26: ADVANCED QUIZ QUESTION TYPES & ENGAGING ACTIVITIES

WELCOME TO THE ADVANCED QUIZ QUESTION TYPES AND ENGAGING ACTIVITIES TUTORIAL!

In this tutorial, you will learn how to create embedded answer (or close) questions and drag-and-drop matching questions using the Moodle Quiz application.

NOTE: The Moodle-based H5P apps allows teachers to create more than a dozen engaging learning assessments, including crossword puzzles, word searches, drag-and-drop activities, memory games, flashcards. To see examples of H5P activities, visit the H5P website: https://h5p.org/content-types-and-applications. Your Moodle server already supports most of these activities, so you do not need to download any special software.

If you have not used one of CareerTech's "How to Moodle" tutorials before, view the instructions for using it as a self-paced tutorial or as a resource for classroom instruction.

This training is a continuation of tutorial 3, *Question Banks and Quizzes*. Before taking this tutorial, you should be familiar with:

- Setting up Moodle question banks and quizzes
- Creating quiz true/false and multiple-choice questions in Moodle
- Writing meaningful assessment questions

To begin, select from the menu below or simply turn to the next page. We recommend you save the quiz questions you create from this tutorial for future reference.

MENU OF TUTORIAL TOPICS

- Embedded Answer or Cloze Questions and Activities
- Drag-and-Drop Matching Questions and Activities
- Summary and Resources

HELPFUL HINTS BEFORE GETTING STARTED

You will need some additional image files to create some of the question types in this module. A zipped folder on ctYOU.org includes all the files needed for this training. Click the **Getting Started** tab in the top navigation bar, and then click **Moodle Training Activities**. Choose the file located under the *Advanced Question Types and Engaging Activities* tutorial. The zipped file contains the following images:

- color-green.png
- color-red.png
- color-violet.png
- color-orange.png

- color-wheel-outline.jpg
- drag-and-drop-house.png
- drag-and-drop-letter.jpg

To use these files, save the zipped folder to your hard drive. Navigate to the location where you saved the zipped folder. Right-mouse-click on the zipped folder and then click to extract the files. This process unzips the Moodle Quiz Tutorial folder so that you can access the individual image files.

In addition, please remember to do the following:

- Watch the video recommended for each question type before attempting the activity for the first time. The written instructions will make much more sense if you watch the video first! ☺
- Questions created in a question bank do not appear in a quiz until you add them to the quiz.
- You can choose to create quiz questions in draft mode. You must place draft questions in "ready" mode before placing them in a quiz.
- If a question you have created does not appear in the question bank, you may have accidentally created it in the default area for the quiz or for the course. Check the default areas, locate the question, and then move it to the proper question bank.
- Although you can delete questions from a quiz, be careful about deleting questions from a question bank. If you do not like a particular question, simply place the question in draft mode or edit the question.

Before beginning the training, set up a separate topic area in your course or training site and name it Advanced Question Types Training. This way, you can create all quizzes and question types in this tutorial in one area.

Note: The Oklahoma CareerTech *Moodle Gradebook* tutorials requires samples quizzes and assignments, so you may want to retain your work for use with other tutorials.

EMBEDDED ANSWER OR CLOZE QUESTIONS

VIDEO DEMONSTRATION:

Watch these brief videos to see demonstrations of the Moodle cloze question type.

http://www.youtube.com/watch?v=shK7fyh3_Rw

https://www.youtube.com/watch?v=1_CtogSCeG4

Note: Video demonstrations were not created by Oklahoma CareerTech, and they may use a different version of Moodle. However, the steps are similar to the ones you will use.

An embedded answer (or cloze) question can be fill-in-the-blank, multiple-choice with a list of possible answers, numerical, or a combination of multiple cloze question types all in one question. Although effective, teachers and trainers tend to use cloze questions less frequently because the answer choices require special coding. Don't let this prevent you from using this type of question—cloze question responses are easy to code!

CREATING A CLOZE QUESTION WITH ONE ANSWER

Follow the steps below to create a cloze question with one answer choice.

Step	Action	Notes
1.	To add cloze questions to an existing question bank, at your course home page with editing turned on, click the **More** link under the course title and choose **Question bank** from the dropdown menu.	The location of this link may vary, depending on the theme used on your Moodle site.
2.	On the **Question bank** page, make sure the correct category appears in the dropdown menu, and then click the **Create a new question** button.	If you completed Question Banks and Quizzes tutorial earlier, select the **Sample Question Bank** you created. If you have not created a question bank, do so now using the instructions in tutorial 3.
3.	From the popup window, click the radio button next to **Embedded answers (Cloze)**, and then click the **Add** button.	

