Using QMplus quizzes to develop students' understanding of cohesion, coherence and criticality in academic writing

Will Hutton and Christian Ilbury

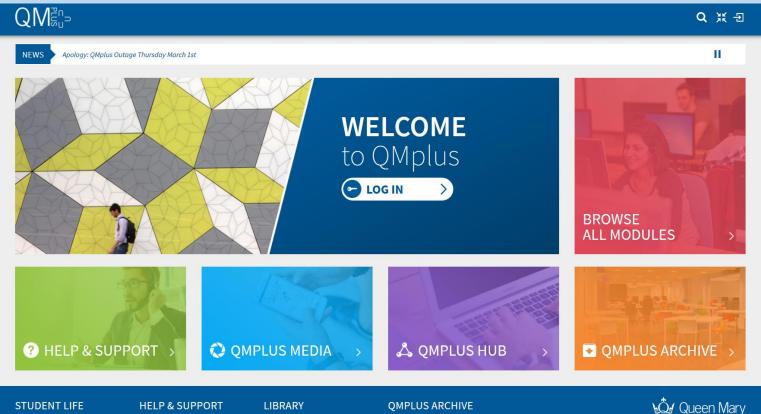
Queen Mary University of London

CPD Conference, The Language Centre

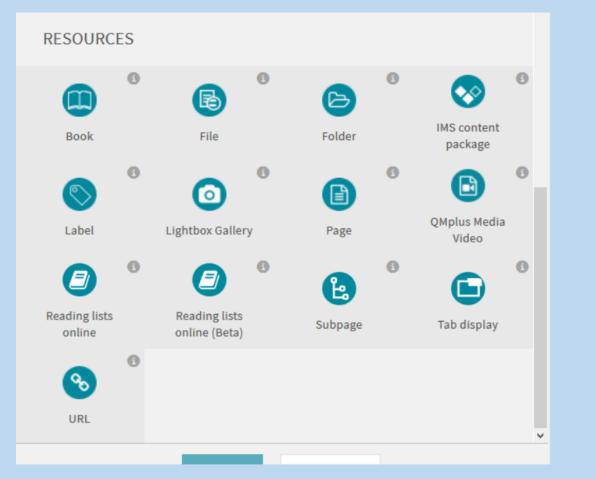
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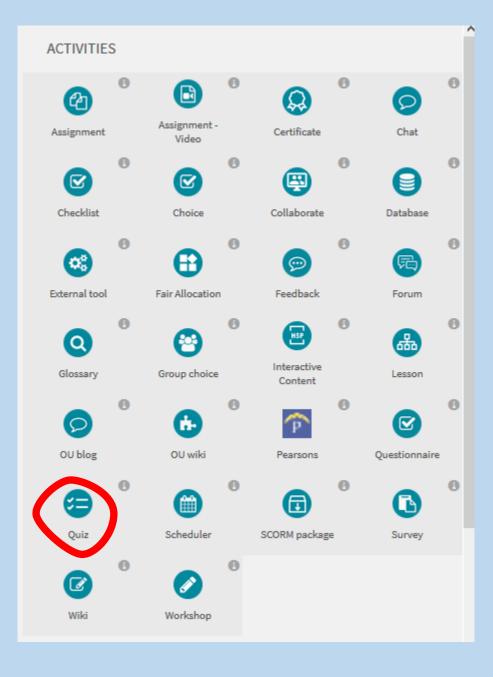
Overview

- The context
- The E-learning Production Scheme
- Our approach
- The Production Process
- Some examples from our question bank
- Initial assessment



QM's VLE – QMplus using the Moodle platform





SETTINGS

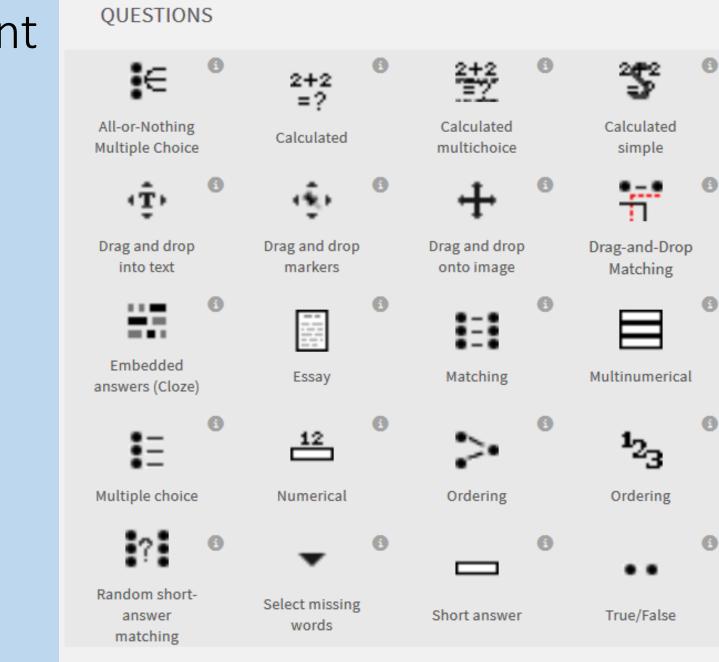
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 - Export
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What are Quizzes in Moodle?

