

H5P Training Series:

H5P Settings and Best Practices

This tutorial presents useful information regarding general settings for H5P activities and best practices for creating engaging multimedia-based content.

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1. Overview of This Tutorial

This tutorial covers a variety of topics to help teachers develop engaging H5P learning activities. Feel free to use this tutorial as a general reference when creating just about any type of H5P content.

2. H5P Moodle Settings

Before using H5P interactive content in a Moodle course, you must set up its functionality to suit your preferences. These settings fall under these five categories:

- Display options
- Grade
- Common module settings
- Restrict access
- Activity completion

To edit settings in an existing H5P activity, do the following:

1. Turn on editing in your course page.
2. Click **Edit > Edit settings** for the H5P Interactive Content activity.
3. Scroll down and click to expand the desired category.

Display options:

Two fields appear under **Display options**:

- **Display action bar and frame**—When checked, this option creates a frame around the content type and displays an action bar beneath it. The action bar gives users the options to download or embed the H5P content type.
- **Copyright button**—When checked, this setting enables the copyright button, which displays in the action bar.

Grade:

Three fields appear under **Grade**:

- **Grade category**—This setting controls the category in which this activity's grades are placed in the gradebook. Categories must be set up in the gradebook beforehand. (See Oklahoma CareerTech's Moodle Gradebook tutorial for information.)
- **Grade to pass**—This setting determines the minimum grade required to pass. You can use this grade value to determine activity completion and course completion. The gradebook displays pass grades in green and fail grades in red.
- **Maximum grade**—The maximum grade represents the highest point value a student can receive for completing the activity.

Common module settings:

Four fields appear under this heading:

- **Availability**—This setting has three options:
 - **Show on course page**—This setting makes the activity available to students.
 - **Hide from students**—If selected, students cannot see the link to this activity.
 - **Make available but not shown on course page**—If selected, students can access the activity, but a link to the activity will not appear to students on the main course page. In this case, you must provide the link to the activity (such as a link on a web page).
- **ID number**—An ID number provides means for identifying the activity for grade calculation purposes. If the activity is not included in any grade calculation, you can leave the ID number field blank.

- **Group mode**—This setting has three options:
 - **No groups**
 - **Separate groups**—Each group member can only see their own group, others are invisible.
 - **Visible groups**—Each group member works in their own group, but can also see other groups.
- **Grouping**—A grouping is a collection of groups within a course. If you select a particular grouping, students assigned to groups within the grouping can work together.

Restrict access:

The following steps walk you through the **Restrict access** settings for an H5P activity:

Step	Action	Notes
1.	<p>Section: Restrict Access > Access Restrictions > Add Restriction</p> <p>Fields: Activity Completion</p> <p>If desired, select an activity from the dropdown list and the condition that must be met to allow access to the H5P activity.</p>	You may use this type of restriction in place of the grade condition fields.
2.	<p>Section: Restrict Access > Access Restrictions > Add Restriction</p> <p>Field: Date</p> <p>If enabled, you must enter the appropriate dates that will restrict access to the H5P activity.</p>	This set of fields allows students to view and access the H5P activity only during the specified time period.
3.	<p>Section: Restrict Access > Access Restrictions > Add Restriction</p> <p>Field: Grade</p> <p>If desired, select an activity from the dropdown list and an acceptable grade range that must be met to allow access to the H5P activity.</p>	You may set multiple grade conditions. If you do, access will only be allowed when ALL grade conditions that you specify here are met.
4.	<p>Section: Restrict Access > Access Restrictions > Add Restriction</p> <p>Field: Group</p> <p>Select a field a group criteria from the dropdown menu that must be met for the user to access the H5P activity.</p>	You can select a single group or any group.

Step	Action	Notes
5.	<p>Section: Restrict Access > Access Restrictions > Add Restriction</p> <p>Field: User Profile</p> <p>Select a field and a logical condition that must be met for the user to access the H5P activity.</p>	You can restrict access based on any field from a user’s profile.
6.	<p>Section: Restrict Access > Access Restrictions > Add Restriction</p> <p>Field: Restriction set</p> <p>This setting allows nested restrictions.</p>	This is an advanced setting that allows for restrictions to be placed within a restriction.