Step	Action	Notes
4.	Type in a question name using your previously determined naming convention.	For training purposes, type: **Sample-04-SAC**.
5.	The cloze question format requires a bit of programming code (see the example of the completed code in the right column). In the **Question text** editing box, along with the question, add the following code in the following order: • an open squiggly bracket { • the point value of the question • a colon • SA (or singleanswer spelled out with no spaces; this is the question type) • a colon • an equal sign • the correct answer • a closed squiggly bracket }	For this example, start with a cloze question that requires a one-word answer. For training purposes, type the following sentence exactly as shown below: **This quiz question demonstrates the {1:SA:=cloze} question type.** As noted in the code, the answer to the above 1-point, single-answer question is the word "cloze." The question coding is case sensitive.
6.	Click the **Decode and verify the question text** button to check your coding.	If you typed something incorrectly, a red error message will display.
7.	Click the **Save changes** button at the bottom of the page if the question was coded correctly, and return to the **Question bank** screen.	
8.	Scroll down the screen and click the **Edit** dropdown menu to the right of the name of your new question and choose **Preview** to view it.	
9.	When viewing the question, click the **Fill in correct responses** button to ensure the question and answer appear correctly.	
10.	Click the **Close preview** button. On the **Question bank** page, click the checkbox to the left of the question and move it to the **Sample Question Bank**, if necessary.	The name of questions not assigned to a question bank appear light gray in color.

CREATING A NUMERICAL CLOZE QUESTION WITH SEVERAL ANSWER CHOICES

Step	Action	Notes
1.	From the **Question bank** screen, click the **Create a new question,** choose **Embedded answers (Cloze)**, and then click the **Add** button.	Make sure you are in the correct category for your quiz.
2.	Name the question according to your established naming convention.	For training purposes, name the question **Sample-05-MCVC** (for multiple-choice vertical cloze).
3.	Type your question in the question editing box. When typing in the code, separate the answer choices using a tilde symbol (~). An equal sign designates the correct answer. The multi-answer cloze question type uses the following abbreviations for question types: • **MCV** – multiple-choice vertical (displays choices vertically) • **MCH** – multiple-choice horizontal (displays choices horizontally) • **MC** – dropdown box (displays choices in a dropdown box) • **NM** – numerical answer	For training purposes, type the following sentence exactly as shown: **If an item is "free," the cost is {1:MCV:$100~$1~=$0~$25}.**
4.	Click the **Decode and verify the question text** button to check your coding.	If you typed something incorrectly, red text will appear.
5.	If the question was coded correctly, click the **Save changes** button and return to the **Question bank** screen.	
6.	From the **Edit** dropdown menu to the right of the name of your new question, choose **Preview** to your question to view it.	
7.	When viewing the question, click the **Fill in correct responses** button to ensure the question and the answer choices display as intended.	

Step	Action	Notes
8.	Click the **Close preview** button. Once back on the question bank screen, make sure the question appears in the correct question bank.	If the question is not in the intended question bank, move it to the correct location.

CREATING A MULTIPLE-ANSWER CLOZE QUESTION

Follow the steps below to create a cloze question with multiple answers in a question bank.

Step	Action	Notes
1.	On the **Question bank** page, click the **Create a new question** button, choose **Embedded answers (Cloze)**, and click the **Add** button.	For example, use the Sample Question Bank you set up earlier.
2.	Name the question according to your established naming convention.	For training purposes, type **Sample-06-MCHC** (for multiple-choice horizontal cloze).
3.	Type in the question code text in the editing box. Use the following abbreviations to designate question types: • **MCV** – multiple-choice vertical • **MCH** – multiple-choice horizontal • **MC** – dropdown box • **NM** – numerical answer	For training purposes, type the following: **Ears of corn grow on a: {1:MCH:stock~=stalk~stick~stump}.** **The hierarchical rank of organisms is Kingdom, Phylum, {1:SA:=Class}, Order, Family, Genus, {1:SA:=Species}.** **You can usually identify poison oak by the number of leaflets. As the saying goes, "Leaves of {1:NM:=3}, let it be."**
4.	Click **Decode and verify the question text** to check your coding.	
5.	If the question was coded correctly, click the **Save changes** button and return to the **Question bank** screen.	
6.	From the **Edit** dropdown menu to the right of the name of your new question, choose **Preview** to your question to view it.	