Quiz Questions sit in the **Question Bank** within a given Course Area in OMplus. They can be deployed in **Quizzes** (which can be shared between Course Areas using a **Sharing Cart**) and can also be exported and imported out of or into QMplus.

'Wiley (2000) and Lehman (2007) defined a **'learning object'** as a <u>reusable</u> <u>digital component</u> that can be selectively applied alone or in combination by computer software, learning facilitators, or the learners themselves to meet individual needs for learning or support their performance.' (cited in Cohen and Sasson, 2016: 203)

Variety of different question types possible



Why use Moodle Quizzes?

- Positive student perception of the possibility to practice and improve, students 'appreciated in a positive way its immediacy', helped manage their understanding of their level and progress, motivated students' learning, provide practice and contact with the subject (Pinto-Llorente et al., 2016: 823-824)
- Enable greater interaction and allow students to make decisions on their studies and 'build their knowledge based on their experiences' (Cohen and Sasson, 2016: 203)

The E-learning Production Scheme

Several calls through the year

E-learning Unit fund pieces of e-learning development that an individual academic may not have the time or skills to do themselves

E-learning Unit recruit and train an E-Learning Assistant to work on the production scheme with the support of a Learning Technologist

- is a new activity or initiative for you or your course;
- makes use of learning technologies (i.e locally supported technologies such as QMplus, QMplus Hub, QMplus Media, Q-Review or external to QMUL;
- is **self-contained** i.e. has a start and an end date;
- is **sustainable** i.e. it will continue without intensive ELU input after the project has finished;
- is small i.e. requires 2 or 4 weeks of an E-Learning Assistant's time; and
- cannot be funded with your existing departmental teaching budget



Our approach

Objective: to create a bank of formative quiz questions that focus on raising Language Centre students' awareness of three areas in writing: **cohesion**, **coherence** and **criticality**

What? Why?



Cohesion and *coherence* are terms used in discourse analysis and text linguistics to describe the properties of written texts.

A text may be cohesive without necessarily being coherent: Cohesion does not spawn coherence. Cohesion is determined by lexically and grammatically overt intersentential relationships, whereas coherence is based on semantic relationships.

Phew too difficult! Can anyone please explain the meanings, differences and examples of these to me, in simple and easy English?

differences linguistics



Cohesion describes the way in which a text is tied together by linguistic devices, such as *And so* we see ..., *Additonally* ..., *Therefore* ..., *However* ... and *On the other hand* ...

A text has **coherence** if its constituent sentences follow on one from the other in an orderly fashion so that the reader can make sense of the entire text.

share improve this answer

Source: https://english.stackexchange.com/questions/48481/what-are-coherence-and-cohesion-in-text-linguistics

Gathering the sources texts

- Call for texts from colleagues
- Texts that have a QM connection in the main from the QM website with some articles written by QM academics
- (Still) seeking examples that would lend themselves to Quizzes

The Production Process

FP3000 - ENGLISH LANGUAGE AND STUDY SKILLS - 2017/18

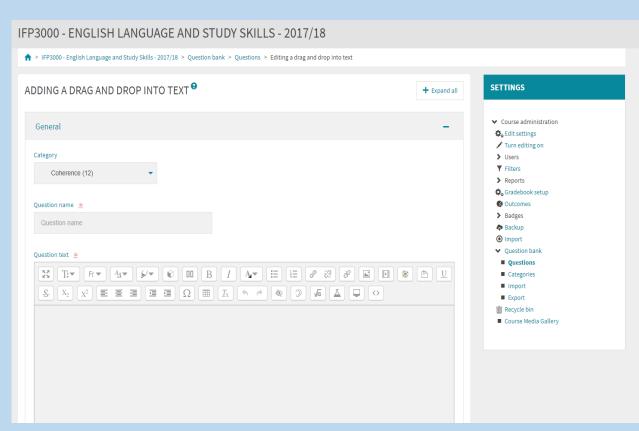
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The Production Process



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The following is an excerpt from an article entitled "'Why I sing the blues' – emotional healing and Southern ecstasy" published by QMUL's History of Emotions Blog. Arrange the sentences into a logical and coherent order.

