

## **ScienceWord 6.5**

**Creating of computer-based evaluation tests**

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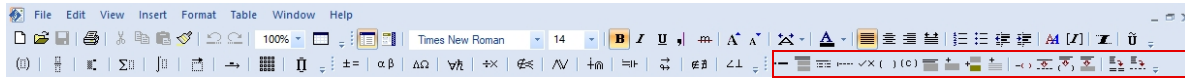
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## I - Evaluation tests

The concept is based on using **ScienceWord** to create the evaluation test file ( ScienceWord file ) and to use another application called **Skill** to carry out the test.

## II - Creating an evaluation test with ScienceWord

Open ScienceWord and click on Insert menu. The tools for creating an evaluation test are shown as follow:

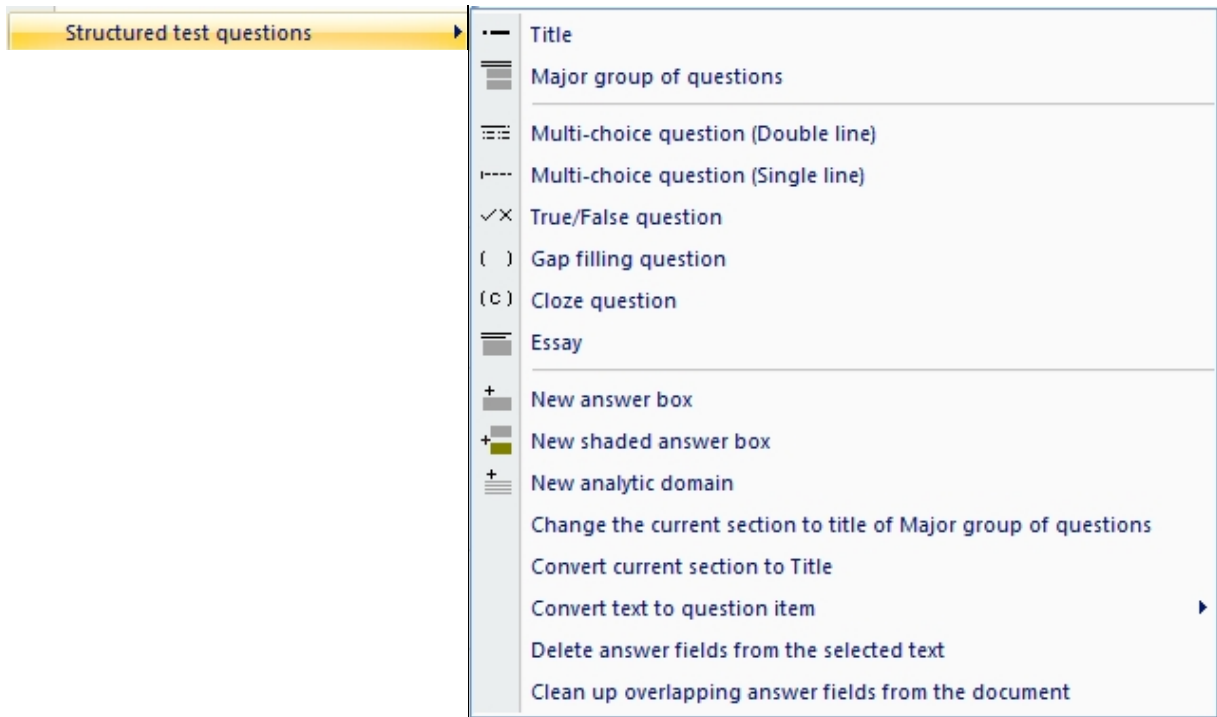


Test builder toolbar

From left to right you can identify the following buttons:


1. Title;
2. Major group of questions;
3. Multi-choice type of question ( double line ) ;
4. Multi-choice type of question ( single line ) ;
5. Judgment type of question;
6. Gap filling type of question;
7. Cloze question;
8. Essay;
9. New answer box;
10. New Answer shadow box;
11. New analytic domain;
12. Convert a selection to a choice question answer field;
13. Convert a selection to choice question items;
14. Convert to gap filling question;
15. Convert to essay;
16. Convert to 2-column selection;
17. Convert to 4-column selection.

By clicking on "Structured test questions" in the Insert menu, you can access the following additional list of tools for creating assessment tests:



### III. Sections of a test

#### 1) Creating section Title

To create a « Titre » section, click on the  icon in the test builder toolbar.

