

I-TA'LEEMC QUIZ SERIES

Analysing The Questions

...and learn how your questions are doing!

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PREFACE

When the Covid-19 pandemic hit Malaysia in March 2020, the higher education institutions were closed following the Movement Control Order. The teaching and learning including assessment for and of learning were performed online. The Emergency Remote Teaching and Learning (ERTL) Exam Unit was initiated to research and establish an optimum online assessment system for the department. We were then ready to befriend i-Ta'leEMc, which was foreign to us. The journey was long and arduous and we wish that this e-Book shall help our comrades to pave the pathway to optimize the Quiz feature in i-TaleEMc for the online assessment purpose.

WAN FATEIN NABEILA WAN OMAR

ACKNOWLEDGEMENT

All praise to Allah SWT, the Most Gracious and Most Merciful.

I would like to extend my sincerest thank you to Prof Imad Ad-Deen-our beloved Head of Department, Dr Soraya-the then-chief of ERTL Exam Unit-,and members of the department for the opportunity to be part of the team. Special appreciation to Dr Mira Kartiwi, Prof Noor Lide and their team in Center of Professional Development for always helping us out when we are in need. And all my buddies, mentors, colleagues, brothers and sisters of ERTL exam unit, your beautiful support and friendship is what makes me move forward.

I am glad that you have decided to start analysing your questions quality! I believe that as much as constructing questions, looking back at how your questions is perceived is as important too. The content of this book comes from our experience gained over the one year plus of conducting online integrated assessment in Kulliyah of Medicine.

May this e-Book benefit you too, insya-Allah.



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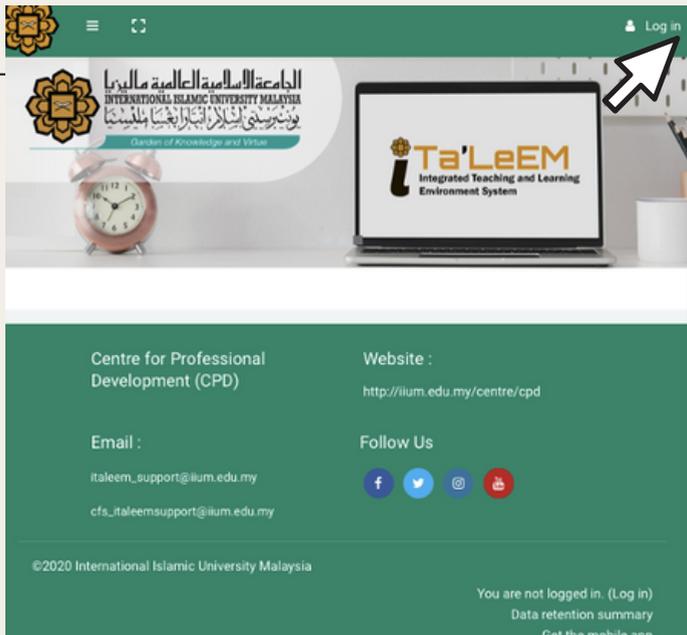
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Analysing the questions by
facility and discriminative
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LOGGING IN TO I-TA'LEEMC

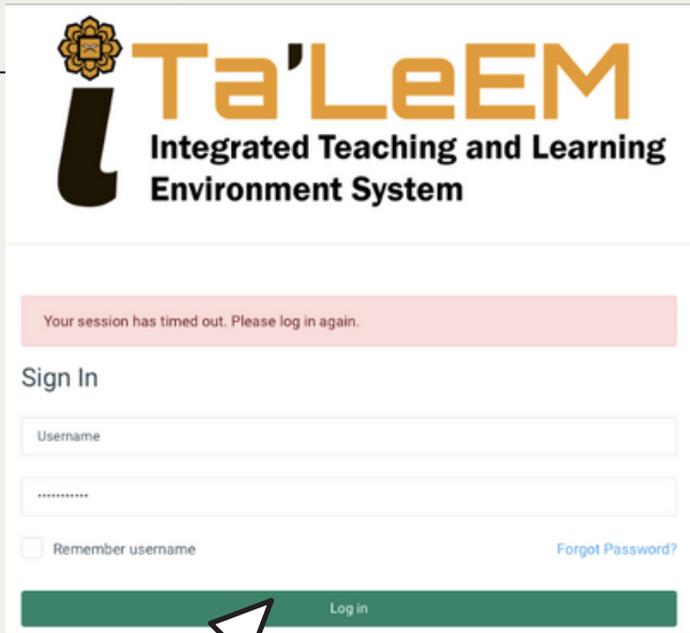


The first step is to log in to your account in i-Ta'leEMc.

1. Open the website <https://italeemc.iium.edu.my>

[HTTPS://ITALEEMC.IIUM.EDU.MY](https://italeemc.iium.edu.my)

LOGGING IN TO I-TALEEMC



Your session has timed out. Please log in again.

Sign In

Username

Remember username [Forgot Password?](#)

Log in

2. Key-in your username and password and click "Log in".

[HTTPS://ITALEEMC.IIUM.EDU.MY](https://italeemc.iium.edu.my)

CHAPTER 01

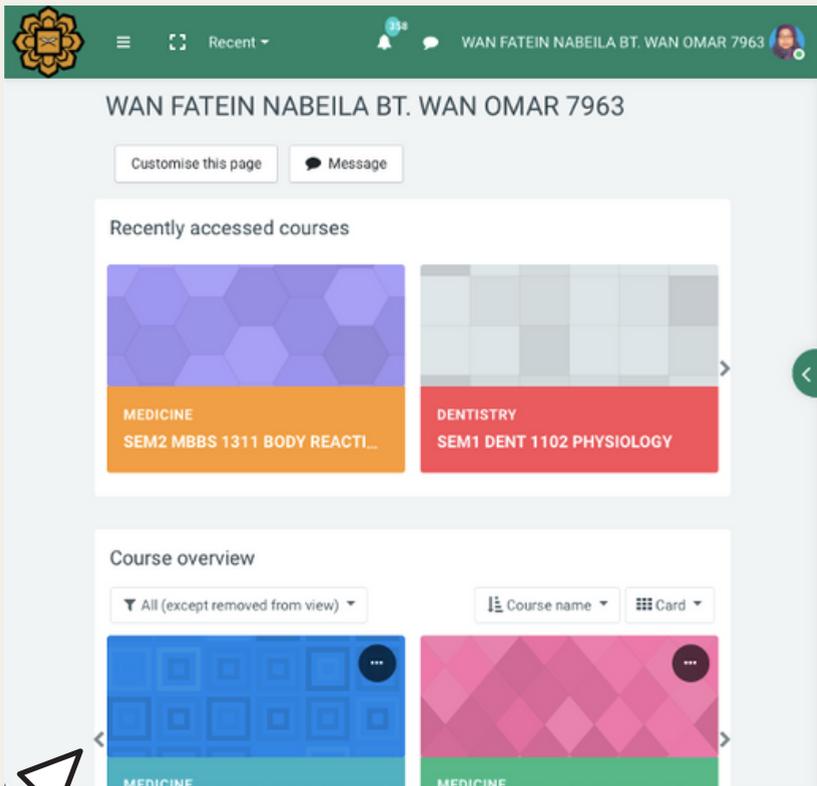
Locating the Quiz



[HTTPS://ITALEEMC.IIUM.EDU.MY](https://italeemc.iium.edu.my)

LOCATING THE QUIZ

1. At the landing page, scroll left or right in the "Course overview" section



LOCATING THE QUIZ

2. Select the Course of interest. For example, “MBBS 1210 NORMAL RESPONSE AND PROCESS TO DISEASED STATE”.

The screenshot shows a course page with a green header bar. On the left is a logo, and on the right is the user's name 'WAN FATEIN NABEILA BT. WAN OMAR 7963' and a profile picture. Below the header, the course title 'SEM1 MBBS 1210 NORMAL RESPONSE AND PROCESS TO DISEASED STATE' is displayed, along with a breadcrumb trail: 'Dashboard / My courses / MBBS 1210 SEM1'. A settings icon is visible. The main content area features two columns of statistics: '154 ENROLLED STUDENTS' and '2 IN PROGRESS' on the left; '0 STUDENTS COMPLETED' and '152 YET TO START' on the right. Below this is a 'General' section with a dark background and 'Teachers' with two profile pictures. At the bottom, there are two icons: 'Announcements' (with a speech bubble icon) and 'Y1B2 MID BLOCK ASSESSMENT RESULT' (with a document icon).

Category	Value
Enrolled Students	154
In Progress	2
Students Completed	0
Yet to Start	152

LOCATING THE QUIZ

3. Scroll down to the “Quiz” of interest. The Quiz may be renamed as per the online assessment name. For example, Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 2).

