paper for the Thinkers in Residence programme." Royal Flemish Academy of Belgium for Science and the Arts (2014), p. 3. Retrieved from [https://discovery.ucl.ac.uk/id/eprint/1549749/7/Laurillard%20chapter%20HE%20in%20blended-learning\\_en.pdf](https://discovery.ucl.ac.uk/id/eprint/1549749/7/Laurillard%20chapter%20HE%20in%20blended-learning_en.pdf).





### 1.8.1.3. Blending Synchronous and Asynchronous Approaches

By [Jill Zwighuizen](#)

Traditionally, [blended learning](#) has been defined as a course that includes both face-to-face and online learning components. But in the context of COVID-19, there is a new type of blending to think about and that is the mix of synchronous and asynchronous learning. Due to the pandemic schools around the world had to move rapidly into fully-distanced models of teaching and learning. By far the easiest way to do that for most faculty members was to substitute Zoom calls for classroom lectures. While this model has a lot of advantages—social interaction for isolated students, opportunity for dialogue, the ability of the teacher to address misunderstandings as they arise—it also has some significant disadvantages. Internet connectivity is not always dependable for many of our students (and faculty, for that matter). Low bandwidth, internet service interruptions, rolling power outages, and other infrastructure issues can make it difficult to get the entire class together at the same time for a Zoom call. Students (and faculty) may also have family obligations that make it difficult to log on to a Zoom call at a set time. They may need to supervise their children's at-home learning or tend to a sick family member. If multiple family members have to log on to Zoom calls at the same time, that can create bandwidth problems. Including asynchronous learning opportunities can alleviate some of the stress of not being able to attend live sessions for our students.

Diana Laurillard has written extensively on the subject of blended learning. She encourages teachers to leverage the strengths of both face-to-face and online learning as they design blended curriculum [1]. We can broaden that principle to think about leveraging the advantages of both synchronous and asynchronous approaches to distance learning.



When we think about our learning goals for the course, how many of them are related to content and how many are related to skills? Content delivery can generally be handled quite well by using asynchronous approaches. Students can read articles and books or watch videos on their own time and fit learning around the other demands on their time. For many subjects, it is possible to find great content already available online that the teacher would not have to create herself. Perhaps students could watch a TED talk or read a recent article to supplement their textbook reading on the topic of the week. If a live lecture is necessary, most videoconferencing software offers the option to record the session so students who could not attend can watch it later.

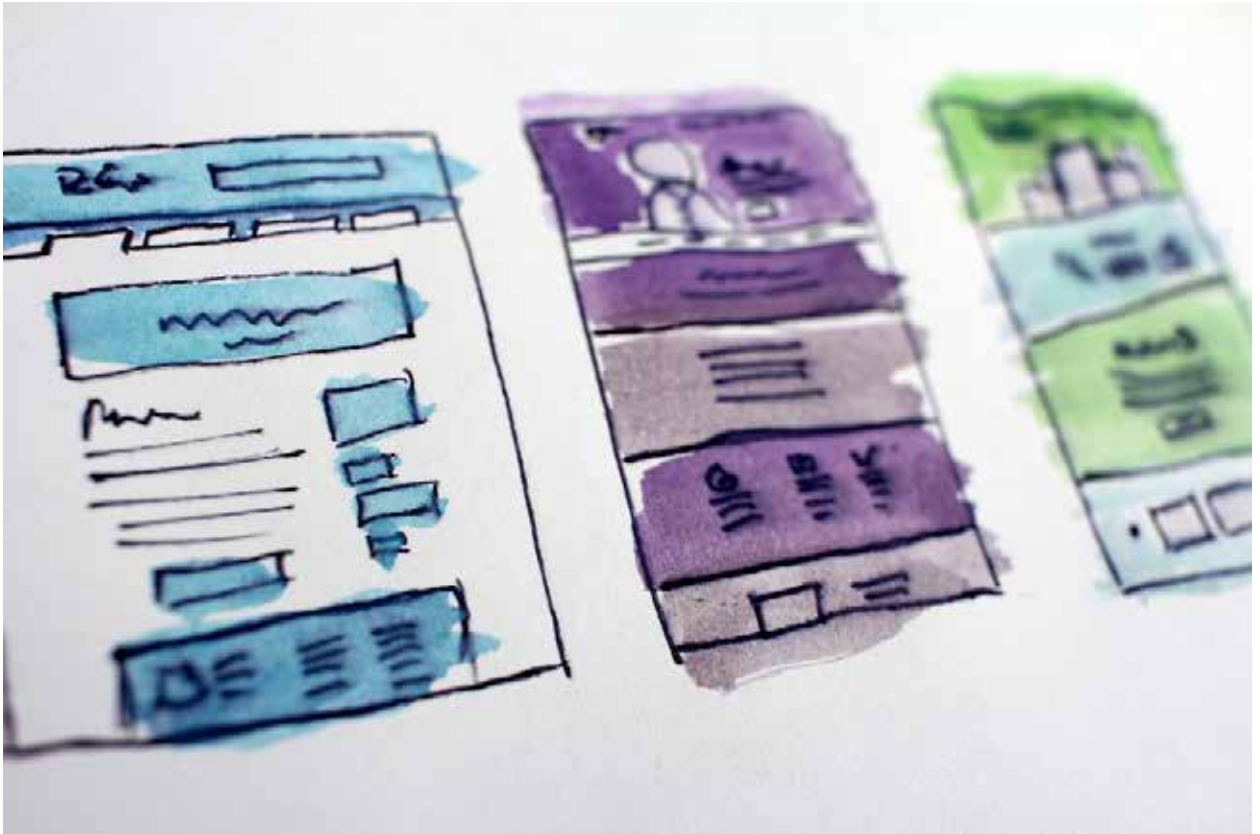
Synchronous approaches tend to shine when it comes to application of the course content. A “flipped classroom” approach takes advantage of this and puts the content delivery online and reserves the classroom time for application. The same principle can be applied to synchronous and asynchronous distance learning. Synchronous sessions allow time for students to dialogue in pairs or in smaller breakout groups about the material. Group dialogue is also possible in asynchronous models, such as discussion forums. But for a group project like evaluating a case study, a live, synchronous chat would be preferable, to be supplemented with asynchronous dialogue as needed. Synchronous dialogue with the teacher is also helpful as it affords the teacher the opportunity to listen to student perceptions of the content and correct misunderstandings as needed. It also affords the opportunity to evaluate behavioral skills that are harder to assess in an asynchronously.

As you think about designing a blended course, look at your learning goals and for each one, ask yourself if it would be better achieved with a synchronous model, an asynchronous model, or a combination of the two. Remember that there is great flexibility in distance learning so you might choose a Zoom session one week and a discussion forum based on a video the next week. Just be sure to communicate the schedule clearly to your students and make sure they understand the rationale for the mix of synchronous and asynchronous activities.

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[1] Diana Laurillard, "Thinking about blended learning: A paper for the Thinkers in Residence programme." Royal Flemish Academy of Belgium for Science and the Arts (2014), p. 3. Retrieved from [https://discovery.ucl.ac.uk/id/eprint/1549749/7/Laurillard%20chapter%20HE%20in%20 blended-learning\\_en.pdf](https://discovery.ucl.ac.uk/id/eprint/1549749/7/Laurillard%20chapter%20HE%20in%20blended-learning_en.pdf).

## 1.8.2. Information Architecture



### 1.8.2.1. [Information Architecture \(IA\)](#)

By [Rob Hayden](#)

You may be asking, "What is information architecture (IA), and how can it help us in our work of online course design?" Horizon's simple definition is that IA represents the ways in which you will organize the learning pathway(s) in your course. Those who work in the IA field suggest three big ideas that inform how we should think related to the organization of an online course. The first two ideas come from Abby Covert and the third from Dan Klyn (see the links below).