Default mark 📩

1

General feedback

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1: What's the point of music? Evolutionary psychologists have come up with various answers - Steven Pinker famously declared music was like cheesecake - ultimately pointless, an evolutionary side-effect or spandrel of other functional aspects of consciousness.

This is the first paragraph because it sets the topic of the discussion. The first sentence is a rhetorical question – a common strategy used to draw the audience in. The following points regarding Steven Pinker suggest to the reader what may come next.

2: Others have suggested the 'function' of music is sexual display and courtship, language learning and maternal bonding, collective identity or well-being and emotional healing.

The use of the noun 'Others' in sentence initial position seems to suggest that there is some contrast with an alternative view point. This sentence comes second because we have already established one viewpoint in the first sentence – Steven Pinker's viewpoint.

3: The answer is it's all these things - music is whatever we want it to be.

This sentence must follow one and two because the 'things' refer to the possible ideas about 'the point of music' discussed in the first two sentences.

Some examples from our question bank

Cohesion – 🔹 Drag and Drop

Understanding cohesion

The following is an excerpt from an academic research article entitled "Prospective association between handgrip strength and cardiac structure and function in UK adults", published by scholars based at QMUL's **William Harvey Research Institute**. Select the cohesive devices in order to complete the sentences.

, several pathways have been proposed through which sarcopenia, a cause of low handgrip strength, could contribute to heart failure with preserved ejection fraction. are activation of systemic inflammation and insulin resistance. Cardiac changes seen in patients with heart failure with preserved ejection fraction include concentric left ventricular remodeling and concentric hypertrophy. , the observed association between handgrip strength and CVD incidence may be due to less cardiac remodeling and hypertrophy among individuals with better handgrip strength. The use of

, no studies exist that have described the relationship with handgrip strength.

cardiac magnetic resonance (CMR) imaging is the reference standard to accurately determine cardiac structure and function.



Among those

Check

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But

In sum Thus

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QUESTION **1** Partially correct Marked out of 1.00

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Understanding cohesion

The following is an excerpt from an academic research article entitled "Prospective association between handgrip strength and cardiac structure and function in UK adults", published by scholars based at QMUL's **William Harvey Research Institute**. Select the cohesive devices in order to complete the sentences.

Thus X, several pathways have been proposed through which sarcopenia, a cause of low handgrip strength, could contribute to heart failure with preserved ejection fraction. However X are activation of systemic inflammation and insulin resistance. Cardiac changes seen in patients with heart failure with preserved ejection fraction include concentric left ventricular remodeling and concentric hypertrophy. Recently X, the observed association between handgrip strength and CVD incidence may be due to vertex cardiac remodeling and hypertrophy among individuals with better handgrip strength. The use of cardiac magnetic resonance (CMR) imaging is the reference standard to accurately determine cardiac structure and function. Among those X, no studies exist that have described the relationship with handgrip strength.



In sum	caused	But
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Your answer is partially correct.

You have correctly selected 1.

1: <u>Recently</u>, several pathways have been proposed through which sarcopenia

The correct word is 'Recently'. Since this sentence discusses that 'several pathways have been proposed', we assume that these suggestions were made in recent times.

2: Among those are activation of systemic inflammation and insulin resistance

This sentence directly corresponds with the 'several pathways' that were introduced in 1, with 'Among those' referring to 'one of several pathways proposed'.

3: Thus, the observed association between handgrip strength and CVD incidence

'Thus' means 'as a consequence'. It is logical that 'thus' the correct word here because the consequence directly relates to the information in sentence 2.