Step	Action	Notes
7.	When viewing the question, click the **Fill in correct responses** button to ensure the question and the answer choices were typed correctly.	
8.	Click the **Close preview** button. Once back on the question bank screen, make sure the question appears in the correct question bank.	If the question is not in the intended question bank, move it to the correct location.

Note: You can use the cloze question type to create a unit review. Consider using longer passages of text!

DRAG-AND-DROP MATCHING QUESTIONS AND ACTIVITIES

CREATING A DRAG-AND-DROP MATCHING QUESTION (OR ACTIVITY)

The following steps describe how to create a drag-and-drop question.

Step	Action	Notes
1.	On your course page with editing turned on, click the **More** link under the course title and choose **Question bank** from the dropdown menu.	
2.	On the **Question bank** page, click the **Create a new question** button, click the **Drag-and-drop matching** radio button, and click the **Add** button.	
3.	On the Adding Drag-and-Drop Matching Question screen, make sure the correct **Category** appears in the dropdown menu.	For example, use the question bank you set up earlier.
4.	Name the question according to your established naming convention.	For training purposes, type **Sample-07-DDMC** (for drag-and-drop matching cloze).
5.	In the **Question text** editing box, type the instructions the students need to read before completing the quiz or activity.	For training purposes, type: **Place the units of measurement in the proper order from smallest to largest.**

Step	Action	Notes
6.	Set the **Default points** to reflect the value of the question.	Since the practice question will include five answers, **set the Default points to 5.**
7.	Under the **Answers** heading, leave the **Shuffle** checkbox deselected if you want the answers to appear in a certain order.	For this question, do not shuffle the responses.
8.	In each **Question** and **Answer** field, type in the items and answers.	For Question 1, type "Measurement 1 (Smallest)" with the answer "Teaspoon." For Question 2, type "Measurement 2" with the answer "Tablespoon." For Question 3, type "Measurement 3" with the answer "Pint."
9.	Click the **Blanks for 3 more questions** button. Three more question and answer fields will display.	For Question 4, type "Measurement 4" with the answer "Quart." For Question 5, type "Measurement 5 (Largest)" with the answer "Gallon." Leave Question 6 blank.
10.	Under **Multiple tries** heading, if setting up a practice quiz, set **Penalty for each incorrect try** to **0%.**	This ensures students will not be penalized for answering a question incorrectly.
11.	Click the **Save changes** button at the bottom of the page.	
12.	From the **Edit** dropdown menu to the right of the name of your new question, choose **Preview** to your question to view it.	
13.	Click the **Close preview** button. Once back on the question bank screen, make sure the question appears in the correct question bank.	If the question is not in the intended question bank, move it to the correct location.

CREATING A DRAG AND DROP TEXT QUESTION

This question type resembles a cloze drag and drop!

Follow the steps outlined below to create a Drag and Drop Into Text question:

Step	Action	Notes
1.	On your course page with editing turned on, click the **More** link under the course title and choose **Question bank** from the dropdown menu.	
2.	On the **Question bank** page, click the **Create a new question** button, click the **Drag-and-drop into text** radio button, and click the **Add** button.	
3.	Type in a **Question name** using your previously determined naming convention.	For training purposes, type: **Sample-08-DDT** (for drag and drop text).
4.	In the **Question text** editing box, type in a fill-in-the-blank statement and designate the blank spaces with two square brackets. Example: [[ ]]	For training purposes, type the following exactly: **Four score and [[1]] years ago our fathers brought forth on this [[2]], a new nation, conceived in [[3]], and dedicated to the [[4]] that all men are created equal**. Notice that several words have been replaced with numbers surrounded with two square brackets on either side. These will be the answer spaces.

Step	Action	Notes
5.	Set the **Default points** to reflect the number of answers.	In the training example, since this question will include four answers, set the **Default points** to **4**.
6.	In the **Choices** section, choose whether to shuffle answer choices by checking the box.	For this example, **click to shuffle answer** choices since you want the choices to appear in random order.
7.	Type the answers in the numbered choice boxes.	For training purposes, in the Choice 1 answer box type "seven" (without quote marks for this choice and all remaining). For Choice 2, type "continent." For Choice 3, type "Liberty." For Choice 4, type "proposition." For Choice 5, type "Freedom." For Choice 6, type "seventeen."
8.	Click the **Blanks for 3 more choices** button to add blanks for more choices as necessary and add the remaining answers.	For the training example, you will click the **Blanks for 3 more choices** button multiple times to add blanks for more choices as needed. In the Choice 7 answer box type "planet." For Choice 8, type "notion." For Choice 9, type "idea." For Choice 10, type "eleven." For Choice 11, type "proposal." For Choice 12, type "Life." For Choice 13, type "world." For Choice 14, type "thought." Leave Choice 15 blank.
9.	Click the **Save changes** button at the bottom of the page.	
10.	From the **Edit** dropdown menu to the right of the name of your new question, choose **Preview** to your question to view it.	
11.	Click the **Close preview** button. Once back on the question bank screen, make sure the question appears in the correct question bank.	If the question is not in the intended question bank, move it to the correct location.