- **Arrangement:** Covert states, "Information Architecture is how we arrange the parts to be understandable as a whole ... IA is not directions for how something should look, but rather how it's intended to be perceived" [1]. The implication of this definition is that we need to take time to think critically about the arrangement of the various parts in our courses. We need to consider whether our arrangement will actually help learners achieve our intended outcomes. You might ask, "Is there a better way to arrange the various parts of our course that will lead learners toward our stated purposes?"
- **Taxonomies:** Later in her talk, Covert uses the idea of taxonomies to explain that the categories we choose to organize information influence the meaning that others will take away from what we are wanting to communicate. Typical taxonomies used to organize online courses are often units and lessons, or LMS tools like Moodle books, lessons, and forum discussions, or independent versus collaborative work, or scaffolded drafts or assignments leading to a summative assessment. The point is that these organizational decisions reflect labels and

categories (taxonomies) that we use to help learners make sense of the learning. What design taxonomies might help you organize your course?

## We need to anticipate the ways in which users and information want to flow.

DAN KLYN

- **Stakeholder Preferences:** A third important idea on how IA might be useful to your work in online course design comes from Dan Klyn. Klyn suggests that we need to “anticipate the ways in which users and information want to flow” [2]. By this, Klyn is suggesting that we need to work hard to discover how the learners, educational disciplines, training organizations, and communities of practice that we represent may want or need the learning to flow in order to be successful in our courses. These ideas point to the priority of evaluation in online course design. In essence, good IA seeks to devise ways to hear from stakeholders while also accommodating for change over time. How might you discover these preferences that inform your work of online course design?

IA helps us analyze to what degree and how our choices and organization of the information in our courses lead learners to the intended outcomes we have specified. Or said another way, IA focuses on the utility of our design work in accomplishing our educational purposes. However, IA as a field of study also encourages us to consider how our design work might be useful and desirable to the learner while also reflecting the priorities of our disciplines.

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[1] Abby Covert, "How to Make Sense of Any Mess" (presentation at From Business to Buttons, April 15, 2016). Retrieved Oct. 2017 from <https://www.youtube.com/watch?v=XD2OkDPAI6s>.

[2] Dan Klyn, "Explaining Information Architecture." Retrieved Oct. 2017 from <https://vimeo.com/8866160>.

### 1.8.3. Professional Development



#### 1.8.3.1. Communities of Practice

By [Rob Hayden](#)

Etienne Wenger and William Snyder claim that “although *communities of practice* have been around for centuries” the use of “the term [is more] recent” [1]. Wenger and Snyder go on to note how craftsmen gathered in ancient Greece for social, business, and educational reasons, and guilds in the Middle Ages gathered for similar purposes. Our question for you is, how might communities of practice (CoP) be instrumental in making design useful to you, and more broadly, in helping your school become a learning organization?

#### Characteristics

CoP have been envisioned as requiring three primary characteristics that may not be true of other kinds of groups like teams, clubs, or networks. These three characteristics are [a common domain](#), [an interactive community](#), and [a shared practice](#).

**A Common Domain:** According to the Canadian [communityofpractice website](#), CoP “have a shared domain of interest, competence and commitment that distinguishes them from other [groups].” The domain reflects an area of professional interest that becomes a source of learning and growth for its members.

**An Interactive Community:** CoP are groups that regularly seek to engage with one another around shared activities, knowledge, and strategies of practice within a common domain. They are relationally focused groups that connect in order to discuss, support and learn from each other.



**A Shared Practice:** CoP do not simply meet to share or interact with each around an area of interest, but rather around a domain in which participants are actual practitioners. This sharing of ideas and resources thus helps to cultivate tacit knowledge within community members so that they are able to implement new methods and techniques within a particular domain.

## Authentic Learning

So, how might you encourage the development of CoP in your educational context? And what might be the benefits of doing so? Connecting CoP with the SECI model of organizational learning, we recognize that CoP can engender all four knowledge creation processes. Although CoP are most often envisioned as *socialization* processes, CoP can also generate explicit knowledge as a summary step in certain tacit exchanges (the process of *externalization*). In addition, CoP can leverage formal training times to generate new tacit knowledge from expert explicit knowledge (the process of *internalization*). We see the following three overarching purposes as significant reasons why CoP reflect strategic priorities for organizational learning and professional growth:



**Mutual Trust and Open Dialogue:** A common set of struggles in any organization surrounds our human fallibilities and brokenness. This *dark side* or *shadow side* reality in organizational life can lead to counterproductive problems like selfish ambition, conflict, isolation, and distrust. CoP offer a learning space where trust can be cultivated through open dialogue. CoP can generate redemptive thinking and synergistic relationships when such a vision is established for why CoP exist.

**Shared Participation and Reflective Practice:** Horizon would encourage you to envision the development of CoP for the purpose of allowing relationships to encourage collaborative growth among its participants. Simply coming together as fellow practitioners can generate conversations that result in learning and growth. These purposes can be even further amplified when CoP encourage a mindset of reflective practice, that is, of participants examining personal assumptions related to practice and making them explicit for the benefit of the CoP.

**Cultivating Culture:** CoP also offer a fruitful space for cultivating a culture of learning and growth across an organization. This happens when its members engage in mutual sharing of ideas and experiences through regular dialogue. CoP also can help generate a spirit of experimentation, where members are able to explore new ideas safely and report back to the community what happened whether the experiment seemed a success or a failure. In these ways, CoP begin to develop a share language of personal growth, professional learning, and best practice.



[1] E. Wenger & W. Snyder, "Communities of Practice: The Organizational Frontier, " *Harvard Business Review*. January-February, 2000, p. 140. Accessed on November 10, 2020 at <http://www.psychosphere.com/Communities%20of%20Practice%20-%20the%20organizational%20frontier%20by%20Wenger.pdf>

## 1.8.4. Other Pathways



### 1.8.4.1. Designing for High and Low Bandwidth Contexts

By [Jill Zwuyghuizen](#)

As of January 2021, there were 4.66 billion internet users, representing 59.5% of the global population. Internet access continues to spread rapidly, with estimates of an annual growth rate of more than 7% [1]. Although access has been expanding rapidly and that trend seems to be continuing, there are still great disparities from region to region in terms of how reliable that access to the internet is. You and your on-campus students near the big city may have consistent, high speed internet. But students who are joining your online class remotely from more rural areas may be dealing with frequent disruptions to their internet service and lower speed connections to begin with. How do you design a course that meets the needs of both groups of learners?

#### Zoom / Synchronous Meetings

Synchronous Zoom sessions are not usually a problem for students who have reliable high speed internet. But they may be very difficult for students in other contexts. Before scheduling Zoom meetings for your online course, here are a few design questions to think about.

- How many of your students will have difficulty accessing the Zoom meeting from their homes?
- A significant portion of the rapid internet growth has been driven by mobile internet users. In some areas mobile data is very cheap, but in others it is very expensive. How much does mobile data cost in the areas where your students

live? Is it feasible to ask them to join a Zoom call from their mobile device as a backup plan if their home internet service is disrupted? How much would it cost if they did so?

- How much interaction and discussion is planned for the Zoom session? How much time for transmission of content (lecture?)
- Is it possible to record the Zoom call so that students who might have trouble accessing it can watch it later? Although this option would allow them to hear the content, it would not allow them to participate. Would that be detrimental to their learning? What impact would it have on the sense of community among the learners?
- What types of lower bandwidth activities could be used to cultivate a sense of community for learners who find themselves frequently needing to view recorded Zoom meetings?