4: handgrip strength and CVD incidence may be due to less cardiac remodeling and hypertrophy among individuals with better handgrip strength

Cohesion – • Select missing words

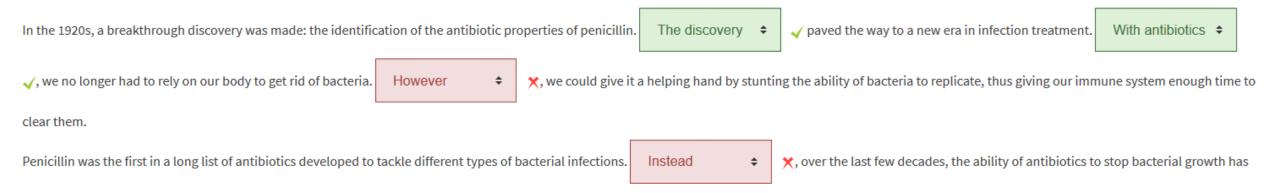
Understanding Cohesion

The following is an excerpt of text from 'How the brain helps the body fight bacteria', an article written for the Conversation by **Dr Jesmond Dalli** (QMUL, WHRI). In this question, select the missing transitional terms and their appropriate position in order to complete the text.

In the 1920s, a breakthrough discovery was made: the identification of the antibiotic properties of penicillin.			Choose \$		
paved the way to a new era in infection treatment	. Choose	\$, we no longer had to rely on o		eria.
Choose + , we could give it a help	ng hand by stuntin	ig the a	bility of bacteria to replicate, thu	The discovery With antibiotics However	em
enough time to clear them.					

Penicillin was the first in a long list of antibiotics developed to tackle different types of bacterial infections. Choose... +

The following is an excerpt of text from 'How the brain helps the body fight bacteria', an article written for the Conversation by **Dr Jesmond Dalli** (QMUL, WHRI). In this question, select the missing transitional terms and their appropriate position in order to complete the text.



become considerably limited and increasing numbers of bacterial strains are becoming resistant to antibiotic treatment. The threat of antibiotics resistance has prompted the scientific community to seek alternative ways to deal with bacterial infections.

Your answer is partially correct.

You have correctly selected 2.

1: The discovery paved the way to a new era in infection treatment

In this sentence, '[t]he discovery' refers directly to the referent in the preceding sentence: The identification of the antibiotic properties of penicillin.

2: With antibiotics, we no longer had to rely on our body to get rid of bacteria

The use of '[w]ith' in this sentence, means 'by means of'. This sentence relies on the introduction of 'penicillin' as a specific type of antibiotics (as discussed in prior sentences) and then extends this to the more general 'antibiotics'.

3: Instead, we could give it a helping hand by stunting the ability of bacteria to replicate, thus giving our immune system enough time to clear them

'Instead' here refers to a contrast of the preceding information that before the breakthrough discovery of antibiotics, we would rely on the immune system to fight bacteria.

4: However, over the last few decades, the ability of antibiotics to stop bacterial growth has become considerably limited and increasing numbers of bacterial strains are becoming resistant to antibiotic treatment

'However' is a term that has a contrastive function. In this text it is used to introduce a point that contradicts the previous point "Penicillin was the first in a long list of antibiotics developed to tackle different types of bacterial infections.".

Cohesion – ⊨ Multiple choice

The following excerpt is from a report entitled '750 million people worldwide suffering from severe gum disease', which discusses research by QMUL's Professor Wagner Marcenes. Select all the possible correct sentence linking words and phrases in order to complete the sentence.

The prevalence of severe periodontitis has remained the same in the last 20 years, but the number of cases has increased dramatically. This is ______ a growing world population - associated with an increasing life expectancy - and a significant decrease in the prevalence of total tooth loss throughout the world from 1990 to 2010.



Select one or more:

- a. despite
- b. in sum of
- C. equal to
- d. a consequence of
- e. nevertheless
- f. because of
- 🔲 g. in spite
- h. due to

Check

The following excerpt is from a report entitled '750 million people worldwide suffering from severe gum disease', which discusses research by QMUL's Professor Wagner Marcenes. Select all the possible correct sentence linking words and phrases in order to complete the sentence.

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ct one or more:	
a. despite	
b. in sum of	
c. equal to	
d. a consequence of 🖌	
e. nevertheless	
f. because of 🖌	
g. in spite	
h. due to 🗸	

Your answer is correct.

The correct answers are "due to/ because of/ a consequence of" because all of these phrases refer to some relationship between the number of cases of severe periodontitis and a growing world population.

Coherence - 🏱 Ordering

Understanding coherence

The following is an excerpt from website of '**the Pathology Museum**' located at QMUL. The article discusses 'The skull of John Bellingham'. Arrange the paragraphs into a logical and coherent order.



The trade of the Ressurection Men was unsavoury but it was necessary practice if young medics were to train to become doctors and surgeons.