CREATING A DRAG AND DROP MARKERS QUESTION ACTIVITY

In this exercise, you will create a quiz question (or activity) that requires the student to drag labels onto an image. You will need the **drag-and-drop-letter.jpg** file zipped with these instructions on ctYOU.org.

Follow the steps outlined below to add a Drag and Drop Marker question to an existing question bank.

Step	Action	Notes
1.	On your course page with editing turned on, click the **More** link under the course title and choose **Question bank** from the dropdown menu.	
2.	On the **Question bank** page, click the **Create a new question** button, click the **Drag-and-drop markers** radio button, and click the **Add** button.	
3.	Make sure the correct category appears in the dropdown menu, and then type in a question name using your previously determined naming convention.	For training purposes, type: **Sample-09-DDM** (for drag-and-drop marker).
4.	In the **Question text** field, type instructions that explain what the students need to do to complete the question.	For training purposes, type the following: Drag each round target marker to the number that corresponds with its correct location on the business letter. (**Note:** Properly position the round marker, not the label.)
5.	Type in the **Default points** to reflect the number of answers in your activity.	For this example, the question is worth **4 points**.

Step	Action	Notes
6.	In the **Preview** section, upload the first image for the activity. Notice that a grid has appears over the image. Each small square increment represents 10 pixels. The slightly thicker green lines represent 100 pixels. By looking at the lines, you can see the image is approximately 270x380 pixels.	For the training assignment, upload the file **drag-and-drop-letter.jpg**, which is available in a zipped file on ctYOU.org in the list of Moodle training tutorials. Once uploaded, the image should appear on the question's editing screen.
7.	Under **Markers**, click to enable the **Shuffle drag items each time question is attempted** feature. Type in the label for each marker.	For the training activity: • For Marker 1, type "Heading" (with no quote marks). • For Marker 2, type "Greeting." • For Marker 3, type "Body." • For Marker 4, type "Close and Signature."
8.	In the **Drop zones** section, indicate the coordinates for the markers. For a **rectangle**, first define the top left coordinate on first the x-axis (horizontally from the left edge) and then the y-axis (vertically down from the top). Then type in the length and height of the rectangle. For a **circle**, start by defining the approximate center point, x-axis (horizontally from the left edge) by y-axis (vertically down from the top). The third number indicates the diameter of the circle. A comma and a semicolon separate these numbers for both a circle and a rectangle. **Note:** The YouTube videos for this question type provide clarification.	For the training activity: • For **Drop zone 1** shape, select **Rectangle**. In the Coordinates box, type: 133,30;110,50 From the Marker dropdown, select **Heading**. • For **Drop zone 2**, select **Rectangle**. In the Coordinates box, type: 18,75;110,50 Select the **Greeting** marker. • For **Drop zone 3**, select **Circle**. In the Coordinates box, type: 130,200;100 Select the **Body** marker. • For **Drop zone 4**, select **Rectangle**. In the Coordinates box, type: 120,290;130,50 Select the **Close and Signature** marker.
9.	From the **Edit** dropdown menu to the right of the name of your new question, choose **Preview** to your question to view it.	
10.	Click the **Fill in correct responses** button to ensure the questions and answers were typed correctly.	

Step	Action	Notes
11.	Click the **Close preview** button. Once back on the question bank screen, make sure the question appears in the correct question bank.	If the question is not in the intended question bank, move it to the correct location.

Now, try creating a drag-and-drop markers activity on your own using the **drag-and-drop-house.jpg** image. Follow the steps above and name the question **Sample-10-DDM**. Define rectangles for the chimney, window, and door markers. Use a circle to mark the bush.

CREATING A DRAG AND DROP ONTO IMAGE ACTIVITY

Normally, the drag-and-drop image question type requires you to prepare several images in advance. For training purposes, this tutorial includes several image files: color-wheel-outline.jpg, color-red.png, color-orange.png, color-green.png, and color-violet.png.

VIDEO DEMONSTRATION:

Watch this brief video to see a demonstration showing how to create a drag-and-drop onto image activity.

https://www.youtube.com/watch?v=ZBZtPfMyMVE

Note: Video demonstrations were not created by Oklahoma CareerTech, and they may use a different version of Moodle. However, the steps are similar to the ones you will use.