## Video

Video is not usually a problem for learners who have reliable high speed internet. It may be problematic for students who have a very low bandwidth connection. However, for students who have high speed internet with periodic disruptions (rolling brownouts, etc.), video might or might not be a problem. A video that students can watch at a time of their choosing would be easier to navigate with a spotty internet connection than joining a Zoom call at a fixed time. Generally speaking, the shorter the video the better. Ideally, videos should be no longer than 6 minutes [2].

- How many of your students will have difficulty viewing videos from their home internet connections?
- How expensive is mobile data? Is it feasible for them to view videos from their mobile devices? How much would it cost if they did?
- How long are the videos in your course? If you have any videos that are longer than 15 minutes, could you break them up into smaller segments?

Click [here](#) for more ideas on using video, including ideas for how to make videos interactive.

## Images

Adding images to your Moodle course (homepage, Pages, Books, Lessons) is a fantastic way to increase learner engagement with the course material. However, large images cause pages to load slowly, which can be very frustrating for learners with low bandwidth. Even learners with higher speed internet don't like to wait for pages to load. **So the best practice when using images is to reduce the size of the image to the smallest size necessary.** Tools like [Webresizer](#) are a great help with this process. If you find a great photo on [Unsplash](#) that is 6,000 x 4,000 pixels and you plan to display it at 400 x 267 pixels in your course, you can make it 99% smaller on Webresizer, reducing it from 5,953 KB to 36 KB. That's a significant savings in how long it will take the page to load and would be a great benefit to students in lower bandwidth contexts. Note that loading the 6,000 x 4,000 image into Moodle and adjusting the display size down to 400 x 267 does not reduce the file size of the image, nor will it reduce the page load time. You need to resize the image using a tool like Webresizer first, and then load the optimized image into Moodle in order to experience the benefits of using the reduced size image.

## Written Content

There are many different formats for sharing written content with students. Moodle Pages, Books, and Lessons are all ways to present written content in Moodle. Accessing pages with text generally requires less bandwidth than streaming video, so these options have the potential to reach a wider range of learners. You can also upload files for your students to download and read offline. PDFs are ideal for sharing content, though other types of files like Word Docs and PowerPoint files can also be shared when they are better suited to your pedagogical purpose. For students with extremely limited internet access, downloading files to read later may be one of the better options for transmitting content. Just keep in mind that in situations like this, file size matters a great deal. If you have a large file, try splitting it up into several smaller files to make downloading easier. Also keep in mind the same considerations with images as above, and try to compress image and file sizes as much as possible.

## Discussion forums

Interactions between learners are an important part of the learning process. As teachers, we do all we can to encourage a sense of community among our students. As designers, we can design and plan courses in a way that will create opportunities for that community to develop. As we think about ways to develop community that would reach learners in lower bandwidth contexts, discussion forums are a powerful tool at our disposal. Forums are asynchronous, which makes them ideal activities for learners who deal with interrupted or lower speed internet connections. They can post and reply to others whenever they have the opportunity to do so. The conversation in a forum might take place over days instead of an hour or two in a Zoom call, but this can actually be a great asset that leads to deeper learning. Students have more time to reflect on the material and think about their responses before posting. If we as course designers want to take advantage of the benefits of discussion forums, then we need to learn how to write good discussion questions. Here are a few thoughts to consider as we reflect on our forum questions.

- Will this question lead to discussion? Yes/no questions or questions that can be answered with a single word or phrase don't generally lead to discussion. But a question that asks students to take a position (yes or no) and support it with evidence could lead to discussion as students engage with the evidence adduced by others.
- Do the forum instructions clearly explain the type of response students should make to one another? Short responses like, "I agree with you," do not advance the discussion. If you want to see more substantive replies, you may need to explain that in the directions.
- How long should the initial post be? How long should the replies be? What is the deadline for the initial post? What is the deadline for the replies to other students? Make sure that your forum instructions provide clarity to students about the expectations for the discussion.

Click [here](#) for more ideas about designing good discussion questions.

- [1] "Digital Around the World," <https://datareportal.com/global-digital-overview>, accessed April 13, 2021.
- [2] Barbra Burch, "Video Length in Online Courses: What the Research Says," <https://www.qualitymatters.org/qa-resources/resource-center/articles-resources/research-video-length>, accessed April 13, 2021.



## 1.9. Backward Design

### 1.9.1. Overview

#### 1.9.1.1. Backward Design in 7 steps



By [Horizon](#)

When you set out to design a new course, where do you begin? For many of us, the first place we start is with the content. We are experts in our field of study after all, so it is natural for us to immediately start generating ideas of all the topics that we want to teach to our students during the course. Yet research indicates that if we don't start with the end goal in mind, we won't achieve our learning objectives. So as strong as the temptation is to begin with content, the better place to start is by thinking about our learning goals for the course.

1) We analyze the learners, learning environment, and learning goals connected with a particular course.

We begin by analyzing three primary educational contexts that inform how we design our course. Although there are many different approaches that might aid in the analysis phase of online course design, most encourage educators to consider [questions](#) related to the following three topics:

1. Who are the *learners* who will participate in your course?
2. What is the *learning environment* you anticipate utilizing for your course?
3. What *learning goals* will drive the nature and purpose of the educational processes in your course?

## 2) We specify our course objectives in light of our program objectives.

As we think about our course goals, we need to know where the course fits into the program. What overall program goals will be advanced by the course? We can also ask ourselves questions like, “What do I hope to see in my students’ lives 5-10 years from now as a result of this course? What would they need to learn in this course that would set them on a trajectory to achieve that long-term goal?” Thinking about long-term goals and program goals can help us craft specific learning **objectives** for the course.

For a first-year Hebrew course, one long-term goal might be that we want the students to do exegesis in the Hebrew text of the Bible when they teach and preach. That would lead us to write course objectives like, “At the end of this course students will be able to read Hebrew narrative,” (behavioral) and “Students will enjoy learning Hebrew enough to stick with it until they can read proficiently” (affective).

## 3) We indicate what counts as evidence in student achievement.

Once we have identified our objectives for the course, we then need to think about what **evidence** would demonstrate that our objectives have been met. If the goal is for students to be able to read Hebrew narrative by the end of one year of study, how will we know that they can do so? Perhaps we would ask them to translate a short narrative passage with the aid of a dictionary. Their translation would serve as evidence that they understand recognize the vocabulary and understand the grammar and syntax at the level we would expect after one year of study. We might then rewrite our course objective to include this evidence: “At the end of this course students will demonstrate their knowledge of Hebrew by translating a narrative passage with the aid of a dictionary.”

## 4) We articulate an assessment strategy that will allow students to demonstrate this evidence.

Once we have identified evidence for each of our course objectives, we can then design **assessments** that will allow us to measure that evidence. For the first year Hebrew class, perhaps we would choose a suitable narrative passage, provide a list of definitions for any unfamiliar vocabulary words, and ask students to translate the passage using only the provided list of vocabulary help.

## 5) We generate a course plan (blueprint) that identifies necessary course content, organizing all course components through alignment, distribution and scaffolding.

After thinking about our assessment strategy, we design course content that will help students achieve the assessments we have designed. It may be surprising to see content so far down in the process—that is why it is called ‘backward design.’ Following this process helps us make decisions about how to narrow the scope of the course content. We do not have enough time to teach everything there is to know about our subject in one course, so of necessity we must be selective. By designing the assessments first we can make our decisions about what content to include based on what students will need to know in order to successfully complete the assessments. There will be a lot of Hebrew grammar concepts to learn and vocabulary to memorize

for students to get to the point of being able to translate a passage at the end of first year Hebrew. But because we have identified a narrative passage as our assessment focus, we can set aside topics pertaining to Hebrew poetry as not relevant. Organizing our course content in a course [blueprint](#) can help us make decisions about what content is needed.