DAY 2: Y1B2 END OF BLOCK INTEGRATED ASSESSMENT ^

Hidden from students

1 Attendance, 2 Quizzes, 1 URL

WEDNESDAY, 3 MARCH 2021 (1.30 - 2.00 PM)

📅 Y1B2 END OF BLOCK INTEGRATED ASSESSMENT ATTENDANCE

WEDNESDAY, 3 MARCH 2021 (2.00 - 3.00 PM)

📅 Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)

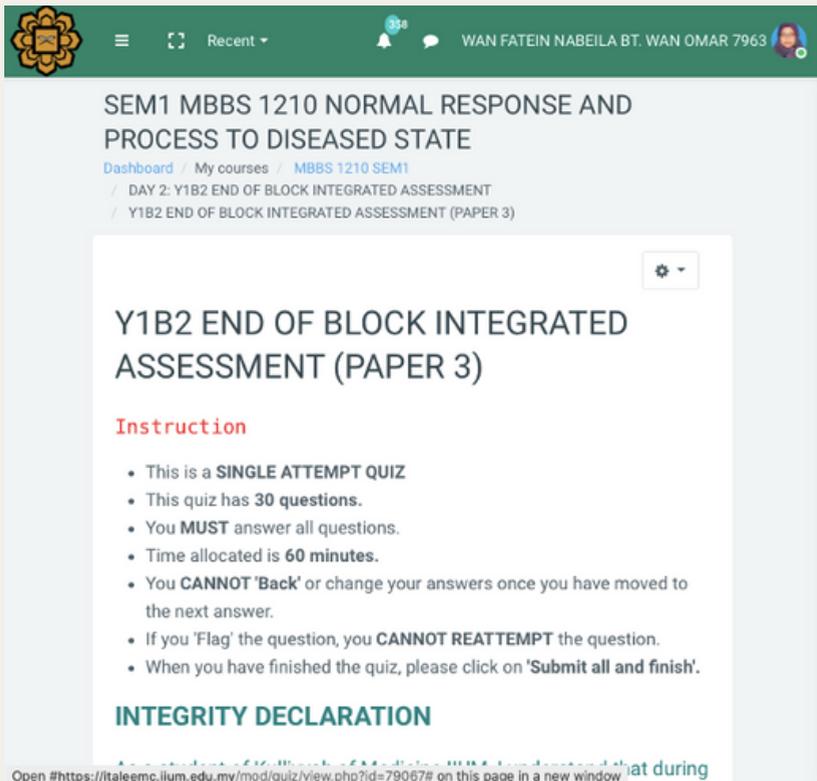
Instruction

- This is a **SINGLE ATTEMPT QUIZ**
- This quiz has **30 questions**.
- You **MUST** answer all questions.
- Time allocated is **60 minutes**.
- You **CANNOT 'Back'** or change your answers once you have moved to the next answer.
- If you 'Flag' the question, you **CANNOT REATTEMPT** the question.
- When you have finished the quiz, please click on '**Submit all and finish**'.

INTEGRITY DECLARATION

LOCATING THE QUIZ

4. Click on the "Quiz" and you will arrive at the landing page of the quiz.



The screenshot shows a Moodle quiz landing page. At the top is a green navigation bar with a logo on the left, a menu icon, a 'Recent' dropdown, a notification bell with '338', a chat icon, and the user name 'WAN FATEIN NABEILA BT. WAN OMAR 7963' with a profile picture. Below the navigation bar, the page title is 'SEM1 MBBS 1210 NORMAL RESPONSE AND PROCESS TO DISEASED STATE'. Below the title is a breadcrumb trail: 'Dashboard / My courses / MBBS 1210 SEM1 / DAY 2: Y1B2 END OF BLOCK INTEGRATED ASSESSMENT / Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)'. The main content area has a title 'Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)' and a settings icon. Below the title is an 'Instruction' section with a list of rules: 'This is a SINGLE ATTEMPT QUIZ', 'This quiz has 30 questions.', 'You MUST answer all questions.', 'Time allocated is 60 minutes.', 'You CANNOT 'Back' or change your answers once you have moved to the next answer.', 'If you 'Flag' the question, you CANNOT REATTEMPT the question.', and 'When you have finished the quiz, please click on 'Submit all and finish''. Below the instructions is an 'INTEGRITY DECLARATION' section. At the bottom, there is a footer with the URL: 'Open #https://italemc.ilum.edu.my/mod/quiz/view.php?id=79067# on this page in a new window'.

SEM1 MBBS 1210 NORMAL RESPONSE AND PROCESS TO DISEASED STATE

[Dashboard](#) / [My courses](#) / [MBBS 1210 SEM1](#)
/ DAY 2: Y1B2 END OF BLOCK INTEGRATED ASSESSMENT
/ Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)

Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)

Instruction

- This is a **SINGLE ATTEMPT QUIZ**
- This quiz has **30 questions**.
- You **MUST** answer all questions.
- Time allocated is **60 minutes**.
- You **CANNOT 'Back'** or change your answers once you have moved to the next answer.
- If you 'Flag' the question, you **CANNOT REATTEMPT** the question.
- When you have finished the quiz, please click on '**Submit all and finish**'.

INTEGRITY DECLARATION

Open #<https://italemc.ilum.edu.my/mod/quiz/view.php?id=79067#> on this page in a new window

CHAPTER 02

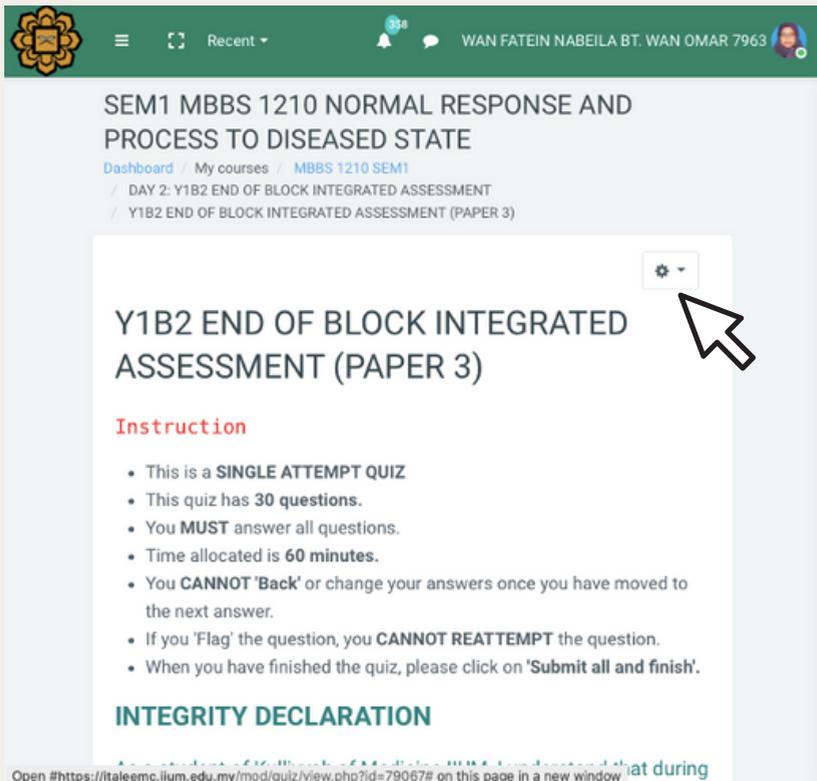
Retrieving Quiz Information



[HTTPS://ITALEEMC.IIUM.EDU.MY](https://italeemc.iium.edu.my)

RETRIEVING QUIZ INFORMATION

1. Click on the  (setting) icon.



SEM1 MBBS 1210 NORMAL RESPONSE AND PROCESS TO DISEASED STATE

[Dashboard](#) / [My courses](#) / [MBBS 1210 SEM1](#)
/ DAY 2: Y1B2 END OF BLOCK INTEGRATED ASSESSMENT
/ Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)

Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)

Instruction

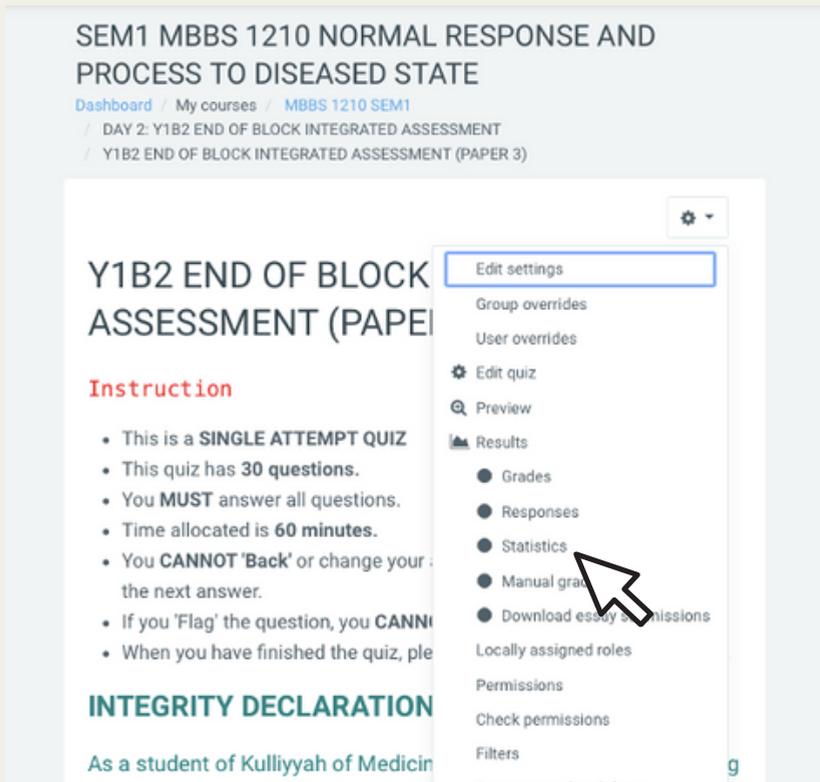
- This is a **SINGLE ATTEMPT QUIZ**
- This quiz has **30 questions**.
- You **MUST** answer all questions.
- Time allocated is **60 minutes**.
- You **CANNOT 'Back'** or change your answers once you have moved to the next answer.
- If you 'Flag' the question, you **CANNOT REATTEMPT** the question.
- When you have finished the quiz, please click on '**Submit all and finish**'.