While we do not have much information about this skull, we do know the museum acquired it because the punishment for murder at that time was to be "hanged and anatomised".

The skull of John Bellingham is a very unique specimen. In May 1812 John Bellingham assassinated the British Prime Minister.

Prior to the Anatomy Act of 1832, there were two ways in which Medical Schools such as the one here at St Bartholomew's Hospital, established around 1790 by John Abernethy, acquired cadavers for teaching: They were prisoners sentenced to death and then dissection, or they were purchased from Ressurection Men.

Check



√The skull of John Bellingham is a very unique specimen. In May 1812 John Bellingham assassinated the British Prime Minister.

Vhile we do not have much information about this skull, we do know the museum acquired it because the punishment for murder at that time was to be "hanged and anatomised".

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*Prior to the Anatomy Act of 1832, there were two ways in which Medical Schools such as the one here at St Bartholomew's Hospital, established around 1790 by John Abernethy, acquired cadavers for teaching: They were prisoners sentenced to death and then dissection, or they were purchased from Ressurection Men.

Your answer is partially correct.

1: The skull of John Bellingham is a very unique specimen. In May 1812 John Bellingham assassinated the British Prime Minister.

This must be the first paragraph because it establishes the topic of the article 'The skull of John Bellingham' and introduces who John Bellingham was.

2: While we do not have much information about this skull, we do know the museum acquired it because the punishment for murder at that time was to be "hanged and anatomised".

The use of the phrase 'this skull' suggests that 'the skull' that this term refers to has been introduced in earlier paragraphs. Since paragraph one introduces the topic: John Bellingham, it is logical that this paragraph will follow paragraph one.

3: Prior to the Anatomy Act of 1832, there were two ways in which Medical Schools such as the one here at St Bartholomew's Hospital, established around 1790 by John Abernethy, acquired cadavers for teaching: They were prisoners sentenced to death and then dissection, or they were purchased from Ressurection Men.

Although this paragraph does not immediately appear to link to any of the points made in paragraph 1 and 2, we see that the paragraph introduces why QMUL stores John Bellingham's skull. Secondly, the term 'Ressurection men' is referred to in paragraph 4.

4: The trade of the Ressurection Men was unsavoury but it was necessary practice if young medics were to train to become doctors and surgeons.

It seems likely that this is the last paragraph because it refers to an entity 'Ressurection Men' which has been introduced in paragraph 3.

Criticality – • Select missing words

Understanding criticality

This is an extract from an aricle entitled *Acoustic analysis of cattle (Bos taurus) mother–offspring contact calls from a source–filter theory perspective.* The words and phrases in bold help to build the level of **criticality** in the writing. Decide what their function is.

In species that live in large social groups, individual recognition between parents and offspring using vocal cues is especially likely	Choose	\$	to occur, because of the high risk of
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confusion between individuals (e.g. goat, Briefer and McElligott, 2011a; sheep, Sèbe et al., 2007). Our results show that both cow and calf contact calls are individually distinctive. All acoustic parameters analysed

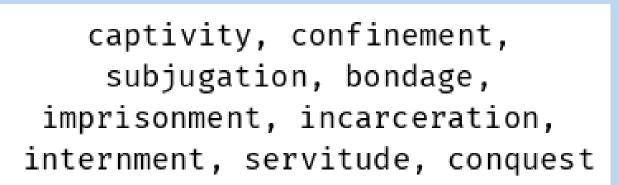
(including both source- and filter-related factors) have the potential to Choose	be used for individual recognition, a	s Choose	\$	their
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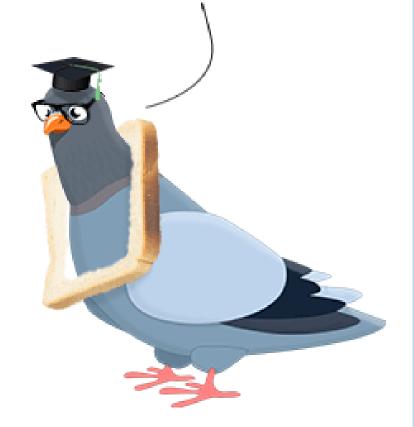
intra-individual variability is smaller than their inter-individual variability (PIC scores greater than 1). However, for cow HFCs and calf calls, the Discriminant Function Analysis (DFA) revealed that the most important

factors for individual identity are the filter-related vocal parameters (formant frequencies). Indeed	Choose \$	the first principal component mostly correlated with formant		
measures that loaded highly on the first discriminant function of the DFA. By contrast, Choose	Choose - a linker for emphasis - a phrase to stress a possibility	ated parameters (fundamental frequenc	y contour) and energy	
quartiles were the most important factors for individual identity in cow LFCs. The individuality cue	a contract linker	¢	allow cows and calves to	
recognise each other vocally within social groups. Further playback experiments are needed to test	a conjunction to introduce a reason a phrase to suggest a possibility	es for individual recognition		



what's the opposite of liberation?