Once we have identified our objectives, evidence, and assessments, we want to ensure that they are *aligned*. We should not have any course objectives that are not being assessed, nor should we have assessments that do not relate to one or more of our course objectives. Articulating evidence for each objective helps us make sure that our objectives and assessments are well-aligned. We also need to consider the alignment of our content with our assessments. We have a limited amount of time with our learners so we need to be selective about the content we teach. We need to prioritize the content that advances our course objectives and helps students achieve the course assessments.

We need to think about the workload in our course from the learner's perspective. Busy adult learners need to be able to plan when they will devote time to course work as they juggle their other work and family commitments. If a course has 2 hours of work the first week, 3 hours the second week, and then 10 hours the third week, students will be frustrated and may be unable to complete all of the work in the third week. As much as possible, we want to *distribute* the workload evenly. If students have 5 hours of work to complete each week they will have a much easier time managing their schedules.

Some of our learning goals may require students to first work on smaller goals that will build toward the larger goals. First year Hebrew students need to memorize noun and verb endings before they can parse, and they need to memorize vocabulary before they can read. We need to *scaffold* the learning in our course so that as students follow the learning pathway they are naturally led to achieve the learning objectives.

## 6) We adapt our learning design to encourage user engagement and teaching presence.

As we work on designing our course, we want to keep the principles of [Learner Experience](#) (LX) in mind. Learners are motivated to learn content that they find to be *usable*, *useful*, and *desirable*. The design and organization of our courses should make it easy to find material. Courses should be easily accessible and the arrangement should be as intuitive as possible. Adult learners tend to be interested in content that is relevant or useful to them. Our learners will be motivated to engage with the subjects we teach if we can demonstrate how the course content is relevant to their lives. We also need to consider what makes our content desirable—that which is good, beautiful, and true. Designing our content in such a way that learners find it to be usable, useful, and desirable will increase their motivation to engage the course and will help us as we seek to design learning that leads to transformation.

Another aspect that leads to learner engagement is **teaching presence**. Ordinarily we might think about teaching presence as it relates to the role of the facilitator. However, there are ways in which learning designers can create opportunities for teaching presence in their course design. These include designing *feedback mechanisms* and *creative pedagogies*, as well as incorporating *suitable best practices* for teaching presence in the design.

## 7) We design an evaluation strategy for course revision and improvement.

As designers, we want to create **evaluation** strategies that enable student evaluation of themselves as learners. The way we ask evaluation questions can lead learners to take responsibility for their own learning. We also want to design evaluation strategies that enable feedback that supports teacher growth and development. When we invite students to give feedback to the teacher, we want to invite their contributions in a manner that is helpful for the teacher to continue to grow in her craft. We also want to invite student feedback that enables us to create a plan for improving and revising the course. The learners' perspective on the course is valuable as we consider ways to improve it for future offerings.

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### For further reading:

[Understanding by Design \(UbD\) white paper](#) (McTighe and Wiggins)

[Overview of Backward Design](#) (from IU)

[Resources for Backward Design](#) (from IU)

[Writing Course-level Learning Outcomes](#) (from TTU)



## 1.9.2. Outcomes

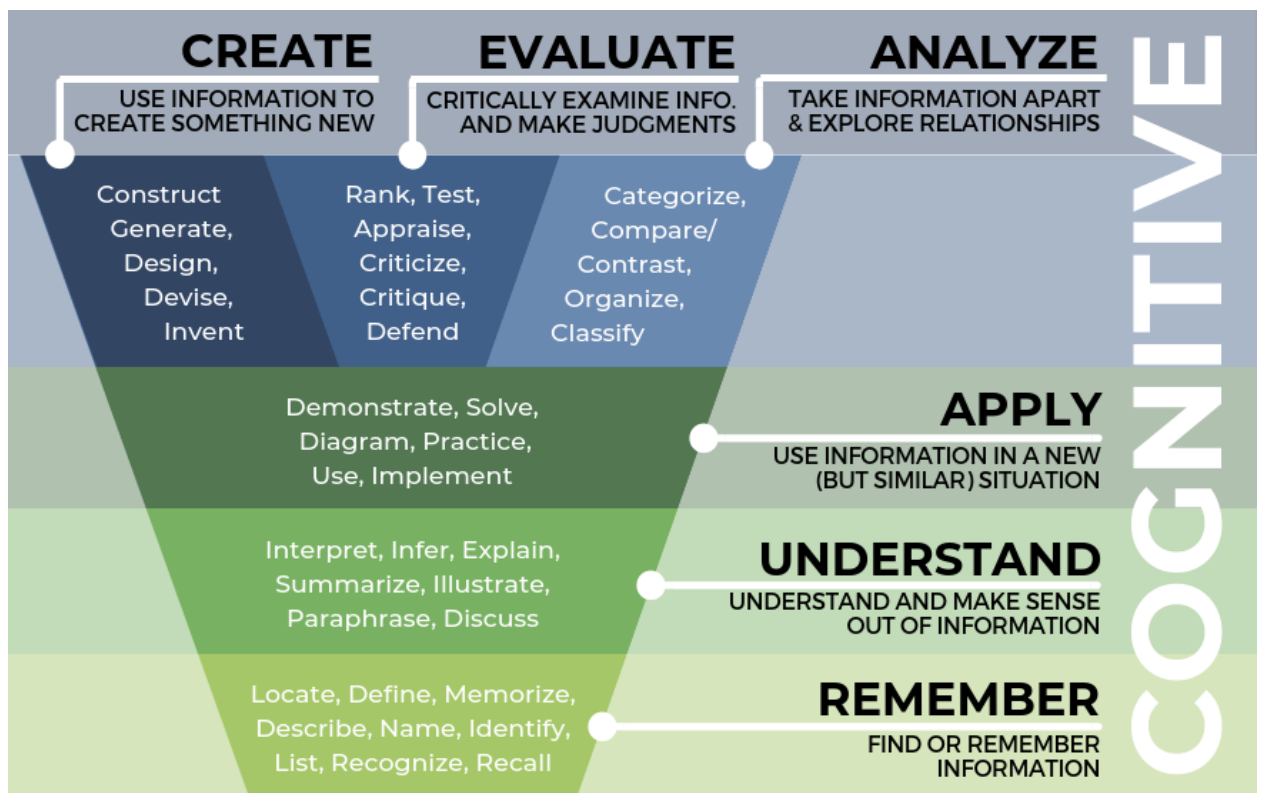


### 1.9.2.1. Writing Cognitive Objectives

By [Rob Hayden](#)

In 1956 an educational psychologist, Benjamin Bloom, articulated a hierarchy (taxonomy) for understanding differing levels of cognition, starting with the most basic function of recalling knowledge which he termed “knowledge” to the most advanced function of making judgements about the value of knowledge or learning which he termed “evaluation.” This original system for categorizing levels of cognition was [later revised](#) by one of Bloom’s students [1], reordering and redefining two of Bloom’s original categories (the final two) and adapting the titles of each level from nouns to verbs. The graphic below reflects these refined categories, along with a more recent perspective that encourages us to envision the final three categories as reflecting comparable levels of higher cognition rather than linear progressions.





Adapted from Anderson & Krathwohl, 2001.

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Take a look at the graphic on this page, which reflects Horizon's growing understanding of these revised categories. This depiction moves from the less complex cognitive category of "remember" to the more complex cognitive categories of "create, evaluate, and analyze." A short description is offered under each heading followed by a list of verbs that generally reflect what learners might be expected to do in order to achieve these levels of cognition. So how do we work to create learning experiences that progress within a course and over the span of an entire curriculum towards these more complex levels of thinking and understanding? And how do we accommodate a range of students who come into our programs with varying abilities related to these cognitive levels of learning? We believe that your work as an online course designer will be enhanced as you consider how the questions, activities and assessments you formulate may lead your learners into higher cognition.

