True/False Assessment Questions

True/False Assessment question types are probably the most flexible of all assessment question types. Firstly, they are totally customizable in how they appear, but also because they allow users to make multiple selections, or change their mind, before submitting an answer.

The following screens illustrate some examples of how true/false assessment questions can be used.

Example 1

Example 2
In **Example 1**, five options have been presented as possible answers. In this case, two answers are correct. We can set this up so that the user must select both the correct answers before they get this objective correct.

In **Example 2**, the answer is either true or false. In this case, however, we do not want the user to be able to select true and false, so we can set this up so that when the user selects one option, the other option(s) is deselected automatically.

We’ll start with **Example 1**.

The first thing we need to do is to create the *true/false* object. To start with, this can be anything – a button, a photo, a graphic you create – even a text object. In this example, we are going to create a diamond using the tools provided in KnowledgePresenter as the basis for our *true/false* object.

First, we create a triangle, by selecting the **Diamond** tool in the main toolbar.

![Diamond tool in KnowledgePresenter](image)

We then draw our diamond on the canvas using the mouse. Our canvas will look as below:

![Assessment Example](image)

With the diamond still selected, we select the **Event** command from the **Objects** menu.
This time, however, we select from the When listbox the option True/False State Button, as seen above. You cannot select anything other than Check Answer from the Perform This Action listbox, and this will be selected automatically, so you can leave this alone.

Note that when this option is selected, a new button appears, called Current ‘True’ Overlay. Next to this button is the default ‘True’ image. This is the image that will alternately be superimposed and hidden on the object as the user clicks on it. Using the Select New ‘True’ State Overlay… button, you can select a new image to be used – and there are number provided by default – but you can select your own image if you like.

Based on the default Current ‘True’ Overlay image, our object will appear as follows when this lesson is exported, and the user clicks on it.

- Our current image in its off, or false state.
- Our current image in its on, or true state.

When you return to the canvas, the image will look as follows:
The ‘True’ image is superimposed on our object, so we can see what it might look like when the user selects it. This true/false image is now complete. You can now create the other true/false images for this question. The easiest way to do this is to select then Edit / Copy command (and then the Currently Selected Object(s) option), and then the Edit / Paste command (and the KnowledgePresenter Object(s) option). This will paste an exact copy of this object over the current object (you’ll have to move it to a new position).

When copying and pasting a true/false object, you’ll always be asked if you want to give this object an alias, by the following dialog box. We’ll get to why this occurs in a moment – for now, just click on OK to accept the suggested name.

Either copy and paste or create as many true/false objects as you need for this question. Below, we’ve created five of them. Each of these, in this case, are identical – but they need not be in your assessment.
The next step is to create the text objects next to each true/false object so that the user understand what each choice means. To do this, just use the Insert Text button in the main toolbar, and create five text objects, and place them next to the appropriate true/false groups.

Our screen will now appear as below.
Now we determine which ones of these **true/false** objects represent the correct answer. In this case, the 3rd and the 5th **true/false** objects are correct, so we have to ensure that these are scored. You can either select each object individually, and go back to the Events dialog box, or for the very latest version of KnowledgePresenter, select the two correct true/false objects (click on the first one, hold down the *Shift* key and click on the second one), and select the **Score This Object** command from the **Scoring** menu.

Your canvas will now look as below – note the scored objects now have the **TRUEFALSE** text at the top now have it in white writing with a red background – indicating a scored, or correct answer.

Finally, when creating an assessment question of this type, you need to add a button or some other object that allows the user to submit their answer. This is because when the user clicks on a true/false object when running this assessment, it alternately turns that object from true to false, but it does not move to another step.

When you create the button or other object, just give it the event **Go to Next Step**. KnowledgePresenter will automatically take a note of what options the user had selected, and whether they were correct or incorrect.
**The Object Alias**

When creating **true/false** objects, it is wise to ensure that these objects are named in a meaningful way. Actually, this is optional, and will not affect scoring in any way, but it does affect what information KnowledgePresenter reports to a Learning Management System (or displays on screen if required) when it reports on how the user went with this objective.

To change the alias of an object, select that object, and select the **Object Alias** button at the bottom left of the screen.