A title is the largest section of a test that can be subdivided into subsections of major groups of questions ( see below in 2 ) ) or simply ordinary sections made up of all types of questions.

In the "title" section, all kinds of information about the questions can also be given.

When a test containing « Title » sections is submitted by the Skill application, the result is displayed by « Title » .

#### 2) Creation of a section « Major group of questions »

To create a major question group section, click on the  icon in the test creation toolbar..

The use of « Major Group of Questions » is very useful when a test needs to be divided into sections, topics, or any other type of differentiation. The « Major Group of Questions » sections are made from any combination of the other questions. The user can check below to see how to create multiple choice questions, a judgment question, etc.

To create a « Major Question Group » section, click on Major Question Group in the "Insert" menu.

When a test containing « Major Group of Questions » sections is submitted by the Skill application, the result is displayed by « Major Group of Questions » .

#### 3) Inserting a continuous section

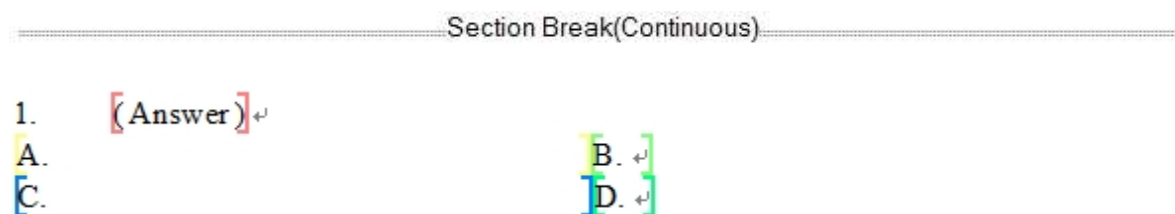
In general, any type of main question is automatically created in a continuous section.

To turn a text into a test question, you need to create a continuous section that contains this text; in this case, you simply place the cursor at the beginning of the text, and then use the shortcut key for the continuous section break which is "Ctrl+Shift+Enter". It is also customary to use a continuous section to create a differentiation of the associated questions of a test question ( see 6) New answer box ).

### IV. Creating questions

#### 1) Creating a multi-choice type of question

Click from Insert menu on "**multi-choice type of question ( double line )**". Then a section ( break continuous type ) is automatically created with a modification of page size while the question number and the choices are displayed as follow:



The number "1." is a numbering that is the first question ( or exercise ) . Then you have to

edit the question in front of "1."

- The choices are A, B, C and D. Then you have to edit in every choice box its content.
- The Answer has to be defined and should to be A or B or C or D. For example if the correct answer is B, then you have to replace **Answer** with the letter B.

Let's carry out the example as shown below:

---

Section Break(Continuous)

---

1. Let us consider two sets:  $H = \{ 1,2,3,4,5,6,9 \}$  ,  $G = \{ 2,4, 6,7,8 \}$  .

We define  $H - G$  as follows:  $H - G = \{ x \setminus x \in H \text{ but } x \notin G \}$  . Then  $H - G =$  **(B)**

A. { 1,2 }      B. { 1,3,5,9 }  
C. { 1,3,5 }      D. { 7,8 }

Click in the answer box ( B ) , then right-click. In the contextual menu that opens up, click on "**Test properties**". Type 5 in the **value** field to set the score of the correct answer.

Now save your document as "Test No1".

Open **Skill** application and from **Skill**, open "Test No1"

As you can notice it, the answer box in empty.

To make any selection, move the mouse towards your choice and note that the pointer of the mouse turns into a hand. For example, click on **B. { 1,3,5,9 }** and note that B appears automatically in the answer box.

Then click on the "Submit" button to see the evaluation result.

### Note :

- ✧ In case you need a limited number of choices such as 3 or 2, then just delete the unnecessary choices.
- ✧ In the case where you need more choices such as 5 or 6, etc., then simply copy a choice and then paste as many times as needed. Another method is to edit the letters to be assigned to the additional choices, then select them all and click on the "Convert a selection to choice question items" tool.
- ✧ To create a single-line multiple choice question, simply click on the "Multiple Choice Question ( Single Line )" tool in the test builder toolbar.
- ✧ In the case of a multiple choice question, the user will notice that the spacing between choices is the result of a modifiable tab.
- ✧ To create a multiple choice question on several lines ( more than two lines ) , simply edit the letter to be assigned to the choices on each line, then select them and click on the "Convert a selection to choice question items" tool. This must be done in a continuous section.