Activity completion:

This setting provides four options:

- **Completion tracking**—If enabled, Moodle tracks the learner’s completion, either manually or automatically, based on certain conditions. Multiple conditions may be set if desired. If so, all conditions must be met for the activity to be considered complete.
- **Require view**—Only available if completion tracking is set to “Show activity as complete when conditions are met.” If enabled, the student must view the activity to complete it.
- **Require grade**—Only available if completion tracking is set to “Show activity as complete when conditions are met.” If enabled, the student must receive a grade to complete the activity.
- **Expect completed on**—Only available if the **Enable** checkbox is checked. This setting specifies the date when the activity is expected to be completed.

3. Embedding an H5P Activity in a Web Page

You can embed an existing H5P activity in a Moodle web page. For certain types of content, embedding an H5P activity is the preferred way to display it. Use the following steps for embedding an existing H5P activity in a web page.

Step	Action	Notes
1.	Access the H5P interaction you wish to embed. At the bottom of the screen below the H5P activity, click the <> Embed link.	An Embed popup should appear.

Step	Action	Notes
2.	In the Size boxes, type in the dimensions you want the activity to display. Specifying a size often is not required.	This step may require some trial and error, especially when using vertical images. The window should be wide enough to accommodate the width of one of the images. The height of the window should be large enough for the image and the image title (if a title is used).
3.	Copy the entire iframe code. To do so on a PC, click to highlight it and click Ctrl+C . Close the Embed window and return to the main course page.	
4.	On the main course page under the appropriate topic section, click the Add a resource dropdown menu and choose Page .	The Page editor should appear.
5.	In the Name field, type in the name of the interaction.	
6.	In the Description field, type in an introduction to the activity, if desired.	For training purposes, leave this field blank.
7.	In the Page content section, click the Toolbar Toggle button (upper left corner) to expose the Edit HTML source button (which appears as <>).	
8.	Click the Edit HTML source button.	The HTML source editor should appear.
9.	Paste the iframe code into the HTML source editor by clicking Ctrl+V .	The iframe code should appear in the HTML source editor.
10.	Remove the extraneous code. From within the iframe code, delete: allowfullscreen="allowfullscreen" Also remove the script source by deleting everything starting with "<scriptsrc=" and ending with "</script>." To add a border around the activity, change the frame border to something other than 0, such as 1, 2, 3, or 4.	For example, edit the original code... <pre><iframe src="https://test.ctyou.org/test_site/mod/hvp/embed.php?id=256953" width="360" height="800" frameborder="0" allowfullscreen="allowfullscreen"></iframe> <scriptsrc="https://test50.ethinkeducation.com/oktech_test/mod/hvp/library/js/h5p-resizer.js" charset="UTF-8"></script></pre> ...so that it resembles the following: <pre><iframe width="360" height="800" src="https://test.ctyou.org/test_site/mod/hvp/embed.php?id=256953" frameborder="0"></iframe></pre>
11.	Click the Update button in the lower left corner of the HTML source editor.	The H5P activity should appear in the Page content editing window.

Step	Action	Notes
12.	Click your cursor in the Page content editing window and type in a caption for your activity.	
13.	Click the Save and display button at the bottom of the screen.	The H5P activity and caption should display on the page.

4. Downloading and Uploading H5P Interactive Content

Knowing how to download and upload existing H5P activity allows you to use the same activity in a different Moodle course site or share it with another teacher. The following steps walk you through the process of downloading and uploading an H5P activity in your Moodle course.

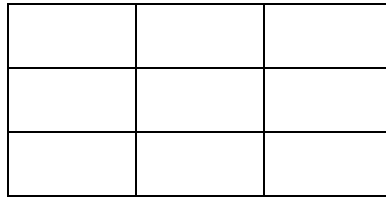
Step	Action	Notes
1.	To download an H5P activity, from your main course page, click to view the H5P activity you wish to download.	
2.	In the bottom left of the display window, click the Download link and then Save it with an .h5p extension.	Remember where you saved the file. IMPORTANT: Only files with the .h5p extension can be uploaded.
3.	To upload an H5P activity, in the main course page under the appropriate topic section, click the Add an activity or resource dropdown menu and choose Interactive Content .	The H5P Interactive Content editor should appear.
4.	Enter the name of the H5P activity in the Name field.	
5.	In the Editor field, click the Upload radio button (instead of Create Content).	
6.	Click the Upload a file button and navigate to where you saved your file.	
7.	Select your file and Open it.	
8.	Click the Use button.	The H5P activity will load in the editing window.
9.	Click the Save and display button at the bottom of the screen.	