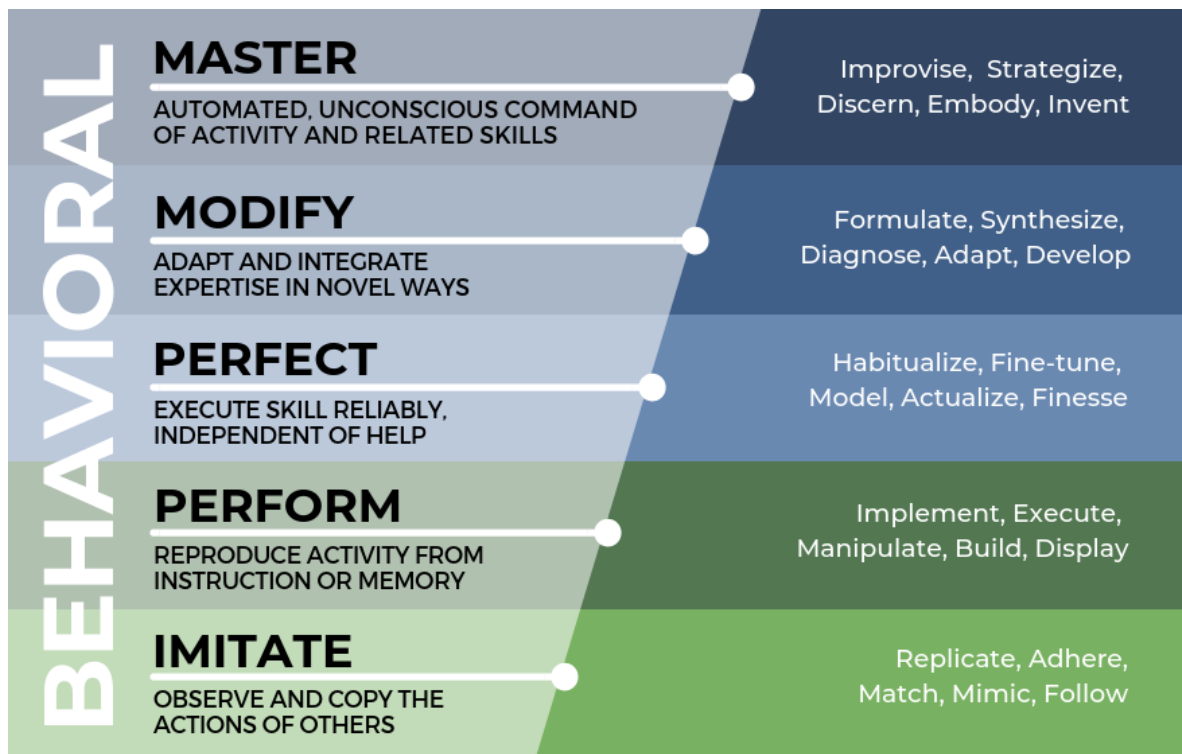
[1] Lorin W. Anderson and David R. Krathwohl, *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives* (New York: Longman, 2001).



### 1.9.2.2. Writing Behavioral Objectives

By [Rob Hayden](#)

There is less consensus surrounding which theory best categorizes a hierarchy of behavioral (or psychomotor) learning. We will not take the time to explore a list of possible behavioral taxonomies, as this can be pursued via a Google search on the topic. Instead, we will focus on a proven model that we believe has value in theological education, namely, Horizon's adaptation of [Ravindra Dave's taxonomy](#) [1] of behavioral learning.



Adapted from Dave, 1975.

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Horizon adapted Dave's taxonomy by changing her titles from nouns to verbs and by seeking to better align them with our priorities in theological education. So, what do you think? Do you find these categories and descriptions helpful?

One common critique of online education related to behavioral learning is how to address the physical distance that separates teachers and students from one another. How would you respond to this challenge? At Horizon, we have responded in two ways.

First, we have discovered that applying this same critique to classroom-based theological education confronts us with a similar set of problems. We recognize that most ministry competencies can only be simulated in the classroom. In reality, these competencies are better achieved and assessed in real-life ministry settings, such as in apprenticeship models of education. In this sense, online education actually offers an advantage over classroom-based approaches since learners are situated within their real-life contexts during the learning experience. The challenge then is envisioning how we might push our learning activities and assessments into the contexts of our learners' lives and ministries, relying on local evaluation, personal reflection, collaboration and dialogue as some of our primary educational tools.

**It takes several generations to get past the point of depending on the old medium for a way to think about the new and to get to the point of exploiting the new medium artfully in its own right.**

JAMES O'DONNELL

Second, O'Donnell's subtle admonition that researchers explore how the medium of online education might be "artfully [exploited] in its own right," [2] has led to some significant new perspectives on the subject. Recent research is suggesting that the most effective educational models today are in fact [blended](#) or hybrid models. These effective models are seeking to leverage the strengths of both online and face-to-face approaches, while accounting for inherent weaknesses in each mode of instruction. If you were to suggest lists of strengths and weaknesses for both online and face-to-face education, what would you include? At Horizon, we are encouraging educators to consider how they might maximize the effectiveness of their programs in these blended or hybrid ways.

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[1] Ravindra H. Dave, "Psychomotor Levels" in *Developing and Writing Behavioural Objectives*, ed. Robert J. Armstrong (Tucson: Educational Innovators Press, 1975).

[2] James J. O'Donnell, *Avatars of the Word: From Papyrus to Cyberspace* (Cambridge: Harvard University Press, 2000), 42.



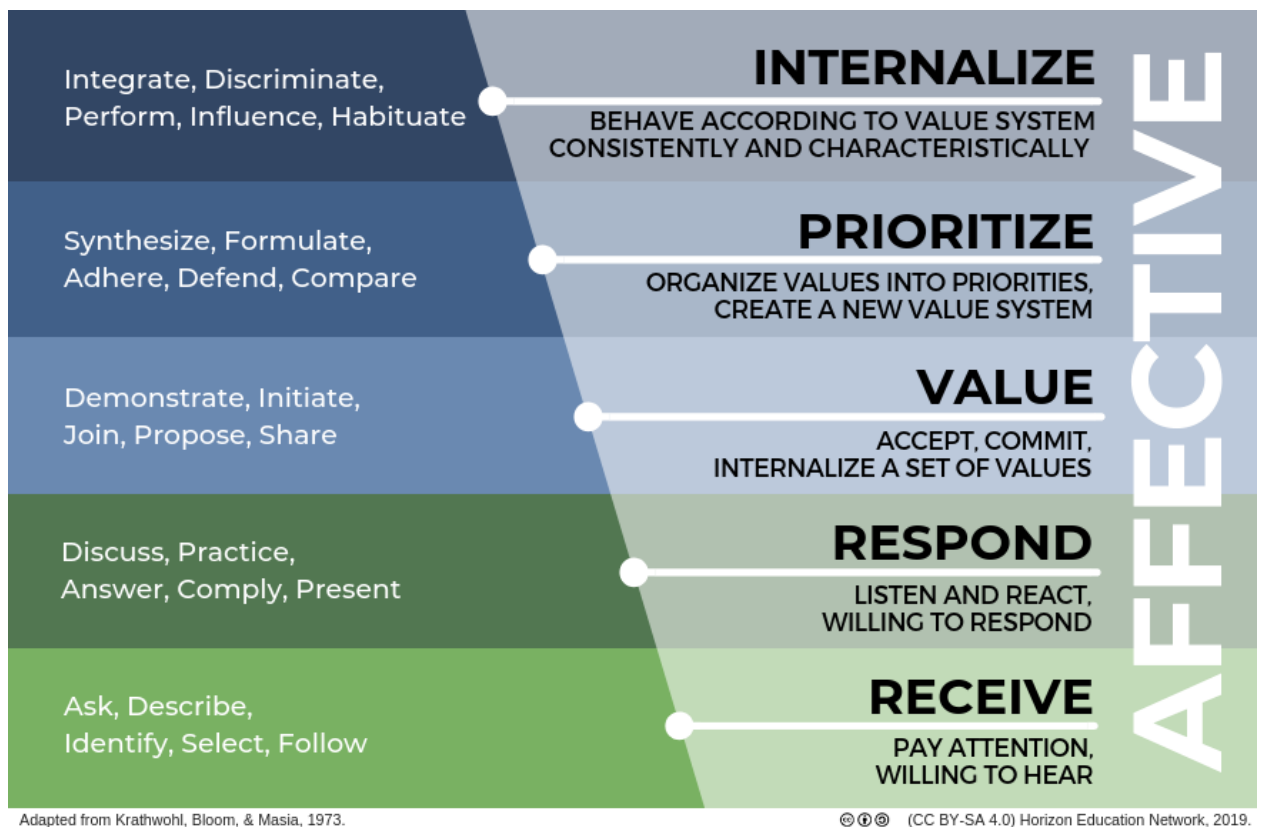
### 1.9.2.3. Writing Affective Objectives