INTEGRITY DECLARATION

Open #<https://italemc.ilum.edu.my/mod/quiz/view.php?id=79067#> on this page in a new window

RETRIEVING QUIZ INFORMATION

2. Select "Statistics" from the drop-down menu.



SEM1 MBBS 1210 NORMAL RESPONSE AND PROCESS TO DISEASED STATE

Dashboard / My courses / MBBS 1210 SEM1
/ DAY 2: Y1B2 END OF BLOCK INTEGRATED ASSESSMENT
/ Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)

Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)

Instruction

- This is a **SINGLE ATTEMPT QUIZ**
- This quiz has **30 questions**.
- You **MUST** answer all questions.
- Time allocated is **60 minutes**.
- You **CANNOT 'Back'** or change your answer once you click the next answer.
- If you 'Flag' the question, you **CANNOT** return to it.
- When you have finished the quiz, please click the 'Finish' button.

INTEGRITY DECLARATION

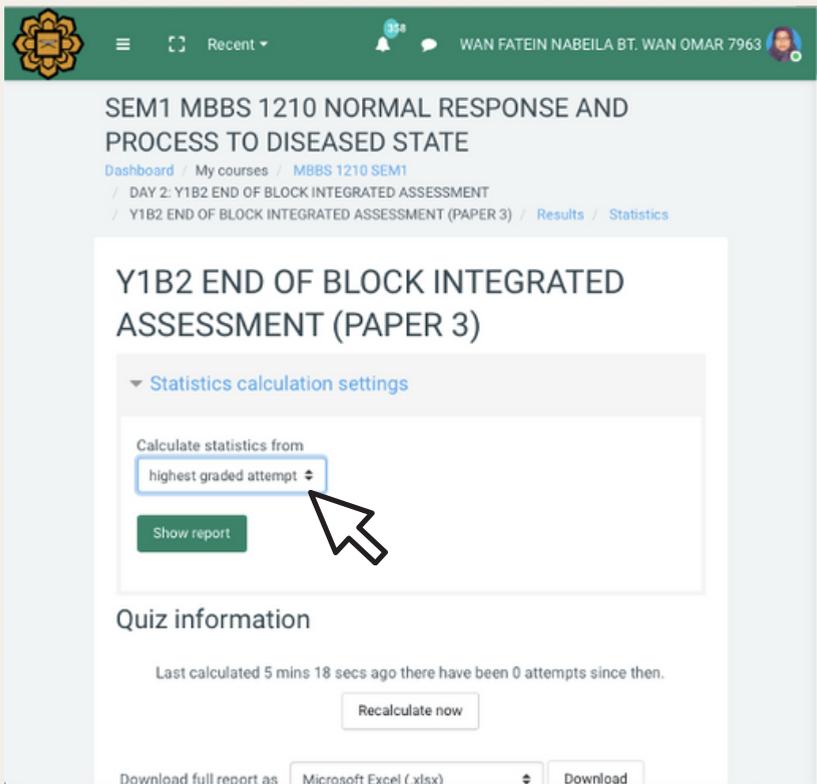
As a student of Kulliyah of Medicin

Settings

- Edit settings
- Group overrides
- User overrides
- Edit quiz
- Preview
- Results
 - Grades
 - Responses
 - Statistics**
 - Manual grading
 - Download essay submissions
- Locally assigned roles
- Permissions
 - Check permissions
- Filters
- Competency breakdown

RETRIEVING QUIZ INFORMATION

3. Select "Calculate statistics from highest graded attempt".



The screenshot displays a user interface for a quiz titled "SEM1 MBBS 1210 NORMAL RESPONSE AND PROCESS TO DISEASED STATE". The user is logged in as "WAN FATEIN NABEILA BT. WAN OMAR 7963". The current page is "Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)". Under the "Statistics calculation settings" section, the "Calculate statistics from" dropdown menu is set to "highest graded attempt", which is highlighted by a blue box and a mouse cursor. A "Show report" button is located below the dropdown. The "Quiz information" section shows that the last calculation was performed 5 minutes and 18 seconds ago, with 0 attempts since then. A "Recalculate now" button is provided. At the bottom, there is a "Download full report as" section with a dropdown menu set to "Microsoft Excel (.xlsx)" and a "Download" button.

SEM1 MBBS 1210 NORMAL RESPONSE AND PROCESS TO DISEASED STATE

Dashboard / My courses / MBBS 1210 SEM1
/ DAY 2: Y1B2 END OF BLOCK INTEGRATED ASSESSMENT
/ Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3) / Results / Statistics

Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)

Statistics calculation settings

Calculate statistics from
highest graded attempt

Show report

Quiz information

Last calculated 5 mins 18 secs ago there have been 0 attempts since then.

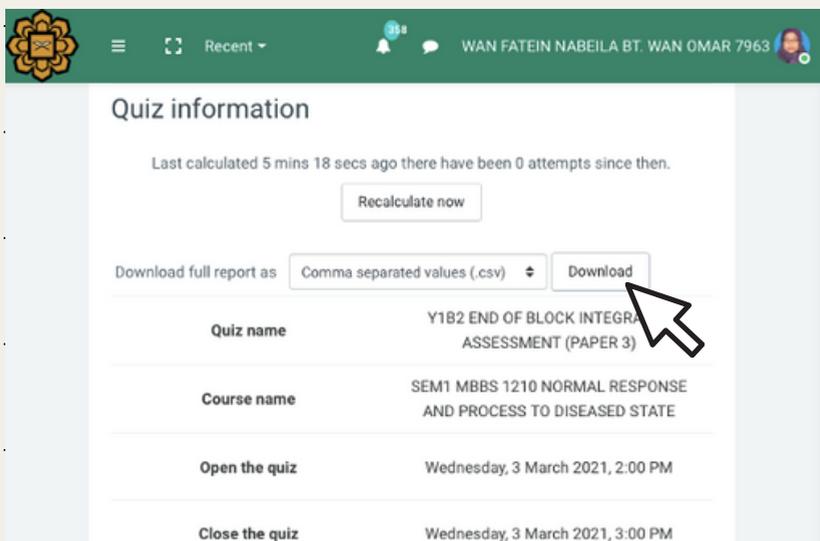
Recalculate now

Download full report as Microsoft Excel (.xlsx) Download

RETRIEVING QUIZ INFORMATION

4. Scroll down to “Quiz information” to retrieve the overall analysis of the quiz. The full report can be downloaded in these formats:

- a. Comma separated values (.csv)
- b. Microsoft Excel (.xlsx)
- c. HTML table
- d. Javascript object notation (.json)
- e. Open documents (.ods)
- f. Portable Document Format (.pdf)



The screenshot shows a user interface for a quiz. At the top, there is a green navigation bar with a logo, a menu icon, a 'Recent' dropdown, a notification bell with '398', a chat icon, and the user's name 'WAN FATEIN NABEILA BT. WAN OMAR 7963' next to a profile picture. Below the navigation bar, the main content area is titled 'Quiz information'. It states 'Last calculated 5 mins 18 secs ago there have been 0 attempts since then.' and includes a 'Recalculate now' button. Below this, there is a section for downloading the full report, with a dropdown menu set to 'Comma separated values (.csv)' and a 'Download' button. A mouse cursor is pointing at the 'Download' button. Below the download options is a table with quiz details:

Quiz name	Y1B2 END OF BLOCK INTEGRATED ASSESSMENT (PAPER 3)
Course name	SEM1 MBBS 1210 NORMAL RESPONSE AND PROCESS TO DISEASED STATE
Open the quiz	Wednesday, 3 March 2021, 2:00 PM
Close the quiz	Wednesday, 3 March 2021, 3:00 PM

CHAPTER 03

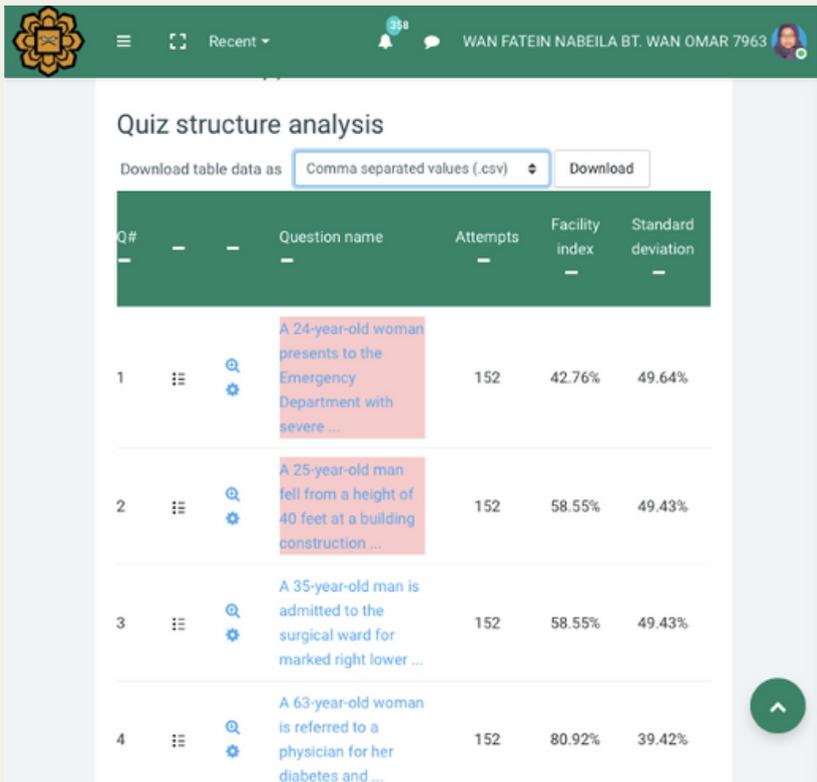
Retrieving the Quiz Structure Analysis



[HTTPS://ITALEEMC.IIUM.EDU.MY](https://italeemc.iium.edu.my)