5. Preparing Images for Use in H5P Activities

Before uploading images to your H5P activity, save them as JPG or PNG files at 72 dpi using the RGB color mode, and then size them appropriately for viewing on a computer monitor (for example, 1366 x 768 pixels). Although well known, other image editing software exist besides PhotoShop. A free image editor such as Microsoft Paint may already be installed on your computer. Other free or-low cost image editors for use on a computer include GIMP, Photo Pos Pro, and Adobe Photoshop Express. You can also use an online image editing service, such as PickMonkey.com or Pixlr.com.

Snapshot-type images for use in an H5P activity often require cropping to enhance the image’s composition. Crop to focus your viewer’s attention on the subject. In addition:

- **Leave out unnecessary details.** For example, crop the image to reduce background clutter.
- **Consider following the “rule of thirds,”** a guideline that suggests dividing an image into nine equal parts and then placing compositional features along those lines or at their intersection.



Visit the following websites for more guidelines and examples:

- <https://www.companyfolders.com/blog/cropping-photos>
- <https://digital-photography-school.com/tips-cropping-better-composition/>

6. Cropping Images in H5P

Use the following steps to crop images after uploading them into an H5P activity.

Step	Action	Notes
1.	Click Edit image to edit the image.	
2.	Five buttons will display in the top left of the window. To crop the image, choose the one on the far right.	
3.	Use your cursor to click and drag the cropping window over the image.	You can adjust this window by clicking and dragging its corners.
4.	Click the green checkmark button in the top left of the editing window to crop the image.	

Step	Action	Notes
5.	If necessary, you can click the Reset to original link in the top right of the editing window.	Only do this if you are dissatisfied with the crop.
6.	When finished, click Save in the top right of the editing window.	

7. Recording Audio and Video

Instructors can use audio and video recordings in a variety of situations. When deciding which type of media to use, consider the task at hand. For example, podcasts work well for interviewing subject matter experts. Use well-edited videos for skills demonstrations. A brief introductory, “talking head” video or weekly summary video help to personalize learning and to humanize an instructor in an online course.

Careful planning for audio and video projects can help ensure you capture all of the footage you need, and it can save time when editing the video.

Planning Audio/Video Production

Before beginning media production, ask:

- **What information do students need before they engage in an in-class activity?** Offer this information in the audio/video portion of the lesson.
- **What information will the activity help them discover?** You do not need to cover this information in your audio/video, but the media should lead learners on the path toward discovery.
- **Do students need to follow certain procedures?** Use the power of the medium to clearly show students what they need to do. For example, use close-ups or slow motion to help students see what is happening as you demonstrate the skills they will perform in class.
- **Will my audio/video engage my students, spark their curiosity, and motivate them to explore and find answers to their questions?** While face-to-face lectures allow instructors to interact with learners and take advantage of teachable moments, instructors can use audio and video to connect with the audience, take them beyond the classroom, and encourage creativity.

Audio

- Before recording your audio segment, prepare a script. A script can help you stay on topic and present information in a logical order. A well-written script encourages you to speak smoothly. When writing a script, use a conversational tone, short sentences, and simple vocabulary.
- If writing a script for a podcast interview, prepare an introduction, closing, and outline the questions. Inform the interviewee of the nature of questions ahead of time, so that the person can

respond appropriately. However, do not script answers to questions. Instead, use bullet points so you or the interviewee do not leave out important points.

- You do not need a sound studio to record audio. Any quiet space with minimal background noise will work, such as a walk-in clothes closet. Hang a “Do Not Disturb” sign on the door to avoid interruptions. Do a trial run in the location you choose before recording your entire script to check for distracting background noise, such as air-handling systems or buzzing from fluorescent lighting.

Video

The use of videos can increase a learner’s knowledge retention, improve understanding, create enthusiasm, and provide motivation for learning. Videos can include more than just “talking head” lectures. Instructors can use videos to take students on virtual field trips, demonstrate procedures, perform scientific experiments, and a multitude of other activities. Most importantly, videos offer an additional learning strategy for students and provide a positive form of redundancy—the duplication of a learning component that increases the chances of student success. These additional resources do not have to be limited to instructor-produced videos—learners can create videos as class assignments. This can substantially increase your library of learning resources, while also turning students into mini-experts on the assigned topic.