By [Rob Hayden](#)

The affective learning taxonomy is one that is often overlooked in our traditional educational models, and yet is absolutely essential to accomplishing our long-range goals of life transformation and ministry competence. Since the time of the enlightenment, formal education has increasingly become preoccupied with a focus on cognition over and above behavior and affect. Thus today, one practical reason why we tend to ignore the affective domain in our teaching and learning is that contemporary accreditation requirements specify that our learning goals must be measurable. We recognize that a person's character, inner thoughts, or value system cannot be quantified in the same way that cognitive demonstrations of learning can.

In his book *Transforming Theological Education*, Perry Shaw admonishes us as theological educators noting our common failure to influence affective learning in the hearts and minds of our students. He goes on to highlight the strong biblical imperatives of developing Christian character, attitudes, values, and healthy relationships above the priority of articulating what it is that we know. In addition, Shaw highlights some of the growing research on affective learning which suggests a strong correlation between a learner's emotions and strength of motivation with the depth of their learning. Furthermore, he addresses modern brain research, which clearly connects affective learning with long-term memory and life transformation [1].

So, how might we influence a student's motivation, values, and character development in our courses? Take a look at Horizon's revised affective taxonomy (below), which was originally developed by Krathwohl, Bloom, and Masia [2]. As with the other learning taxonomies, these levels of affective learning depict progress from simple to complex or toward higher levels of affective learning.



We would like to conclude this post with a final thought. Typically, accreditation standards require our formal course objectives to be measurable. And yet the idea of measurement can be misleading in that it assumes that we can in fact quantify all aspects of learning. We understand the importance of institutions needing to vouch for the standards of learning evidenced by their students. However, we believe that we must also rely on the wisdom of godly leaders whose consensus about ministry preparation is essential. This is especially true in the affective learning domain. So we prefer to think about evidence rather than measurement, especially in the affective domain of learning.

Let's consider an example. One affective goal we might have is that our students begin to value (category 3 above) biblical stewardship in their work or ministry. We might create a learning activity or formal assessment around creating a personal or church budget. With this in mind, we would ask ourselves what biblical stewardship looks like so that we might accurately assess whether our students are in fact beginning to value this biblical priority. In answering this question, we likely would come to the conclusion that this internal quality can, in fact, look quite different in different people. In addition, we would likely recognize that this internal quality can only truly be demonstrated over a lengthier span of ministry rather than in a single course. Finally, we would likely conclude that it is impossible to quantify this spiritual quality such that we might actually assign a "godly stewardship grade" to our students. In fact, we would argue that doing so might unintentionally focus on a student's external behavior, leading toward legalistic understandings of biblical stewardship. However, in thinking about what evidence might demonstrate that a student has begun to internalize a value for this biblical quality via our learning task of creating a budget, we might envision several places where we might engage our students' hearts. Here are three examples of the kinds of evidence we might expect to see demonstrated by students who successfully achieve this affective goal:



1. Students might demonstrate their desire to be faithful to God and compassionate towards others by the budget categories they choose. Thus, we could engage our students in dialogue around their budget categories or perhaps via a required reflection on why students chose to organize their budget in the way they did.
2. Students might demonstrate the value they place on biblical stewardship by the tone in which they write a defense of their budget plan. Do they display a sense of dependence on God, that these are really his resources along with a sense of responsibility to act faithfully?
3. Students might demonstrate their value of this spiritual quality by whether or not—and to what extent—they are receptive to our (or their peers') constructive criticism related to their plan. Do students display a sense of humility in their willingness to receive the constructive criticisms of others?

As you consider your online course design, how might you use this taxonomy to help students internalize a biblical values system that evidences authentic life transformation?

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[1] Perry Shaw, *Transforming Theological Education: A Practical Handbook for Integrative Learning* (Carlisle, UK: Langham Global Library, 2014).

[2] David R. Krathwohl, Benjamin S. Bloom, and Bertram B. Masia, *Taxonomy of Educational Objectives, the Classification of Educational Goals. Handbook II: Affective Domain* (New York: David McKay Co., Inc., 1973).

### 1.9.3. Evidence

#### 1.9.3.1. [Evidence](#) - MISSED POST!

## 1.9.4. Assessment



### 1.9.4.1. Diagnostic Assessment

By [Horizon](#)

Diagnostic assessments are typically non-graded assessments that help a teacher gauge students' prior knowledge of a subject matter.

Some examples of diagnostic assessment include:

- Pre-test
- Self-assessment
- Survey or questionnaire
- Introduction forum

In a Mosaic Literature course where some of the students have grown up in church and others have never read the Bible before, an introduction forum that asks students to share a bit about their religious background is a very useful diagnostic assessment. The teacher can learn about each student's level of familiarity with the Bible in general, or the Old Testament or Pentateuch in particular, before any graded work is done in the course through what students choose to share in their introductions.

In a first-year language course, vocabulary quizzes could be part of the graded assessment strategy for the course, but they could also be conceived of as diagnostic assessments for the student. If students are encouraged to use the vocabulary quiz as a self-diagnostic tool, it provides feedback to them on how well they are doing at memorizing the definitions of new words. They can be encouraged to take the quiz multiple times until they have mastered the new words for the week. Although cheating is less of a concern with a diagnostic self-assessment, the teacher can incorporate a

few words from previous weeks to check if students are retaining the earlier content. There are, of course, other ways to assess if students have memorized their vocabulary—for instance, if they can use it in translations.

## 1.9.4.2. Formative Assessment



By [Horizon](#)

Formative assessments are typically non-graded assessments that help a teacher gauge student learning or competency related to the learning objectives. Data from formative assessments are usually used to influence teaching strategy during a course.

Examples of formative assessment include:

- [Classroom assessment techniques \(CATs\)](#)
- Homework as review for summative assessment
- Reflective journals
- Group or small group feedback (discussion forum)

One of the most popular CATs is called “Muddiest Point.” Students are asked the question, “What was the muddiest point in the lesson?” and then are given a few minutes to write down their answer. In a face-to-face classroom this could be accomplished on scrap paper and turned into the teacher as they leave. In an online class, this could be accomplished through a survey question. (Moodle has Feedback and Questionnaire activities that works well for this.) Whatever the mechanism for collecting the responses, the teacher can then look through them and see what she needs to clarify in the next lesson.