RETRIEVING QUIZ STRUCTURE ANALYSIS

1. Scroll down to “Quiz structure analysis” to retrieve the individual questions analysis.

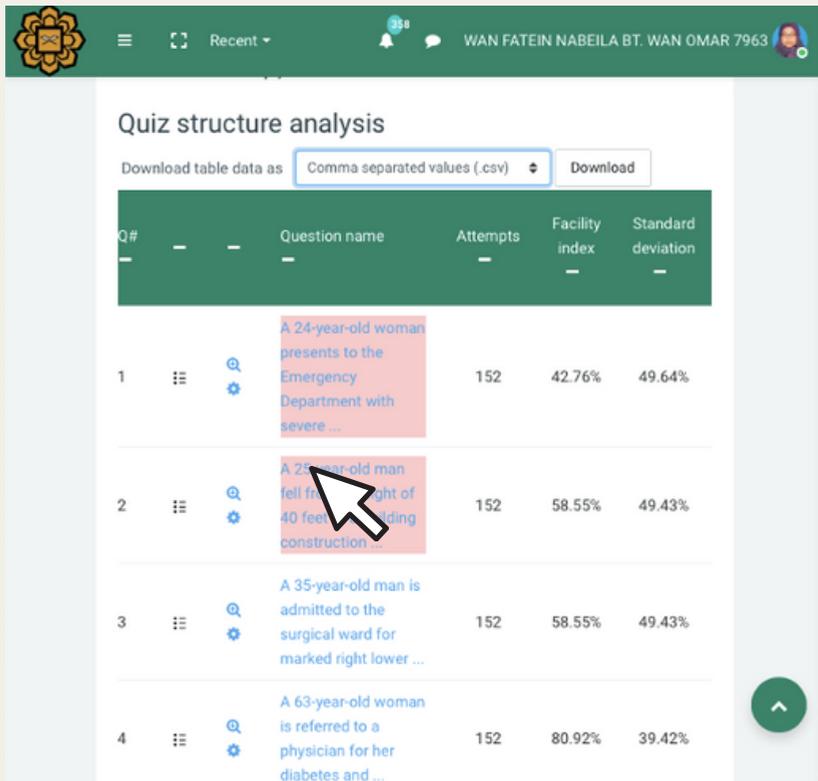


The screenshot displays a user interface for quiz structure analysis. At the top, there is a green header bar with a logo on the left, navigation icons, a notification bell with '398', a chat icon, and the user name 'WAN FATEIN NABEILA BT. WAN OMAR 7963' next to a profile picture. Below the header, the title 'Quiz structure analysis' is centered. Underneath the title, there is a dropdown menu set to 'Comma separated values (.csv)' and a 'Download' button. The main content is a table with the following columns: Q#, Question name, Attempts, Facility index, and Standard deviation. The table contains four rows of data, each representing a quiz question. The first row shows a question about a 24-year-old woman presenting to the Emergency Department with severe symptoms, with 152 attempts, a 42.76% facility index, and a 49.64% standard deviation. The second row shows a question about a 25-year-old man falling from a height of 40 feet at a building construction site, with 152 attempts, a 58.55% facility index, and a 49.43% standard deviation. The third row shows a question about a 35-year-old man admitted to the surgical ward for marked right lower quadrant pain, with 152 attempts, a 58.55% facility index, and a 49.43% standard deviation. The fourth row shows a question about a 63-year-old woman referred to a physician for her diabetes and other symptoms, with 152 attempts, an 80.92% facility index, and a 39.42% standard deviation. A green circular button with an upward arrow is located at the bottom right of the table area.

Q#	Question name	Attempts	Facility index	Standard deviation
1	A 24-year-old woman presents to the Emergency Department with severe ...	152	42.76%	49.64%
2	A 25-year-old man fell from a height of 40 feet at a building construction ...	152	58.55%	49.43%
3	A 35-year-old man is admitted to the surgical ward for marked right lower ...	152	58.55%	49.43%
4	A 63-year-old woman is referred to a physician for her diabetes and ...	152	80.92%	39.42%

RETRIEVING QUIZ STRUCTURE ANALYSIS

1. Scroll down to “Quiz structure analysis” to retrieve the individual questions analysis. Note that questions with discrimination index of less than 10% are highlighted in pink.



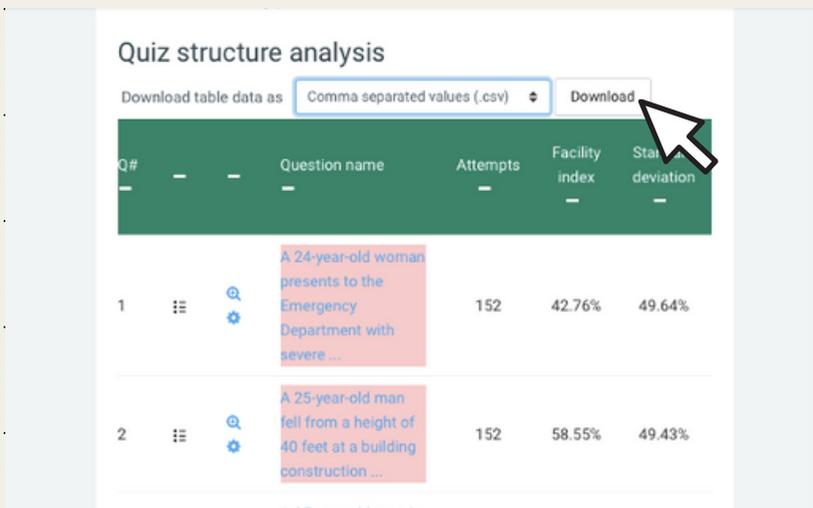
The screenshot displays a user interface for quiz structure analysis. At the top, there is a green header bar with a logo, navigation icons, a 'Recent' dropdown, a notification bell, a chat icon, and the user's name 'WAN FATEIN NABEILA BT. WAN OMAR 7963' next to a profile picture. Below the header, the title 'Quiz structure analysis' is centered. Underneath the title, there is a section for downloading data, with a dropdown menu set to 'Comma separated values (.csv)' and a 'Download' button. The main content is a table with the following columns: 'Q#', 'Question name', 'Attempts', 'Facility index', and 'Standard deviation'. The table contains four rows of data. The first two rows are highlighted in pink, indicating a discrimination index of less than 10%. A mouse cursor is pointing at the second row. The third and fourth rows are not highlighted, indicating a discrimination index of 10% or higher. A green circular button with an upward arrow is located at the bottom right of the table area.

Q#	Question name	Attempts	Facility index	Standard deviation
1	A 24-year-old woman presents to the Emergency Department with severe ...	152	42.76%	49.64%
2	A 21-year-old man fell from a height of 40 feet while working on a building construction ...	152	58.55%	49.43%
3	A 35-year-old man is admitted to the surgical ward for marked right lower ...	152	58.55%	49.43%
4	A 63-year-old woman is referred to a physician for her diabetes and ...	152	80.92%	39.42%

RETRIEVING QUIZ INFORMATION

2. The table data of the “Question structure analysis” can be downloaded in these formats:

- Comma separated values (.csv)
- Microsoft Excel (.xlsx)
- HTML table
- Javascript object notation (.json)
- Open documents (.ods)
- Portable Document Format (.pdf)

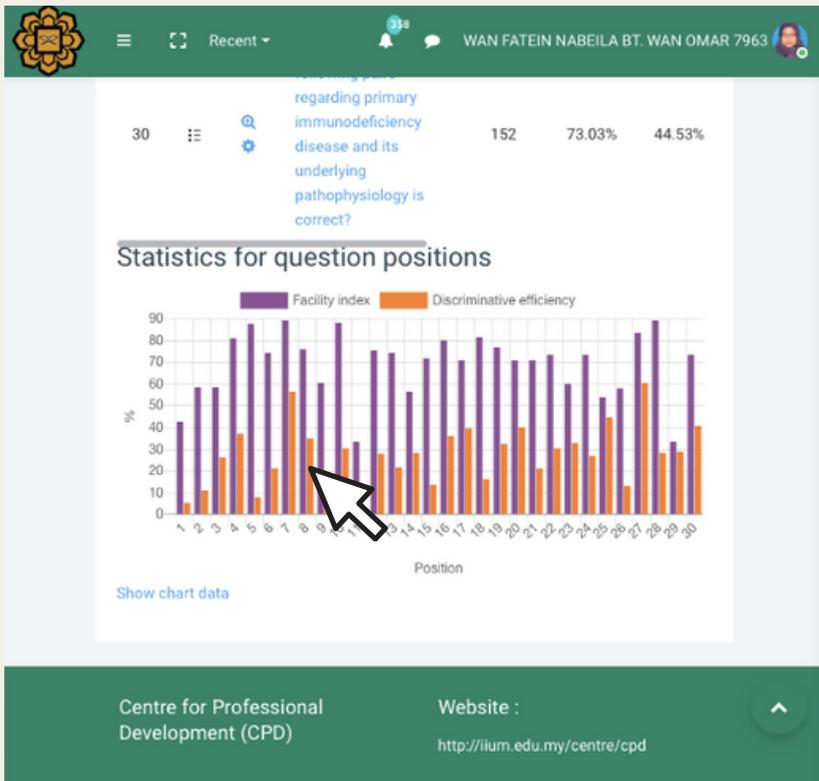


The screenshot shows a web interface titled "Quiz structure analysis". At the top, there is a dropdown menu labeled "Download table data as" with "Comma separated values (.csv)" selected, and a "Download" button. Below this is a table with the following columns: Q#, Question name, Attempts, Facility index, and Standard deviation. The table contains two rows of data. A mouse cursor is pointing at the "Download" button.