After determining the content for the video, prepare a storyboard. A storyboard is a detailed script that helps determine what you need to say and show in your video. Make good use of the visual nature of video—plan to include images, graphics, and physical action.

Preparing a script also ensures that you cover the topic in a concise way. Aim for your video to be about two to three minutes long, and no more than about 10 minutes in length. Shorter videos are easier to edit, and they are more likely to hold your students’ attention.

Note: See Oklahoma CareerTech’s sample storyboard included with the H5P Interactive Video tutorial, which is available on ctYOU.org.

Sample Video Script

Class/unit: Preparing Food

Learning objective: Match cutting techniques to their descriptions.

Strategy: Use the video to demonstrate and emphasize safe use of knives so that students can spend more time practicing their cutting techniques in the classroom.

Video content: I will describe and demonstrate the safe ways to use knives.

Outline:

1. Store knives safely with blades protected.
2. Keep blade pointed away from you. Hold knife pointed down when carrying.
3. Place object you are cutting on a cutting board, don't hold it in your hand.
4. When cutting, hold item firmly on cutting board with one hand, fingers curled under.
5. Pay attention to what you are doing!

Screen	Visual	Audio
1.	Picture of someone who has just cut themselves while chopping vegetables. (Find a copyright-free photo on the web, or stage your own photo using medical moulage.)	Hi everyone. This looks painful, doesn't it? In our next class we're going to practice our knife skills. In this video, I'll talk about the safety guidelines we all must use when working with knives. Following these guidelines will help us avoid being cut.
2.	Text: 1. Store knives properly in a wood block, not in a drawer. Close up of knives in wood block.	First, make sure your knives are properly stored. Keeping them in a block is best for safety, and the best way to keep them sharp.
3.	Knives jumbled in a drawer.	Here's how knives should NOT be stored. If I reach my hand in here, I've got a good chance of accidentally getting cut by one of those sharp edges.
4.	Text: 2. Keep blade pointed away from you. Hold knife pointed down when carrying. Me demonstrating motion of cutting in the proper direction, holding knife with blade down.	Next, when you hold or use a knife, use the handle and keep the blade pointed away from you. If you're carrying the knife, keep the blade pointed down.
5.	Text: 3. Place object you are cutting on a cutting board, don't hold it in your hand. Me demonstrating with a potato on a cutting board.	Next, when you go to cut something, always place it on a cutting board. This way it is stable and won't slip around while you're trying to cut.
6.	Demonstrate holding it up in the air to cut toward my hand with a red x over the image.	Don't try and use your hand as a cutting board!
7.	Text: 4. When cutting, hold item firmly on cutting board with one hand, fingers curled under. Me demonstrating with the potato.	Our fourth rule is to cut using a cutting board. When you're cutting an item, hold it firmly on your cutting board and curl your fingers under like this. We'll practice this in class, but the idea is that if your fingers are curled under your blade is less likely to slip and cut one of them.
8.	Text: 5. Pay attention to what you are doing! Image: back to the person who cut their finger.	Finally, really important, always pay attention and concentrate on what you are doing when you are working with knives. It just takes a nanosecond for that knife to do some damage.
9.	Me with the butcher block of knives.	Okay, those are our safety guidelines for knife use. Be prepared to follow these in class! I'll be giving a short quiz at the start of class and it's worth 5 points for everyone who can list all 5 of these safety guidelines.

Equipment

Video production requires the use of special equipment, including:

- **Camera** – You can use a standalone camera, a smartphone, tablet, or webcam. You could also create your presentation using existing PowerPoint slides or images.
- **Tripod** – A tripod can help you keep your camera steady while recording.
- **Microphone** – An external microphone is your best option. Good microphones are relatively inexpensive.
- **Software** – Upload your video to your computer, where you can edit it using any tool you prefer. Free video editors include iMovie or Avid Media Composer. You may also need presentation software, screen-casting software (such as Camtasia or free software called CamStudio), or other applications that allow you to create the visuals that you need.

Start with basic tools. As you practice recording and editing videos, you will have a better idea of the equipment and software you will need to create your content.