The following dialog box appears.

This will display the current alias of the object. As you can see, the name **Diamond 006** is not really that meaningful. It should be changed to reflect the option it is representing. Below, we’ve renamed the top true/false object to **Word Processing**. This should be repeated with each of the **true/false** objects on this step so that they all have meaningful names.

By naming objects in this way, KnowlegePresenter will know, and reflect when necessary, that the correct answer for the example we are working with is E-learning and Presentation. If the user selects the Text Editing option, then the reporting may look something like this:

**Objective:** KnowledgePresenter is used for:  
**User Response:** Text Editing  
**Correct Response:** E-learning and Presentation  
**Score:** 0

As you can see, this looks a lot better and more understandable than:

**Objective:** KnowledgePresenter is used for:  
**User Response:** Diamond 006  
**Correct Response:** Diamond 008 and Diamond 009  
**Score:** 0
In Example 2, below, the answer is either true or false. In this case, however, we do not want the user to be able to select true and false, so we can set this up so that when the user selects one option, the other option(s) is deselected automatically. The process for setting up this sort of True/False object is the same, except that there is one extra step – for mutually exclusive options, you simply select each object you want to be mutually exclusive, and create an Object Group for these options. This is achieved by selecting the Objectives / Object Question Type / True/False Group Name. Any objects that are contained in the same True/False group on this step will be mutually exclusive.

**Assessment Example**

True or False: KnowledgePresenter is used for: e-learning:

- True
- False

**Example 2**

**Partially Correct Answers**

Using this type of question, it may often happen that there are several possible correct answers to a question.

You can ask KP to operate in one of two ways regarding this. These are:

- Award no points unless the user selects all the correct answers, or
- Award points for each correctly selected answer.

The default operation is that no points are awarded unless all possible items are sorted correctly. To allow partial points to be awarded, ensure the Allow Partial Scoring command from the Assessments menu has been selected before exporting.

**True/False Feedback**

Providing feedback for true/false assessment questions is in some ways a little different to providing feedback for hotspot and multiple choice questions, but in some ways quite similar. If a button is added to this step which allows the user to move to the next step, then as we mentioned, KnowledgePresenter will take a full check of what the user selected, and score them appropriately, but it will provide no feedback.
In the screen above, we added a button which we called **Submit Answer** to the bottom of the screen. The user must select this button to submit their answer. There are two main events or actions we can assign to this button:

- **Go to Next Step.** KnowledgePresenter keeps a track of user selections, scores appropriately, but provides no feedback.
- **Check Answer.** Using this event, you get to determine what happens when the user gets the answer right or wrong. This may be to display appropriate feedback, go to different steps – or a combination of both. Again, KnowledgePresenter will always keep a track of what the user answered.

Below you can see the event screen for this button. Note that **Check answer** is selected in the **Action** listbox.
Above, you can see the many options available when you select the Check Answer option from the Perform This Action listbox (note that this selection is only a valid one for true/false, freeform text entry, target, and drag and drop questions – the types of questions where a submit button is required).

As you can see, you get to decide:

- Whether to display a message if the user does not make any selection before submitting an answer (Warning to display if no option selected option). This is optional. If this is left empty, and the user submits before selecting an option, they are assumed to have got this incorrect.
- What to do if the user gets the answer incorrect (If user answer is incorrect option).
- What to do if the user gets the answer correct (If user answer is incorrect option).
- Display some feedback if the user gets the question incorrect (Feedback for incorrect answer option). This is optional.
- Display some feedback if the user gets the question correct (Feedback for correct answer option). This is optional.
- You can also determine whether to display cancel buttons on the message box (if feedback is used), so that the user can select to skip the question, or try it again.
- You can select a number of Incorrect Attempts Allowed. If the user reaches this limit, the lesson will move to the next step after this message below is displayed.
- You can enter a message that will appear should the user reach the maximum number of attempts allowed (Feedback for incorrect attempts limit). If the user reaches this limit, the lesson will move to the next step after this message is displayed.

Using the above options, in a variety of combinations, you can perform almost any action, or provide any feedback based on an incorrect or correct answer. What you do is up to you!