## 2) Creating a judgment type of question

Click from Insert menu on "**Judgment type of question**". Then a section ( break continuous type) is automatically created with a modification of page size while the question number and the choices are displayed as follow:

---

Section Break(Continuous)

---

2. [ True False ]<sup>↕</sup>

Here the question ( or exercise ) number is 2 and the choices are **T** or **F**. To set the correct answer, you have to select the item "True False" and replace it with **T** ( which means true ) or **F** ( which means false ) . To change the setting, hold down Ctrl key and use the mouse to click. But, you can always select your choice and type the appropriate letter ( **T** or **F** ) to make the change. Instead of **T** and **F** you may consider **A** ( True ) and **B** ( False ).

To set the Test attributes, click in the answer box, then right-click and from the contextual menu click on "**Test properties**".

## 3) Creating a gap filling type of question

Click from Insert menu on "**Gap filling type of question**". Then a section ( break continuous type) is automatically created with a modification of page size while the question number and the gap to be filled are displayed as follow:

---

Section Break(Continuous)

---

3. [ Answer gap filling type ]<sup>↕</sup>

Here the question ( or exercise ) number is 3. To set the correct answer, you have to select the item "[ Answer gap filling type ]" and replace it with the **appropriate answer**.

When the answer is an expression like " $1+\sqrt{2}$ ", you need to consider the second way of writing the answer which is " $\sqrt{2}+1$ ". In this case you have to fill the gap with two expressions separated with a vertical bar ( meaning **or** ), as follows: " $1+\sqrt{2} \mid \sqrt{2}+1$ ".

To set the Test attributes, click in the answer box, then right-click and from the contextual menu click on "**Test properties**".

## 4) Creating cloze questions

Click from Insert menu on "**Cloze question**". Then a section ( break continuous type) is automatically created with a modification of page size while the question number, the answer box and the choices are displayed as follow:

[ 1. [ A ] A. B. C. D. ]<sup>↕</sup>

It shows as default A as the good choice ( answer box [ A ] ) . If you are setting the good choice as B, then you have just to replace A by B in the answer box, that is: ([ B ] ) . Then

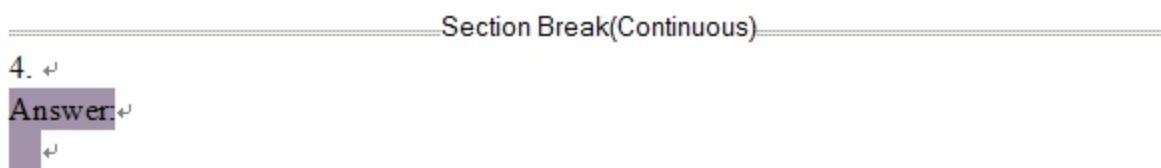
type before each choice A, B, C and D the corresponding texts.

To set the Test attributes, click in the answer box , then right-click and from the contextual menu click on "**Test properties**".

Let note that the question number can be modified or even deleted if needed.

### 5) Creating an Essay type of question

Click from Insert menu on "**Essay**". Then a section ( break continuous type) is automatically created with a modification of page size while the question number and the answer box are displayed as follow:



Here the question ( or exercise ) number is 4. To set the correct answer, you have to write it in the **answer box**.

To set the Test attributes, click in the answer box, then right-click and from the contextual menu click on "**Test properties**".

#### a.) Hybrid box of a response box

To create a **hybrid answer box** click on **New shaded answer box**. A **hybrid answer box** is an answer box that allows to accommodate an auxiliary support ( table, figure to be annotated, a dynamic construction to be commented, etc ). It is associated with the previous answer box that remains invisible to the student ( or candidate ) and contains the answer to the problem laid out in the **hybrid answer box**.

#### b.) Type of contents supported by answer boxes

- Any type of scientific text including **formulæ** can be written in any question type of answer box.
- **Images** can be inserted in **any question type** of answer box.
- **Images and drawing** can be placed inside or outside of the box of "**Answer based type of question** " including any kind of object layout style as shown below.