Recording Tips

Do a test recording to check the quality of your video. The following include tips for recording your video:

- **Practice using your recording equipment**—Make sure the sounds is audible.
- **Use proper lighting**—Make sure viewers can see both you and what you are working with.
- **Keep the background simple**—To eliminate background clutter, consider shooting your video in front of a clean whiteboard or blank wall.
- **Make sure you can work without interruption**—Consider posting a “Do Not Disturb” sign outside your door to eliminate distractions. Listen for distracting background noise.
- **Speak clearly**—Do not speak too slowly or too quickly, and avoid long pauses. Prepare a script and rehearse before recording.
- **Use multiple cameras**—Consider setting up a second camera at a different angle from the first one to capture close-up shots.

Practice by recording a short one- or two-minute lecture or demonstration. Whatever you record, review the audio/video and make notes about what worked well and what you would like to do better next time.

Editing Videos

If you feel intimidated by the video editing process, start by recording and uploading a brief, unedited lecture. However, editing can improve video quality.

Windows Movie Maker is just one of many free and low-cost video editors. As of 2017, Movie Maker is no longer available from Microsoft, but you can download it from many other websites. Many free and low-cost video editing programs exist. Others worth investigating include:

- OpenShot
- Video Pad
- VSDC (Windows)
- iMovie (Mac)
- Lightworks
- Hitfilm Express
- DaVinci Resolve

When editing your video, consider:

- Using the editing tools to remove any portions that are not needed
- Adding titles
- Dividing the video into shorter segments
- Inserting text screens of questions for students to consider

8. Accessibility Requirements for Web-Based Media

When making video and audio files available on the web or in a learning management system such as ctYOU.org, you must ensure that people with hearing or sight impairments can understand the media's content.

The law requires the inclusion of a transcript for audio-only files. You can create an audio transcript using a program such as Microsoft Word. As a bare minimum, you must provide a transcript of a video—even if linking to someone else's content on a site such as YouTube or Vimeo. If the video depicts action or characters other than simple subjects such as talking heads, accessibility compliance requires you provide written descriptions of the visual content so that people with sight-related disabilities can comprehend the on-screen actions in the video.

Video captions divide the transcript into frames so that the timing aligns with the words as they are spoken in the video. Captions allow hearing-impaired viewers to read along while watching the video.

For self-produced media, use the script or storyboard to save time when creating transcripts or captions. For general information about accessibility requirements for web-based media, visit the following websites:

- <http://www.w3.org/2008/06/video-notes>
- <http://www.w3.org/WAI/intro/wcag>
- <https://www.digitalgov.gov/2013/06/26/making-multimedia-section-508-compliant-and-accessible/>

9. Copyright and Fair Use

At times, you may need to use the work of another person when creating your own learning materials. Works in the Public Domain are not protected by copyright and, therefore, are free for anyone to use. Many works (although not all) published by the U.S. federal government are in the Public Domain.

Before duplicating anyone else's work, do some research and make sure you have permission to use it. The Fair Use Doctrine allows instructors to use copyrighted works under specific circumstances without having to seek permission from the copyright owner. However, there are no universal guidelines for determining what constitutes fair use. The decision to use materials must consider four factors:

- **The purpose and character of the use.** Typically, commentary, news reporting, parody, and criticism provide an appropriate context for fair use. Personal, nonprofit, and educational purposes are more likely to fall under fair use. Commercial uses are sometimes allowed, if the content is repurposed.
- **The nature of the work.** Using unpublished or artistic works is less likely to fall under fair use.
- **The amount of the work used.** As a rule of thumb, using 10 percent of the work or less may be permissible. The consideration of fair use becomes less as more of the work is used.
- **The marketability of the work.** Use cannot compete with sales or diminish owner royalties.

If your purpose seems to satisfy fair use criteria, credit the source for text, images, and video for professionalism and credibility. Seek permission to use copyrighted works as early as possible, and keep a copy of the permission information once received. Visit these websites for more information:

- <http://www.loc.gov/teachers/usingprimarysources/copyright.html>
- http://www.halldavidson.net/copyright_chart.pdf
- <http://sites.umuc.edu/library/libhow/copyright.cfm>

The Oklahoma Department of CareerTech offers many other free H5P tutorials, as well as an extensive series on how to use various Moodle plugins. Look for them on ctYOU.org.