

## Instructions to Measure Course ILOs from Electronic Exams using Moodle.

This document assumes that you have a question bank for your course entered in the Moodle system and you want to measure your course ILOs (or some of them) through electronic exam questions. Hence, the figure shown below shows the status where each exam question has a unique number in the question name field.

T	Question	Created by
		First name / Surname / Date
<input type="checkbox"/>	01	Ahmad G. Shtayyat 16 September 2020, 10:57 AM
<input type="checkbox"/>	02	Ahmad G. Shtayyat 16 September 2020, 10:57 AM
<input type="checkbox"/>	03	Ahmad G. Shtayyat 16 September 2020, 10:57 AM
<input type="checkbox"/>	04	Ahmad G. Shtayyat 16 September 2020, 10:57 AM
<input type="checkbox"/>	05	Ahmad G. Shtayyat 16 September 2020, 10:57 AM

Please perform the following steps to measure course ILOs from electronic exams performed on Moodle.

1- Edit each question, by selecting the edit icon.  (see the figure below)

### Editing a Multiple choice question [e](#)

► Expand all

**General**

Current category: Future tenses (10)  Use this category

Save in category: Future tenses (10)

Question name: 01

Question text:   
The lesson .....soon so we need to get back to class.

2- Change the question number to include the ILO it measures in the following format:

- a. Program ILO number followed by :
- b. Course ILO number followed by:
- c. Question number

The J and K criteria includes one of the following keys which specifies the program.

Program Name	Key
Computer Science	CS
Computer Information System	CIS
Software Engineering	SE
Computer Network	CN

For Example:

- A.8:K1:4
- CIS-J.1:K2:8

[▶ Expand all](#)

**General**

Current category: New Exam English 20191 (5)  Use this category

Save in category: New Exam English 20191 (5)

Question name: **A.7:K1:1**

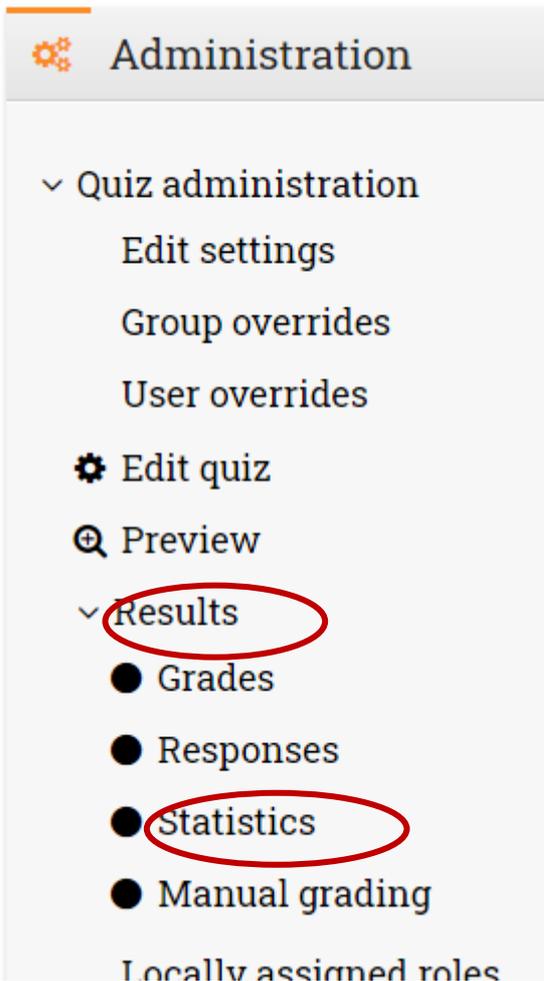
Question text:   
When creating a network, users might consider sharing  
عند إنشاء شبكة ، قد يفكر المستخدمون في المشاركة

3- Save the question

**SAVE CHANGES AND CONTINUE EDITING**  Preview

**SAVE CHANGES** **CANCEL**

4- After conducting the exam, select the Statistics option in the results tab. (see the figure below).



5- Download the Item analysis as an Excel file. (See the figure below)

Quiz structure analysis

Download table data as

Q#	Question name	Attempts	Facility index	Standard deviation	Random guess score	Intended weight	Effective weight	Discrimination index	Discriminative efficiency
1	Random (ILO3:3)	2	50.00%	70.71%		14.29%		-100.00%	-10000.00%
2	Random (ILO3:3)	2	50.00%	70.71%		14.29%		-100.00%	-10000.00%
Range of statistics for these questions		1 - 2	0.00% - 100.00%		25.00% - 25.00%	14.29% - 14.29%			
3	IL01:2	2	0.00%	0.00%	25.00%	14.29%			
4	IL01:3	2	0.00%	0.00%	25.00%	14.29%			
5	IL04:1	2	50.00%	70.71%	25.00%	14.29%		-100.00%	-10000.00%
6	IL04:3	2	50.00%	70.71%	25.00%	14.29%		-100.00%	-10000.00%
7	IL05:2	2	0.00%	0.00%	25.00%	14.29%			

6- Open the Excel file. Then open the second tab (Quiz structure analysis).It will contain each question in the exam including the following information: question name, question text, percentage of students answers for each question option including the correct answer and other statistics.

	A	B	C	D	E	F	G	H	I	J	K	L	N
1	Q#	Question type	Question name	Attempts	Facility index	Standard	Random g	Intended	Effective v	Discrimina	Discriminative efficiency		
2		1 Random	Random (ILO3:3)	2	50.00%	70.71%		14.29%		-100.00%	-10000.00%		
3		2 Random	Random (ILO3:3)	2	50.00%	70.71%		14.29%		-100.00%	-10000.00%		
4	2.1	Multiple choice	IT019	1	100.00%		25.00%	14.29%					
5	2.2	Multiple choice	IT036	2	0.00%	0.00%	25.00%	14.29%					
6	2.3	Multiple choice	Q39	1	100.00%		25.00%	14.29%					
7		3 Multiple choice	ILO1:2	2	0.00%	0.00%	25.00%	14.29%					
8		4 Multiple choice	ILO1:3	2	0.00%	0.00%	25.00%	14.29%					
9		5 Multiple choice	ILO4:1	2	50.00%	70.71%	25.00%	14.29%		-100.00%	-10000.00%		
10		6 Multiple choice	ILO4:3	2	50.00%	70.71%	25.00%	14.29%		-100.00%	-10000.00%		
11		7 Multiple choice	ILO5:2	2	0.00%	0.00%	25.00%	14.29%					
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Quiz structure analysis