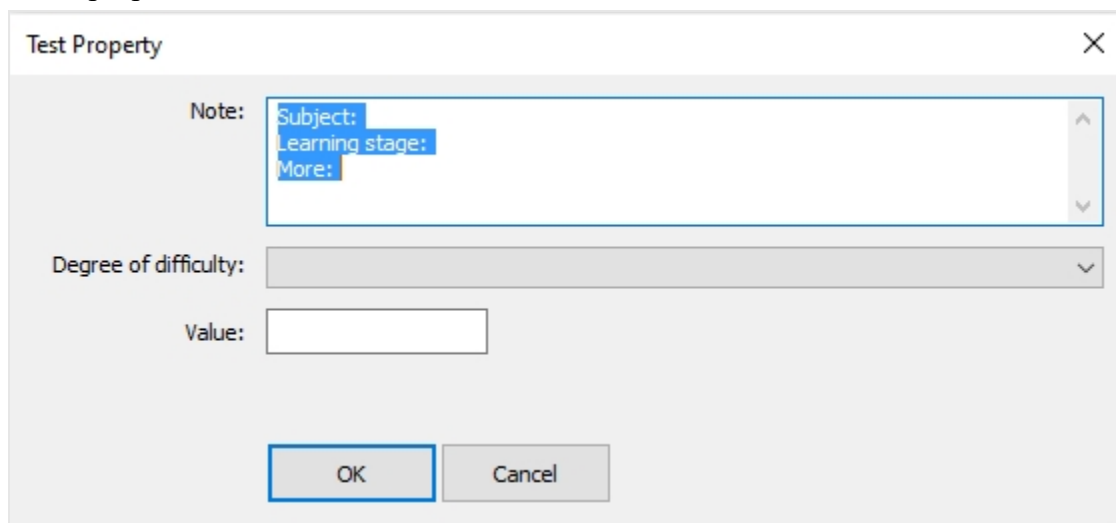
### 6) The New Answer Box

Once a test question is created for a problem, it is possible to create other test questions related to the same problem. To create these related test questions we use the "**+** New answer box" tool. However, it is possible to create a differentiation of related test questions by inserting a continuous section break between them. The shortcut key for the continuous

section break is "Ctrl+Shift+Enter".

### 7) Test properties dialog box

The test attributes can be set in "Test" properties dialog box shown below. To access to this dialog box, right-click from the answer box and click in the contextual menu that opens up on "Test properties".



The dialog box offers various items related to the test result. This includes for example **value** that is the **score** of the related question or **hyperlink** that can be created to link to a document or a web page for additional information.

A **test result** is seen through **Skill** application where the related test has to be completed and submitted; this will be discussed in the next chapter.

### V - Numbering of type of main or associated questions types

Main test questions are automatically numbered with the numbers 1, 2, ..., by default; the user can replace them with a lower or upper case letter of the English alphabet. The associated questions that are produced with the "New answer box" tool appear by default without numbering. To number them, simply differentiate them with continuous section breaks and follow the numbering rule described in the table below. Remember that the shortcut key for the continuous section break is "Ctrl+Shift+Enter".



***Very important note : The numbering of the main or associated question types is done in the first paragraph of a continuous section! Even an empty paragraph before the numbering is not allowed!***




Test number style	Examples
Number + dot + space ( required ) or Letter + dot + space ( required )	1. Content of the test... a. Content of the test... A. Content of the test...



Number + comma + space ( required ) or Letter + comma + space ( required )	1, Content of the test... a, Content of the test... A, Content of the test...
( Number ) + space ( required ) or ( Letter ) + space ( required )	( 1 ) Content of the test... ( a ) Content of the test... ( A ) Content of the test...
( Number ) + period + space ( required ) or ( Letter ) + period + space ( required )	( 1 ) . Content of the test... ( a ) . Content of the test... ( A ) . Content of the test...
( Number ) + comma + space ( required ) or ( Letter ) + comma + space ( required )	( 1 ) , Content of the test... ( a ) , Content of the test... ( A ) , Content of the test...

## VI - Completing a test and submitting the result with Skill application

When a test is created with " ScienceWord" application, it has to be carried out with " Skill" application. The general process is described as follows:

- i. Double-click on **Skill** icon .
- ii. Click on the " Open" button to open a test created with ScienceWord.
- iii. Carry out the test as follows:
  - For any multi-choice type of questions, use the mouse to select your choice **A**, or **B**, or **C**, etc. You cannot write or draw.
  - For any judgment type of question, use the mouse to click in the "empty" answer box to get automatically either **T** or **F** or ( **A** or **B** ). You cannot write or draw..
  - For any type of gap filling question, click in the "empty" answer box. Then the formula and symbols pane opens up automatically. Write the appropriate answer. But you cannot draw.
  - For any cloze type of questions, use the mouse to select your choice **A**, or **B**, or C, etc. You cannot write or draw.
  - For any type of Essay, click in the answer box. Then, the formula and symbols pane opens up automatically. Then, write the solution while you are also allowed to draw.
- iv. When you are done, click on the " Submit" button to see the evaluation result