Q#	Question name	Attempts	Facility index	Standard deviation
1	A 24-year-old woman presents to the Emergency Department with severe ...	152	42.76%	49.64%
2	A 25-year-old man fell from a height of 40 feet at a building construction ...	152	58.55%	49.43%

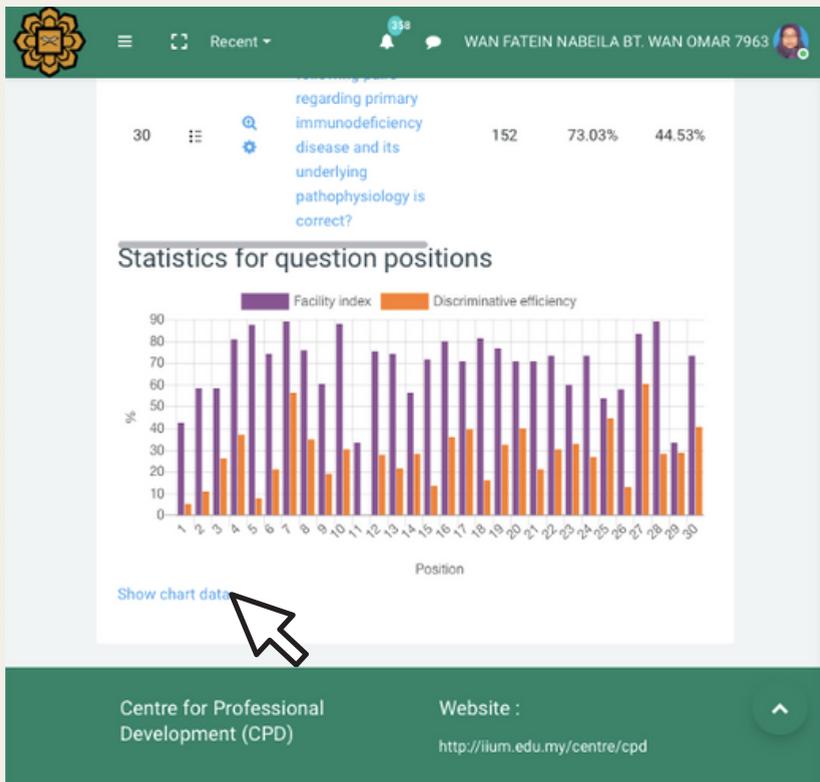
RETRIEVING QUIZ STRUCTURE ANALYSIS

3. Scroll down to view the overall Facility index and discriminative efficiency of the questions in the quiz.



RETRIEVING QUIZ STRUCTURE ANALYSIS

4. Click "Show chart data" to view the index of each score.



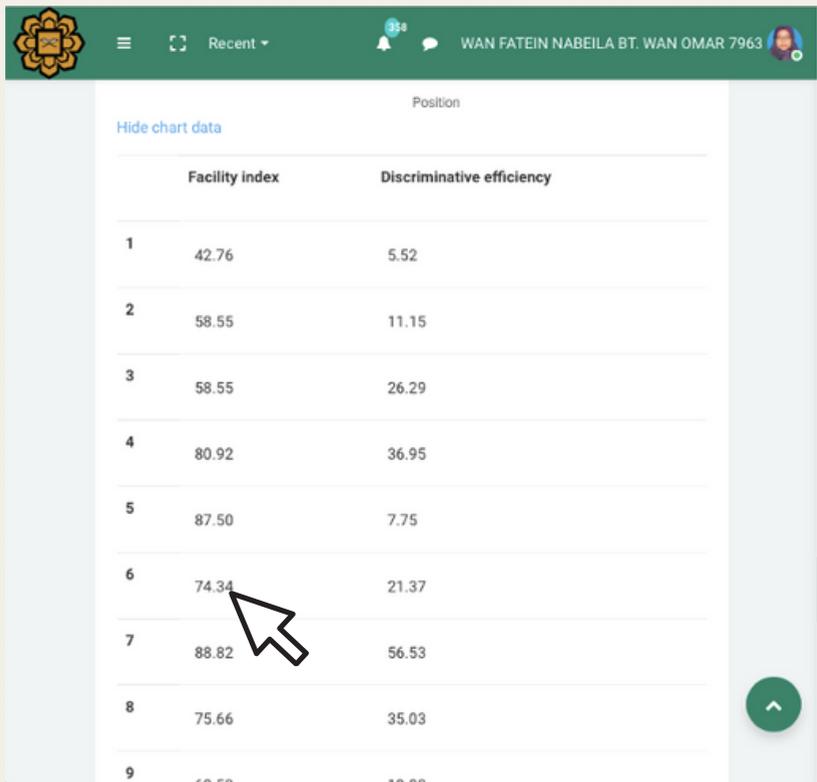
The screenshot displays a quiz interface with a green header. The header includes a logo on the left, a menu icon, a 'Recent' dropdown, a notification bell, a chat icon, and the user's name 'WAN FATEIN NABEILA BT. WAN OMAR 7963' next to a profile picture. Below the header, a question is shown: 'regarding primary immunodeficiency disease and its underlying pathophysiology is correct?'. The question number '30' is on the left, and the number of attempts '152', the percentage correct '73.03%', and the score '44.53%' are on the right. Below the question, a bar chart titled 'Statistics for question positions' is displayed. The chart has two series: 'Facility index' (purple bars) and 'Discriminative efficiency' (orange bars). The y-axis is labeled '%' and ranges from 0 to 90. The x-axis is labeled 'Position' and shows 30 positions. A mouse cursor is pointing to a blue link labeled 'Show chart data' located below the chart.

Centre for Professional Development (CPD)

Website : <http://iiium.edu.my/centre/cpd>

RETRIEVING QUIZ STRUCTURE ANALYSIS

4. The Facility index and Discriminative efficiency of each question in the quiz will be displayed .



The screenshot shows a mobile application interface with a green header bar. The header contains a logo on the left, a menu icon, a 'Recent' dropdown, a notification bell with '398', a chat bubble, and the user's name 'WAN FATEIN NABEILA BT. WAN OMAR 7963' next to a profile picture. Below the header, the word 'Position' is centered. A link 'Hide chart data' is on the left. The main content is a table with two columns: 'Facility index' and 'Discriminative efficiency'. The table has 9 rows, numbered 1 to 9. A mouse cursor is pointing at the value '74.34' in the 'Facility index' column of row 6. A green circular button with an upward arrow is at the bottom right.

	Facility index	Discriminative efficiency
1	42.76	5.52
2	58.55	11.15
3	58.55	26.29
4	80.92	36.95
5	87.50	7.75
6	74.34	21.37
7	88.82	56.53
8	75.66	35.03
9	60.53	19.08

CHAPTER 04

Analysing the Questions



[HTTPS://ITALEEMC.IIUM.EDU.MY](https://italeemc.iium.edu.my)

RETRIEVING QUIZ STRUCTURE ANALYSIS

1. Open the downloaded table data of the “Question structure analysis”. In this example, the table is downloaded as .xlsx document. The document is named as the “<Quiz name>-completestats”.