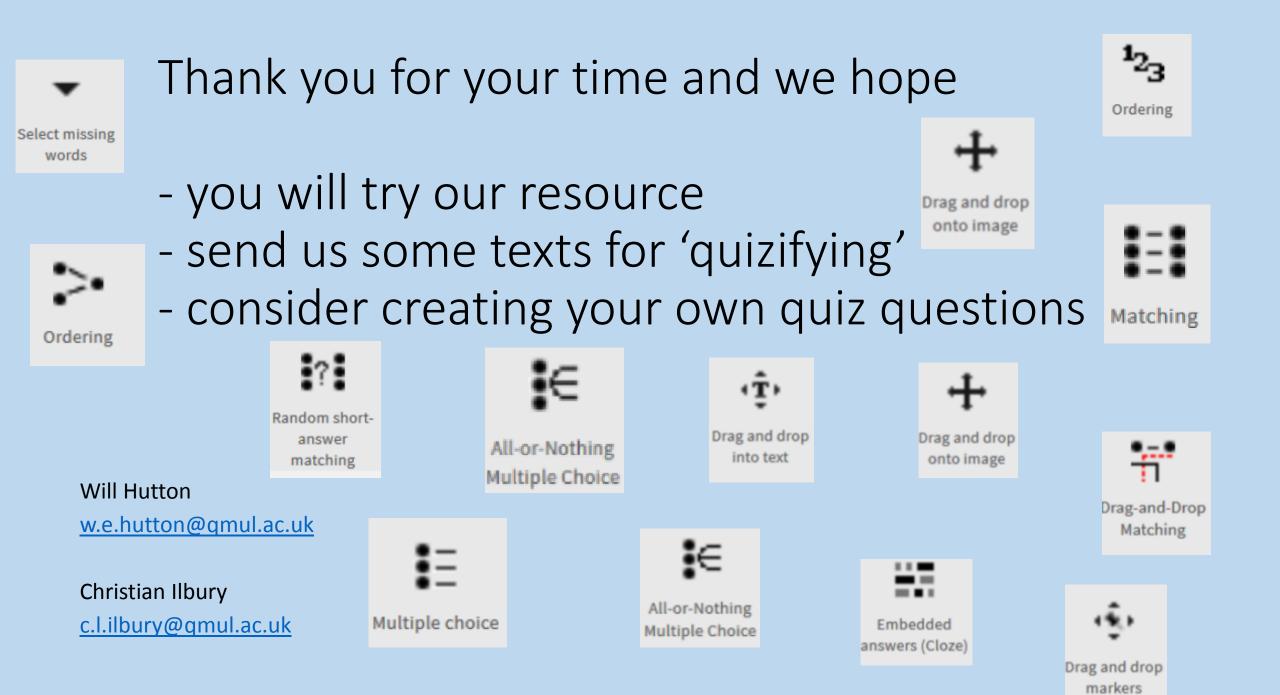


(Very) Initial assessment

Liberation	Enslavement
Versatile	Time-consuming
Supplementary	Clunky
Interactive	Insubstantial
QM-specific	Siloed
Formative	Dependent
Self-directed	
Challenging	
Informative	
Repeatable	
Environmental	
Integrable	

Next steps

- Project completion <u>more texts please</u>
- Revision
- Trialling
- Promotion
- Review



References

Cohen, Donita, and Irit Sasson. "Online Quizzes in a Virtual Learning Environment as a Tool for Formative Assessment." *Journal of Technology and Science Education*, vol. 6, no. 3, 2016, pp. 188-208.

Pinto-Llorente, Ana, et al. "The use of Online Quizzes for Continuous Assessment and Self-Assessment of Second-Language Learners" In *Proceedings of the Fourth International Conference on Technological Ecosystems for Enhancing Multiculturality* (TEEM '16), Francisco José García-Peñalvo (Ed.), 2016, pp. 819-824.