### 1.9.4.3. Summative Assessment



By [Horizon](#)

Summative assessments seek to measure student achievement of course-level learning objectives or competencies. *Comprehensive* summative assessments seek to evaluate student achievement of as many course objectives as possible. Ideally all of the course objectives would be covered by the comprehensive assessment, though this is not always possible. When we consider our strategy for a comprehensive assessment, it is helpful to think about it in connection with the smaller assessments in the course.

Some smaller assessments scaffold student learning in ways that help learners achieve the comprehensive assessment. When minor assignments build toward the comprehensive assessment, this increases student motivation to spend time on the earlier assignments. We call these

Other assessments may be required to measure student achievement of learning objectives or competencies that are not covered by the summative assessment. These may be minor assessments that do not lead toward the summative assessment. We call these

One of the most common methods of comprehensive summative assessment is a final exam. Although it is possible to measure some of our learning objectives with an exam, others are very difficult to measure that way. In addition, when it comes to online learning, exams are much more difficult to administer to geographically dispersed students with the same level of accountability as a proctored exam in the classroom. However, exams are merely one method of measuring student learning. Other methods of assessment can be just as effective—in some cases even more effective—at measuring our learning objectives.

The following list of assessment methods could be used for the comprehensive assessment at the end of the course. They could also be used for lead-up and coverage assessments during the course.

## **QUIZZES AND EXAMS**

## **PAPERS**

- . Subject/topic summary
- . Literature review
- . Article critique
- . Self-directed learning assignment

## **PROJECTS**

- . Simulation
- . Debate
- . Peer-review

## **CASE STUDIES**

- . Critique or evaluate a case study and post conclusions in a forum
- . Problem-based learning
  - o Groups have to solve a messy real-to-life problem & present their strategies
  - o Non-graded discussion forums where groups can discuss the case study

## **PORTFOLIOS**

- . Student showcase
- . Website (Google site)

## **REFLECTIVE ASSESSMENTS**

- . Reflective journals
  - o Student reflects on personal application of course materials
  - o Student reflects on an experience applying the material in real life
- . Student (and) faculty course evaluations

## **PRESENTATIONS**

- . Google slides / PowerPoint
- . Student-generated video/audio presentations (screencapture)
- . Blogs
- . Group presentations
  - o Consulting
  - o Collaborative research
  - o Learning foci: Analyze / Evaluate / Create

## 1.9.5. Blueprint



### 1.9.5.1. Scaffolding, Alignment, and Distribution

By [Jill Zwyghuizen](#)

At its core, backward design is about how to craft a learning pathway that takes students from where they are to where they need to be. One way to think about that is by the concept of **scaffolding**, which means that we structure assessments in such a way that students are able to incrementally achieve a course objective. Students do not jump from not knowing any Hebrew to being able to read passages in a single leap. They take a series of incremental steps over the course of the first year class in order to get there. Good design involves thinking about each of those smaller steps and scaffolding the learning experience to continually advance them toward the end goal.

We also want to keep **alignment** in mind, making sure the assessments connect with the course goals and objectives. If we find we have an assessment that is not aligned with our course objectives, we should pause and ask ourselves why it is important to assess that topic? It may be that checking alignment with our course objectives helps us see that this particular assessment is unnecessary. Or it may be that we realize that we need to modify our course objectives to include a skill we had inadvertently left out.

One final concept to keep in mind when designing courses is to make sure that the weekly workload is steadily and evenly distributed throughout the duration of the course. **Distribution** is about looking at the overall workload of a course and making sure we do not frustrate students with unpredictable course workload demands. The goal is to spread the work out as evenly as possible so students can plan on spending a consistent amount of time each week.



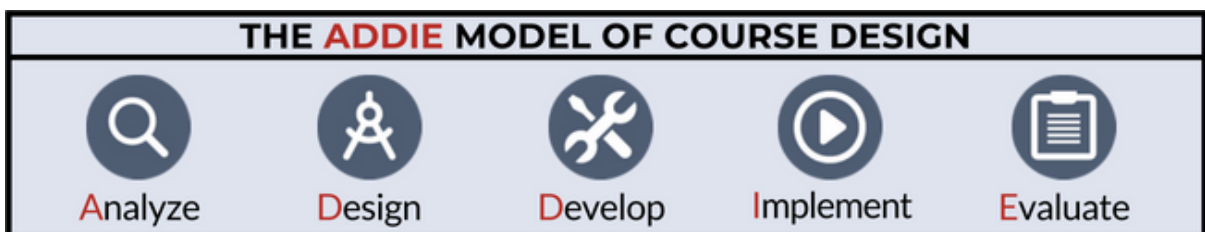


### 1.9.5.2. Creating a Design Blueprint

By [Horizon](#)

Horizon's *Designing for Online Learning* (DOL) Moodle course makes use of the ADDIE model of course design in the development of two course design documents – an *Analyses Document* and a *Design Blueprint*. Although DOL uses a series of forms and interactive learning to help designers generate these documents, it may be that these documents would be helpful to you in your current course design project. For this reason, we have distilled these design processes into two documents: a questionnaire and a blank blueprint.

Horizon's *Analyses Document* is a product that is generated by a series of questions on the topics of Analyzing the Learners who will take your course, Analyzing the Learning Environment of the course, and Analyzing the Learning Goals for the course. This series of questions is available in the [Analyzing Questionnaire](#). These questions are organized to assist you in the Analysis stage of the ADDIE model of course design.



Horizon's *Design Blueprint* is a product that is generated in the Design stage of the ADDIE model. What is not reflected in the *Design Blueprint* are the iterative processes of refining a course's assessment strategy and its alignment in relation to the course's scaffolding and distribution of learning tasks. However, our hope is that the *Design Blueprint* will be a useful document as you engage in these design processes. Both the *Analyzing Questionnaire* and the *Design Blueprint* have been licensed under [Creative Commons Attribution-ShareAlike 4.0 license](#).

## 1.9.6. Evaluation



### 1.9.6.1. Evaluation

By [Horizon](#)

Evaluation typically refers to the means by which the effectiveness or utility of a course or of components within a course are analyzed. We often think of evaluation as something that happens at the end of the course. This idea of “evaluation as autopsy” led John Sener to ask, “instead of waiting until the patient has died, why not identify and address potential problems before the course is over?” [1] In reality, evaluation should be happening at every stage of the design process. As designers, we should invite feedback on our initial plans, on our design blueprint, and our development work long before students ever take the course for the first time. Even then, we want to invite their feedback on the pilot version of the course.

As designers, we want to create evaluation strategies that:

1. Help us improve the quality of the course,
2. Aid in student growth and learning,
3. Support faculty professional development,
4. Equip our educational organization to become a learning organization,
5. Result in communication that is valuable to stakeholders.

## Quality Improvement

We also want to invite feedback from our peers as part of our design process. We also want to invite student feedback that enables us to create a plan for improving and



revising the course. The learners' perspective on the course is valuable as we consider ways to improve it for future offerings. Running a pilot of a new course is a valuable way to seek feedback from learners while the course is still in development.

## Student Growth and Learning

Our end-of-course surveys should include questions about the course, but ideally they should also ask students to evaluate themselves as learners. A well-crafted evaluation strategy can lead learners to take responsibility for their own learning.

## Professional Development

We also want to design evaluation strategies that enable formative feedback that supports teacher growth and development. When we invite students to give feedback to the teacher, we want to invite their contributions in a manner that is helpful for the teacher to continue to grow in her craft.