The screenshot displays an Excel spreadsheet with the following data:

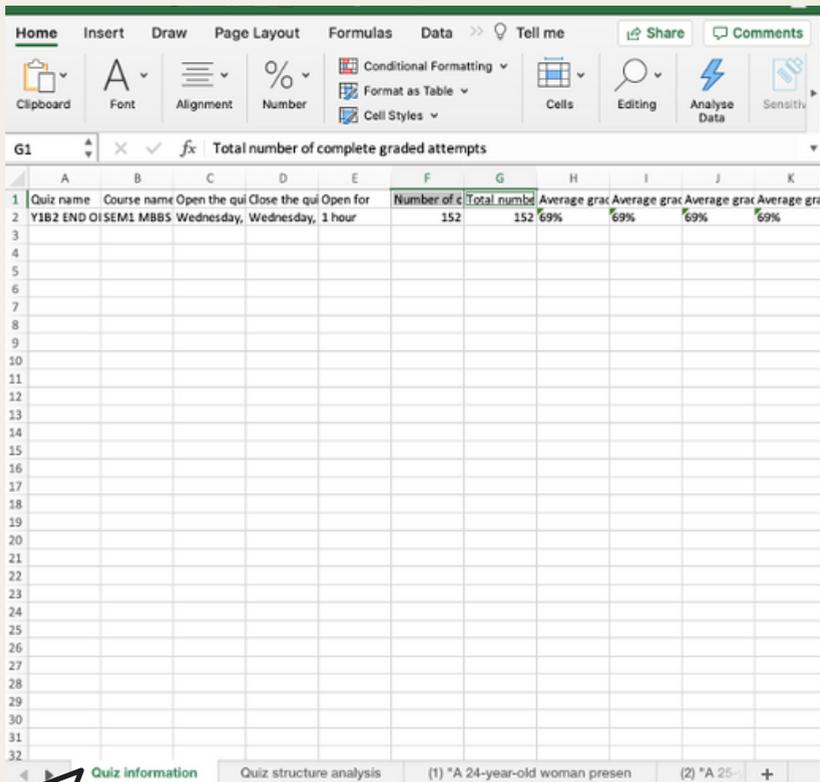
	A	B	C	D	E	F	G	H	I	J	K
1	Quiz name	Course name	Open the qui	Close the qui	Open for	Number of c	Total numbe	Average grac	Average grac	Average grac	Average gra
2	Y1B2 END OI	SEM1 MBBS	Wednesday,	Wednesday,	1 hour	152	152	69%	69%	69%	69%
3											
4											
5											
6											
7											
8											
9											
10											
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30											
31											
32											

The spreadsheet interface includes the following elements:

- Home Tab:** Clipboard, Font, Alignment, Number, Conditional Formatting, Format as Table, Cell Styles, Cells, Editing, Analyse Data, Sensitivity.
- Formulas Bar:** Total number of complete graded attempts
- Worksheet Grid:** Columns A-K, Rows 1-32.
- Bottom Bar:** Quiz information, Quiz structure analysis, (1) *A 24-year-old woman presen, (2) *A 25- +

RETRIEVING QUIZ STRUCTURE ANALYSIS

2. There are several sheets in the document. The first sheet is the "Quiz information".



	A	B	C	D	E	F	G	H	I	J	K
1	Quiz name	Course name	Open the quiz	Close the quiz	Open for	Number of completed	Total number	Average grade	Average grade	Average grade	Average grade
2	Y1B2 END OI SEM1 MBBS	Wednesday, Wednesday, 1 hour				152	152	69%	69%	69%	69%
3											
4											
5											
6											
7											
8											
9											
10											
11											
12											
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32											



RETRIEVING QUIZ STRUCTURE ANALYSIS

3. The second sheet contains the "Quiz structure analysis".

Q#	Question type	Question name	Attempts	Facility index	Standard dev	Random guess	Intended weight	Effective weight	Discriminability	Discrimination index
1	Multiple cho	A 24-year-old	152	42.76%	49.64%	20.00%	3%	2.66%	4.45%	5.52%
2	Multiple cho	A 25-year-old	152	58.55%	49.43%	20.00%	3%	2.99%	9.15%	11.15%
3	Multiple cho	A 35-year-old	152	58.55%	49.43%	20.00%	3%	3.74%	21.63%	26.29%
4	Multiple cho	A 63-year-old	152	80.92%	39.42%	20.00%	3%	3.47%	26.86%	36.95%
5	Multiple cho	A medical dc	152	87.50%	33.18%	20.00%	3%	1.94%	5.09%	7.75%
6	Multiple cho	An eleven-m	152	74.34%	43.82%	20.00%	3%	3.18%	16.64%	21.37%
7	Multiple cho	CK, a 2-year-	152	88.82%	31.62%	20.00%	3%	3.37%	35.40%	56.53%
8	Multiple cho	In endogeno	152	75.66%	43.06%	20.00%	3%	3.68%	27.17%	35.03%
9	Multiple cho	CK, a 2-year-	152	60.53%	49.04%	20.00%	3%	3.38%	15.59%	19.08%
10	Multiple cho	Referring to	152	88.16%	32.42%	20.00%	3%	2.75%	19.70%	30.55%
11	Multiple cho	Referring to	152	33.55%	47.37%	20.00%	3%	1.53%	-5.92%	-7.94%
12	Multiple cho	Review of a	152	75.00%	43.44%	20.00%	3%	3.44%	21.82%	27.81%
13	Multiple cho	Which of the	152	74.34%	43.82%	20.00%	3%	3.20%	17.03%	21.76%
14	Multiple cho	Which of the	152	56.58%	49.73%	20.00%	3%	3.83%	23.16%	28.29%
15	Multiple cho	Which of the	152	71.71%	45.19%	20.00%	3%	2.90%	10.91%	13.65%
16	Multiple cho	Which of the	152	79.61%	40.43%	20.00%	3%	3.54%	27.16%	36.10%
17	Multiple cho	Which of the	152	70.39%	45.80%	20.00%	3%	4.02%	31.38%	39.30%
18	Multiple cho	Which of the	152	81.58%	38.89%	20.00%	3%	2.65%	11.81%	16.28%
19	Multiple cho	Which of the	152	76.97%	42.24%	20.00%	3%	3.54%	25.05%	32.51%
20	Multiple cho	Which of the	152	70.39%	45.80%	20.00%	3%	4.06%	32.15%	40.24%
21	Multiple cho	Which of the	152	70.39%	45.80%	20.00%	3%	3.30%	16.93%	21.26%
22	Multiple cho	Which of the	152	73.03%	44.53%	20.00%	3%	3.60%	23.92%	30.14%
23	Multiple cho	Which of the	152	59.87%	49.18%	20.00%	3%	4.00%	27.04%	32.92%
24	Multiple cho	Which of the	152	73.03%	44.53%	20.00%	3%	3.44%	20.81%	26.57%
25	Multiple cho	Which of the	152	53.95%	50.01%	20.00%	3%	4.47%	36.36%	44.39%
26	Multiple cho	Which of the	152	57.89%	49.54%	20.00%	3%	3.12%	11.03%	13.25%
27	Multiple cho	Which of the	152	83.55%	37.19%	20.00%	3%	3.96%	41.98%	60.36%
28	Multiple cho	Which of the	152	88.82%	31.62%	20.00%	3%	2.63%	18.07%	28.52%
29	Multiple cho	In Islam, Alir	152	33.55%	47.37%	20.00%	3%	1.64%	21.73%	28.87%
30	Multiple cho	Which of the	152	73.03%	44.53%	20.00%	3%	3.99%	32.19%	40.58%



RETRIEVING QUIZ STRUCTURE ANALYSIS

5. You may sort the scores of the facility index from low to high.

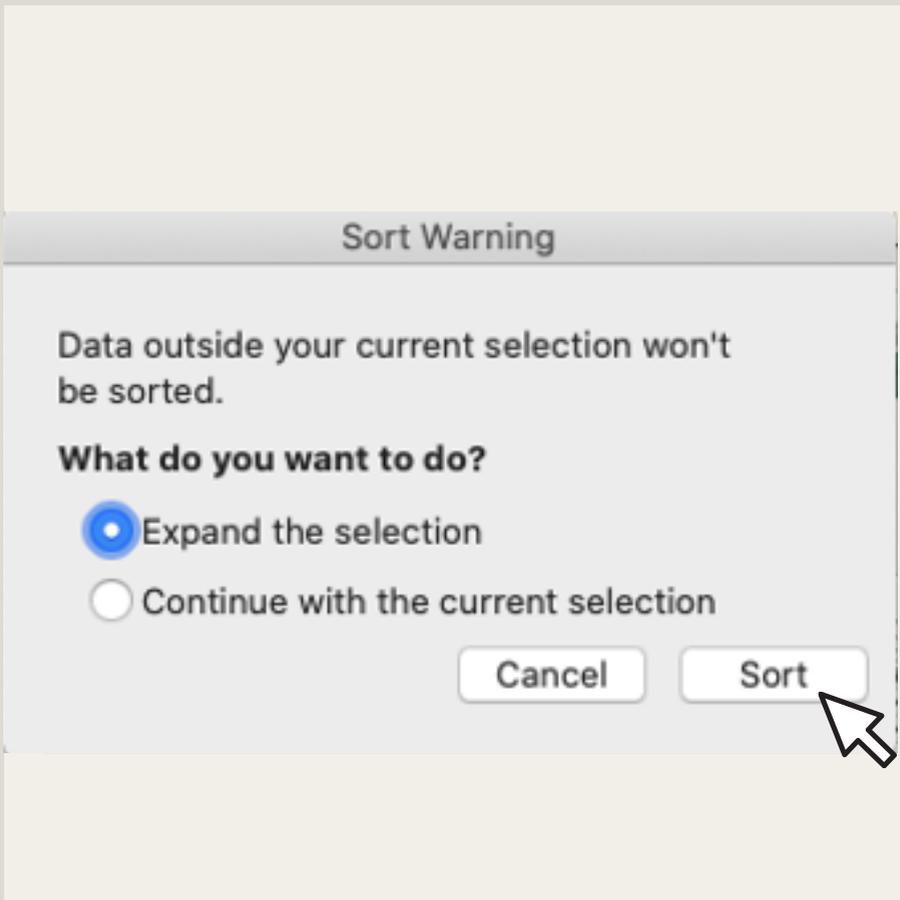
- Highlight the column
- Go to "Data"
- Select "Sort & Filter"
- Click on "Sort A to Z" icon

The screenshot shows the Microsoft Excel interface with the 'Data' tab selected. The 'Sort & Filter' dropdown menu is open, and the 'Sort A to Z' option is highlighted. A mouse cursor is pointing to the 'Sort A to Z' icon. The spreadsheet displays a table with columns A through K. The first column (A) contains question numbers (Q#), and the second column (B) contains question text. Columns C through K contain various numerical scores and percentages. The 'Facility index' column (C) is highlighted in grey, and the 'Sort A to Z' dropdown menu is open over it.