Follow the steps outlined below to create a Drag and Drop Onto Image question type or activity:

Step	Action	Notes
1.	On your course page with editing turned on, click the **More** link under the course title and choose **Question bank** from the dropdown menu.	

Step	Action	Notes
2.	On the **Question bank** page, click the **Create a new question** button, click the **Drag and drop onto image** radio button, and click the **Add** button.	
3.	Make sure the question is in the intended category. Type in a question name using your previously determined naming convention.	For training purposes, type: **Sample-11-DDI** (for drag and drop image).
4.	In the **Question text** field, type in the instructions that students need to complete the activity.	For training purposes, type: **Complete the color wheel by dragging and dropping each colored circle to its proper location.**
5.	Set the default points to reflect the number of answers for your activity.	For this activity, set the default points to **4**.
6.	Under **Background image**, select an image.	For training purposes, upload the file **color-wheel-outline.jpg** (included in the zipped file for this tutorial).
7.	Scroll down to the **Draggable items** and choose a file for each item in the activity.	Under **Draggable item 1**, select **Draggable image** in the dropdown menu. Add the file color-red.png. Add orange to **Draggable item** 2, **green to item 3**, and **violet to item 4**.
8.	Scroll to the **Drop zone** section. Select an image for each drop zone.	For **Drop zone 1**, select **color-red.png** in the **Draggable item** dropdown menu. For **Drop zone 2**, select **color-orange.png**. For **Drop zone 3**, select **color-green.png**. For **Drop zone 4**, select **color-violet.png**.
9.	Scroll up to view the background image. Drag each item to its drop zone.	In this case, scroll back up to view the color wheel background image.
10.	Drag the colored circles to the appropriate spaces on the color wheel.	Drag the orange circle to the space above the yellow circle. Drag the red circle to the top. Drag the violet circle to the space in the upper right. Drag the green circle to the remaining space at the bottom of the color wheel.
11.	Click the **Save changes and continue editing** button at the bottom of the screen.	Notice that the pixel coordinates were automatically calculated and in the drop zones.

Step	Action	Notes
12.	Preview the item by clicking Edit > Preview.	Make sure the item displays properly.
13.	Close the preview. Make sure the question appears in the correct question bank.	If the question is not in the right location, move it to the correct location.

SUMMARY AND RESOURCES

This tutorial provided the steps to create a question bank and set up cloze and drag and drop questions. Take the time to experiment with other question types and build your own test banks.

To learn more about these topics, visit:

- Moodle.org
- https://docs.moodle.org/403/en/Question_bank
- https://docs.moodle.org/403/en/Quiz_activity
- https://docs.moodle.org/403/en/Embedded_Answers_(Cloze)_question_type
- https://docs.moodle.org/403/en/Drag_and_drop_matching_question_type
- https://docs.moodle.org/403/en/Drag_and_drop_into_text_question_type
- https://docs.moodle.org/403/en/Drag_and_drop_markers_question_type
- https://docs.moodle.org/403/en/Drag_and_drop_onto_image_question_type

HOW TO USE THIS TUTORIAL:

Use this tutorial as a self-paced lesson or as a lesson plan in a classroom setting.

- **As a self-paced lesson*.***

  If this is a completely new skill for you, work through the tutorial from beginning to end. However, if you have some prior experience with the topic, use the menu hyperlinks on page one to jump to a topic that you want to learn.

  Most topics include hyperlinks to video demonstrations. While the videos are useful, you don't have to watch them. All the information you need is listed in the tutorial text and step instructions.

  Use the exercises at the end of the tutorial to practice the skill. This will help to correct any misunderstandings or mistakes before you use the skill in your classroom.

- **As a lesson-plan for a classroom*.***

  When teaching this skill in a classroom, use the tutorial for:

  - ✓ **Motivation**—Use the tutorial introduction as a springboard for a deeper exploration of how instructors might use this functionality in their classrooms. Encourage discussion and contributions from your students.
  - ✓ **Demonstration**—Once your learners understand the purpose and pedagogical value of the functionality, demonstrate the steps of the relevant tasks as listed in the tutorial, using your computer and a projection system.
  - ✓ **Practice**—Use the tutorial exercises for student practice. Assist as necessary.
  - ✓ **Reference**—Encourage learners to use the tutorial post-session as a reference when using the functionality.

Return to the tutorial [main menu](#).

We would appreciate feedback on this tutorial! Please contact the ctYOU.org Support Staff listed under Contact Info on the ctYOU.org top navigation bar.