## Organizational Learning

Evaluation is also useful for *organizational learning*. Learning organizations are always seeking new ways to grow and improve. Getting the right feedback at crucial points is an important part of the process. Evaluation can be a catalyst for growth and improvement if the organization is willing to receive feedback, internalize it, and learn from it. The learning then becomes part of the organizational memory and has an impact on future decisions.

## Communication with Stakeholders

Organizations have a responsibility to communicate with key stakeholders who are invested in the organization. Feedback from evaluations provides content that needs to be shared with the appropriate parties. The level of detail that is needed will vary by stakeholder group (board members, faculty, students, alumni, etc.). Providing that feedback regularly and synthesizing it at the appropriate level is an important part of an organization's overall communication strategy.

## One final suggestion

As a starting point for designing an evaluation strategy, we would invite you to examine a Course Design Review scorecard published by the State University of New York. If you are a Horizon partner, you can access the scorecard via [Horizon's Moodle Resources](#). If you are not, you can download a copy of this document via the [SUNY website](#).

This scorecard is a helpful place to begin thinking about how you might evaluate your course design. You will see that the points of evaluation are organized around 6 design areas:

1. Course Overview and Information
2. Course Technology and Tools
3. Design and Layout
4. Content and Activities
5. Interaction
6. Assessment and Feedback

Secondly, this scorecard is helpful in that a website has been developed to help explain each item in the scorecard. You can either click on each point of evaluation in the scorecard itself, which will open the accompanying website page, or once on the [State University of New York website](#), you can simply scroll point by point by clicking on the forward arrow.

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[1] J. Sener, "Effectively evaluating online learning programs," *eLearn Magazine* (May 2006). Retrieved Oct. 2020 from <http://elearnmag.acm.org/featured.cfm?aid=1145670>

## 1.10. Developing Content

### 1.10.1. Open Educational Resources (OER)



#### 1.10.1.1. Open Educational Resources (OER)

By [Rob Hayden](#)

[Open learning](#) represents a growing facet in global education today, and as such highlights one consequence of the growth of self-directed learning. One of these growing sets of resources is referred to as open educational resources (OER). Although the majority of OER are presently in English, there has been significant, recent growth in other languages.

What is fascinating about the rapid growth of OER worldwide is that some of the early expectations regarding their development and use have not come to pass. Early on, many suggested that OER and MOOCs would replace traditional educational models, arguing that they would be less expensive and would lead to improvements in teaching and learning. This has not proven true. In addition, OER and MOOCs have developed in unexpected ways such that many of the early development websites have stopped developing new content and other initiatives have taken their places. It remains to be seen just how these resources, including MOOCs, may be used in the future. Presently, OER and MOOCs are being used by a larger number of small educational organizations and individuals who are using them in very personal and localized ways.

Take a moment to survey some of the following OER:

## OER Courses & Courseware

- [MIT's Open Courseware](#)
- [Open Yale](#)
- Carnegie Mellon's [Open Learning Initiative](#)
- Merlot's [Community Portals](#)

## OER Development & Curation websites

- [OER Commons](#)
- University of Pittsburgh [Resources Guide & Lists](#)
- [OER World Map](#) (click on the map tab to explore by country or use one of the filters on the left to narrow your query)

## Massive Open Online Courses (MOOCs)

- [Coursera](#)
- [EdX](#)
- [Udacity](#)
- [Alison](#)

## Theological OER

- [The Gospel Coalition](#)
- [Biblical Studies](#)
- [Ligonier Ministries](#)
- [Academic Bibles](#)

So, how might OER be utilized in your learning designs? Are there ways you would envision using OER to accomplish specific learning goals in your learning designs? If so, we would love for you to share your ideas with us. It may be that we could find ways to share these ideas for the benefit of others.



## 1.10.2. Pedagogical Strategies



### 1.10.2.1. Designing Good Discussion Questions

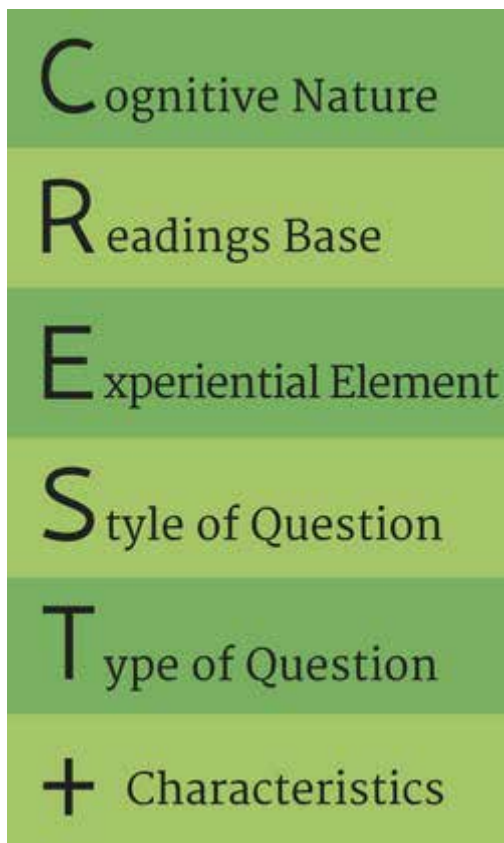
By [Rob Hayden](#)

In another post we introduced [Bloom's Taxonomy](#), specifying how these *categories of understanding* might help us as we design discussion questions or other learning activities. Thus, as we set our minds to designing “good” discussion questions, we should consider how we might invite learners to engage Bloom’s more complex forms of understanding (*analyze, evaluate, or create*) in our assessments. Take a look at the following [helps sheet](#) developed by The College of New Jersey designed to assist teachers who are seeking to create good discussion questions.

For those of you who have a greater interest in exploring the subject of designing discussion questions, you may find an article on MERLOT helpful. MERLOT, which stands for “Multimedia Educational Resource for Learning and Online Teaching,” is a website which also hosts an online journal exploring issues of online learning and teaching. The following link will direct you to an article written by Lynn Akin and Diane Neal (2007) entitled, “[CREST+ Model: Writing Effective Online Discussion Questions](#).” [1] The model outlined in the article has six components that form the acronym “CREST+.” Below is a brief description of each of the six components from the article.

CREST+ represents the following six-fold process for evaluating the ways in which we design effective online discussion questions:





**C: Cognitive Nature** – The teacher ought to consider the learning theory undergirding his or her approach to education. In Unit 2, we highlighted several of these approaches to learning, noting how these beliefs influence the ways in which we teach.

**R: Readings Base** – The authors suggest that our questions need to reflect the ideas embodied in the required resources in a class.

**E: Experiential Element** – Learners (and especially adult learners) bring their experiences to the learning in our courses, so our questions ought to reflect these distinctions by connecting what they ask to the real world of the students.

**S: Style of Question** – The authors recommend varying the style of questions used in a course. For example, some teachers create collaborative questions to encourage students to work together. The authors also mention designing questions that relate to current events, or involve case studies, or

address controversial issues. Finally, they mention some of the ways in which a question may be crafted in order to communicate teacher presence online by using humor, being personable, or welcoming.

**T: Type of Question** – The authors refer to varying the type of question as well. They provide several examples such as using follow-up questions, student-created questions, reflective questions, open-ended questions, and hypothetical questions.

**+**: The “+” identifies a list of characteristics that influence how we structure the question. The authors suggest that teachers be careful to provide clear instructions, such as any requirements or dates associated with the questions that we choose to use.

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[1] Lynn Akin and Diane Neal, "CREST+ Model: Writing Effective Online Discussion Questions," *MERLOT Journal of Online Learning and Teaching* 3.2 (2007), <http://jolt.merlot.org/vol3no2/akin.htm>.