Q#	Question type	Question nar	Facility index									
1	Multiple cho	A 24-year-old	42.76%	49.64%	20.00%	3%	2.66%	4.45%	5.52%			
2	Multiple cho	A 25-year-old	58.55%	49.43%	20.00%	3%	2.99%	9.15%	11.15%			
3	Multiple cho	A 35-year-old	58.55%	49.43%	20.00%	3%	3.74%	21.63%	26.29%			
4	Multiple cho	A 63-year-old	80.92%	39.42%	20.00%	3%	3.47%	26.86%	36.95%			
5	Multiple cho	A medical dc	87.50%	33.18%	20.00%	3%	1.94%	5.09%	7.75%			
6	Multiple cho	An eleven-m	74.34%	43.82%	20.00%	3%	3.18%	16.64%	21.37%			
7	Multiple cho	CK, a 2-year-	88.82%	31.62%	20.00%	3%	3.37%	35.40%	56.53%			
8	Multiple cho	In endogeno	75.66%	43.06%	20.00%	3%	3.68%	27.17%	35.03%			
9	Multiple cho	Observation	60.53%	49.04%	20.00%	3%	3.38%	15.59%	19.08%			
10	Multiple cho	Referring to	88.16%	32.42%	20.00%	3%	2.75%	19.70%	30.55%			
11	Multiple cho	Referring to	33.55%	47.37%	20.00%	3%	1.53%	5.92%	7.94%			
12	Multiple cho	Review of a	75.00%	43.44%	20.00%	3%	3.44%	21.82%	27.81%			
13	Multiple cho	Which of the	74.34%	43.82%	20.00%	3%	3.20%	17.03%	21.76%			
14	Multiple cho	Which of the	56.58%	49.73%	20.00%	3%	3.83%	23.16%	28.29%			
15	Multiple cho	Which of the	71.71%	45.19%	20.00%	3%	2.90%	10.91%	13.65%			
16	Multiple cho	Which of the	79.61%	40.43%	20.00%	3%	3.54%	27.16%	36.10%			
17	Multiple cho	Which of the	70.39%	45.80%	20.00%	3%	4.02%	31.38%	39.30%			
18	Multiple cho	Which of the	81.58%	38.89%	20.00%	3%	2.65%	11.81%	16.28%			
19	Multiple cho	Which of the	76.97%	42.24%	20.00%	3%	3.54%	25.05%	32.51%			
20	Multiple cho	Which of the	70.39%	45.80%	20.00%	3%	4.06%	32.15%	40.24%			
21	Multiple cho	Which of the	70.39%	45.80%	20.00%	3%	3.30%	16.93%	21.26%			
22	Multiple cho	Which of the	73.03%	44.53%	20.00%	3%	3.60%	23.92%	30.14%			
23	Multiple cho	Which of the	59.87%	49.18%	20.00%	3%	4.00%	27.04%	32.92%			
24	Multiple cho	Which of the	73.03%	44.53%	20.00%	3%	3.44%	20.81%	26.57%			
25	Multiple cho	Which of the	53.95%	50.01%	20.00%	3%	4.47%	36.36%	44.39%			
26	Multiple cho	Which of the	57.89%	49.54%	20.00%	3%	3.12%	11.03%	13.25%			
27	Multiple cho	Which of the	83.55%	37.19%	20.00%	3%	3.96%	41.98%	60.36%			
28	Multiple cho	Which of the	88.82%	31.62%	20.00%	3%	2.63%	18.07%	28.52%			
29	Multiple cho	In Islam, Alir	33.55%	47.37%	20.00%	3%	3.64%	21.73%	28.87%			
30	Multiple cho	Which of the	73.03%	44.53%	20.00%	3%	3.99%	32.19%	40.58%			

RETRIEVING QUIZ STRUCTURE ANALYSIS

4. In the pop-up menu, select "Expand the selection" then click "Sort".



RETRIEVING QUIZ STRUCTURE ANALYSIS

5. Now the facility index is sorted from low to high.

6. Repeat the same step for discrimination index.

Q#	Question type	Question nar	Attempts	Facility index	Standard dev	Random que	Intended we	Effective we	Discriminati	Discriminati
11	Multiple cho	Referring to	152	33.55%	47.37%	20.00%	5%	1.53%	5.92%	7.94%
29	Multiple cho	In Islam, Alr	152	33.55%	47.37%	20.00%	5%	5.64%	21.73%	28.87%
1	Multiple cho	A 24-year-ol	152	42.76%	49.64%	20.00%	3%	2.66%	4.45%	5.52%
25	Multiple cho	Which of the	152	53.95%	50.01%	20.00%	3%	4.47%	36.36%	44.39%
14	Multiple cho	Which of the	152	56.58%	49.73%	20.00%	3%	3.83%	23.16%	28.29%
26	Multiple cho	Which of the	152	57.89%	49.54%	20.00%	3%	3.32%	11.03%	13.25%
2	Multiple cho	A 25-year-ol	152	58.55%	49.43%	20.00%	3%	2.99%	9.15%	11.15%
3	Multiple cho	A 35-year-ol	152	58.55%	49.43%	20.00%	3%	3.74%	21.63%	26.29%
23	Multiple cho	Which of the	152	59.87%	49.18%	20.00%	3%	4.00%	27.04%	32.92%
9	Multiple cho	Observation	152	60.53%	49.04%	20.00%	3%	3.38%	15.59%	19.08%
17	Multiple cho	Which of the	152	70.39%	45.80%	20.00%	3%	4.02%	11.38%	39.30%
20	Multiple cho	Which of the	152	70.39%	45.80%	20.00%	3%	4.06%	32.15%	40.24%
21	Multiple cho	Which of the	152	70.39%	45.80%	20.00%	3%	3.30%	16.93%	21.26%
15	Multiple cho	Which of the	152	71.71%	45.19%	20.00%	3%	2.90%	10.91%	13.65%
22	Multiple cho	Which of the	152	73.03%	44.53%	20.00%	3%	3.60%	23.92%	30.14%
24	Multiple cho	Which of the	152	73.03%	44.53%	20.00%	3%	3.44%	20.81%	26.57%
30	Multiple cho	Which of the	152	73.03%	44.53%	20.00%	3%	3.59%	32.19%	40.58%
6	Multiple cho	An eleven-m	152	74.34%	43.82%	20.00%	3%	3.18%	16.64%	21.37%
13	Multiple cho	Which of the	152	74.34%	43.82%	20.00%	3%	3.20%	17.03%	21.76%
12	Multiple cho	Review of a	152	75.00%	43.44%	20.00%	3%	3.44%	21.82%	27.81%
8	Multiple cho	In endogeno	152	75.66%	43.06%	20.00%	3%	3.68%	27.17%	35.03%
19	Multiple cho	Which of the	152	76.97%	42.24%	20.00%	3%	3.54%	25.05%	32.51%
16	Multiple cho	Which of the	152	79.61%	40.43%	20.00%	3%	3.54%	27.16%	36.10%
4	Multiple cho	A 63-year-ol	152	80.92%	39.42%	20.00%	3%	3.47%	26.86%	36.95%
18	Multiple cho	Which of the	152	81.58%	38.89%	20.00%	3%	2.65%	11.81%	16.28%
27	Multiple cho	Which of the	152	83.55%	37.19%	20.00%	3%	3.96%	41.98%	60.36%
5	Multiple cho	A medical d	152	87.50%	33.18%	20.00%	3%	1.94%	5.09%	7.75%
10	Multiple cho	Referring to	152	88.16%	32.42%	20.00%	3%	2.75%	19.70%	30.55%
7	Multiple cho	CK, a 2-year-	152	88.82%	31.62%	20.00%	3%	3.37%	35.40%	56.53%
28	Multiple cho	Which of the	152	88.82%	31.62%	20.00%	3%	2.63%	18.07%	28.52%

QUESTION ANALYSIS

FACILITY INDEX

Facility index depicts the difficulty of the questions. The index represents the proportion of students with correct answers and can be interpreted following Table 1 below.

Facility index (%)	Interpretation
<5	Extremely difficult, or question is wrong
6-10	Very difficult
11-20	Difficult
21-34	Moderately difficult
35-65	About right
66-80	Fairly easy
81-89	Easy
90-94	Very easy
95-100	Extremely easy



TABLE 1. INTERPRETATION OF FACILITY INDEX OF THE QUESTIONS QUIZ IN ITALE'EMC. ADOPTED FROM MOODLE.ORG (2010).

QUESTION ANALYSIS

FACILITY INDEX

In this example, out of 30 questions, 2 were moderately difficult, 8 were about right, 13 were fairly easy, and 7 were easy question.

Home											
Insert		Draw		Page Layout		Formulas		Data		Tell me	
Clipboard		Font		Alignment		Number		Conditional Formatting		Cells	
%		%		%		%		%		%	
Format as Table		Format as Table		Format as Table		Format as Table		Format as Table		Format as Table	
Cell Styles		Cell Styles		Cell Styles		Cell Styles		Cell Styles		Cell Styles	
Share		Comments		Share		Comments		Share		Comments	
Analyse Data		Sensitivity		Analyse Data		Sensitivity		Analyse Data		Sensitivity	
F35											
Q#	Question type	Question nar	Attempts	Facility index	Standard dev	Random que	Intended we	Effective we	Discriminatio	Discriminati	
11	Multiple cho	Referring to	152	33.55%	47.37%	20.00%	3%	1.53%	-5.92%	-7.94%	
29	Multiple cho	In Islam, Alr	152	33.55%	47.37%	20.00%	3%	3.64%	21.73%	28.87%	
1	Multiple cho	A 24-year-ol	152	42.76%	49.64%	20.00%	3%	2.66%	4.45%	5.52%	
25	Multiple cho	Which of the	152	53.95%	50.01%	20.00%	3%	4.47%	36.36%	44.39%	
14	Multiple cho	Which of the	152	56.58%	49.73%	20.00%	3%	3.83%	23.16%	28.29%	
26	Multiple cho	Which of the	152	57.89%	49.54%	20.00%	3%	3.12%	11.03%	13.25%	
2	Multiple cho	A 25-year-ol	152	58.55%	49.43%	20.00%	3%	2.99%	9.15%	11.15%	
3	Multiple cho	A 35-year-ol	152	58.55%	49.43%	20.00%	3%	3.74%	21.63%	26.29%	
23	Multiple cho	Which of the	152	59.87%	49.18%	20.00%	3%	4.00%	27.04%	32.92%	
9	Multiple cho	Observation	152	60.53%	49.04%	20.00%	3%	3.38%	15.59%	19.08%	
17	Multiple cho	Which of the	152	70.39%	45.80%	20.00%	3%	4.02%	31.38%	39.30%	
20	Multiple cho	Which of the	152	70.39%	45.80%	20.00%	3%	4.06%	32.15%	40.24%	
21	Multiple cho	Which of the	152	70.39%	45.80%	20.00%	3%	3.30%	16.93%	21.26%	
15	Multiple cho	Which of the	152	71.71%	45.19%	20.00%	3%	2.90%	10.91%	13.65%	
22	Multiple cho	Which of the	152	73.03%	44.53%	20.00%	3%	3.60%	23.92%	30.14%	
24	Multiple cho	Which of the	152	73.03%	44.53%	20.00%	3%	3.44%	20.81%	26.57%	
30	Multiple cho	Which of the	152	73.03%	44.53%	20.00%	3%	3.99%	32.19%	40.58%	
6	Multiple cho	An eleven-m	152	74.34%	43.82%	20.00%	3%	3.18%	16.64%	21.37%	
13	Multiple cho	Which of the	152	74.34%	43.82%	20.00%	3%	3.20%	17.03%	21.76%	
12	Multiple cho	Review of a	152	75.00%	43.44%	20.00%	3%	3.44%	21.82%	27.81%	
8	Multiple cho	CK, an endogen	152	75.66%	43.06%	20.00%	3%	3.68%	27.17%	35.03%	
19	Multiple cho	Which of the	152	76.97%	42.24%	20.00%	3%	3.54%	25.05%	32.51%	
16	Multiple cho	Which of the	152	79.61%	40.43%	20.00%	3%	3.54%	27.16%	36.10%	
4	Multiple cho	A 63-year-ol	152	80.92%	39.42%	20.00%	3%	3.47%	26.86%	36.95%	
18	Multiple cho	Which of the	152	81.58%	38.89%	20.00%	3%	2.65%	11.81%	16.28%	
27	Multiple cho	Which of the	152	83.55%	37.19%	20.00%	3%	3.96%	41.98%	60.36%	
5	Multiple cho	A medical dc	152	87.50%	33.18%	20.00%	3%	1.94%	5.09%	7.75%	
10	Multiple cho	Referring to	152	88.16%	32.42%	20.00%	3%	2.75%	19.70%	30.55%	
7	Multiple cho	CK, a 2-year-	152	88.82%	31.62%	20.00%	3%	3.37%	35.40%	56.53%	
28	Multiple cho	Which of the	152	88.82%	31.62%	20.00%	3%	2.63%	18.07%	28.52%	

QUESTION ANALYSIS

DISCRIMINATION INDEX

Discrimination index is the correlation between the score for a specific question and the overall score. It describes the effectiveness of the question in distinguishing able students from less able students.

A good discriminating question shall be answered correctly by the able students, and vice versa. The index is interpreted as detailed in Table 2.

TABLE 2. INTERPRETATION OF DISCRIMINATIVE INDEX OF QUESTIONS IN QUIZ IN ITALE'EM. ADOPTED FROM MOODLE.ORG (2019).

Discriminative index (%)	Interpretation
<50	Very good discrimination
30-50	Adequate discrimination
20-29	Weak discrimination
0-19	Very weak discrimination
<0	Question probably invalid

QUESTION ANALYSIS

DISCRIMINATION INDEX

In this example below, out of 30 questions, 1 question was invalid, 12 had very weak discrimination, 11 had weak discrimination, and 6 had adequate discrimination. None of the question had very good discrimination index.

Q#	Question type	Question nar	Attempts	Facility index	Standard dev	Random gue	Intended we	Effective we	Discriminatio	Discrimina
1	11	Multiple cho Referring to	152	33.55%	47.37%	20.00%	3%	1.53%	-5.92%	-7.94%
2	1	Multiple cho A 24-year-ol	152	42.76%	49.64%	20.00%	3%	2.66%	4.45%	5.52%
3	5	Multiple cho A medical dc	152	87.50%	33.18%	20.00%	3%	1.94%	5.09%	7.75%
4	2	Multiple cho A 25-year-ol	152	58.55%	49.43%	20.00%	3%	2.99%	9.15%	11.15%
5	15	Multiple cho Which of the	152	71.71%	45.19%	20.00%	3%	2.90%	10.91%	13.65%
6	26	Multiple cho Which of the	152	57.89%	49.54%	20.00%	3%	3.12%	11.03%	13.25%
7	18	Multiple cho Which of the	152	81.58%	38.89%	20.00%	3%	2.65%	11.81%	16.28%
8	9	Multiple cho Observation	152	60.53%	49.04%	20.00%	3%	3.38%	15.59%	19.08%
9	6	Multiple cho An eleven-m	152	74.34%	43.82%	20.00%	3%	3.18%	16.64%	21.37%
10	21	Multiple cho Which of the	152	70.39%	45.80%	20.00%	3%	3.30%	16.93%	21.26%
11	29	Multiple cho In Islam, Alr	152	33.55%	47.37%	20.00%	3%	3.64%	21.73%	28.87%
12	13	Multiple cho Which of the	152	74.34%	43.82%	20.00%	3%	3.20%	17.03%	21.76%
13	28	Multiple cho Which of the	152	88.82%	31.62%	20.00%	3%	2.63%	18.07%	28.52%
14	10	Multiple cho Referring to	152	88.16%	32.42%	20.00%	3%	2.75%	19.70%	30.55%
15	24	Multiple cho Which of the	152	73.03%	44.53%	20.00%	3%	3.44%	20.81%	26.57%
16	3	Multiple cho A 35-year-ol	152	58.55%	49.43%	20.00%	3%	3.74%	21.63%	26.29%
17	29	Multiple cho In Islam, Alr	152	33.55%	47.37%	20.00%	3%	3.64%	21.73%	28.87%
18	12	Multiple cho Review of a :	152	75.00%	43.44%	20.00%	3%	3.44%	21.82%	27.81%
19	14	Multiple cho Which of the	152	56.58%	49.73%	20.00%	3%	3.83%	23.16%	28.29%
20	22	Multiple cho Which of the	152	73.03%	44.53%	20.00%	3%	3.60%	23.92%	30.14%
21	19	Multiple cho Which of the	152	76.97%	42.24%	20.00%	3%	3.54%	25.05%	32.51%
22	4	Multiple cho A 63-year-ol	152	80.92%	39.42%	20.00%	3%	3.47%	26.86%	36.95%
23	23	Multiple cho Which of the	152	59.87%	49.18%	20.00%	3%	4.00%	27.04%	32.92%
24	16	Multiple cho Which of the	152	79.61%	40.43%	20.00%	3%	3.54%	27.16%	36.10%
25	8	Multiple cho In endogeno	152	75.66%	43.06%	20.00%	3%	3.68%	27.17%	35.03%
26	17	Multiple cho Which of the	152	70.39%	45.80%	20.00%	3%	4.02%	31.38%	39.30%
27	20	Multiple cho Which of the	152	70.39%	45.80%	20.00%	3%	4.06%	32.15%	40.24%
28	30	Multiple cho Which of the	152	73.03%	44.53%	20.00%	3%	3.99%	32.19%	40.58%
29	7	Multiple cho CK, a 2-year-	152	88.82%	31.62%	20.00%	3%	3.37%	35.40%	56.53%
30	25	Multiple cho Which of the	152	53.95%	50.01%	20.00%	3%	4.47%	36.36%	44.39%
31	27	Multiple cho Which of the	152	83.55%	37.19%	20.00%	3%	3.96%	41.98%	60.36%
32										

CONCLUSION

There are dozens of types of whole grains. here are some of the most common ones.



AUTOMATED

1The quiz feature in i'TaleEM offers an automated analysis of quality of questions.

FEASIBLE

Analysing the quality and power of questions in i'TaleEM quiz is fairly easy and straight-forward.



USER-FRIENDLY

It is highly recommended to use this feature for future assessment

Centre for Professional Development (CPD)

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I-TALEEMC QUIZ SERIES: ANALYSING THE QUESTIONS

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