

MOOCchat | Online peer discussion of difficult concepts

Peer discussion in small groups is widely recognised as a key driver of learning in both face-to-face and online learning environments.

MOOCchat sessions facilitate critical thinking and debate in small groups. A good discussion involves thinking reflectively, constructing and deconstructing arguments or ideas and making judgements based on evidence of some kind.

Our research indicates that students who fully participated in MOOCchat achieved an improved understanding of core course concepts.

The tool allows teaching staff to:

- provide opportunities for focused discussion where students can check + clarify their thinking;
- quickly analyse chat conversations; and
- assess student engagement during the chat.

For assessment it is possible to:

- mark individuals' contributions to the group's discussion and/or correct/incorrect responses; and
- provide students with feedback about their ability to participate in critical discourse and to collaborate with others to solve a problem.

Who's doing it

The MOOCchat project builds on work originating from UC Berkeley's MOOC Lab. MOOCchat has been used by ENGG1200 (n≈1000) since 2014 with demonstrated gains in student learning.

Acknowledgments

The project is supported by Faculty of Engineering, Architecture and Information Technology (EAIT) Teaching and Learning strategic funding.



Project lead

A/Prof Carl Reidsema, EAIT Faculty

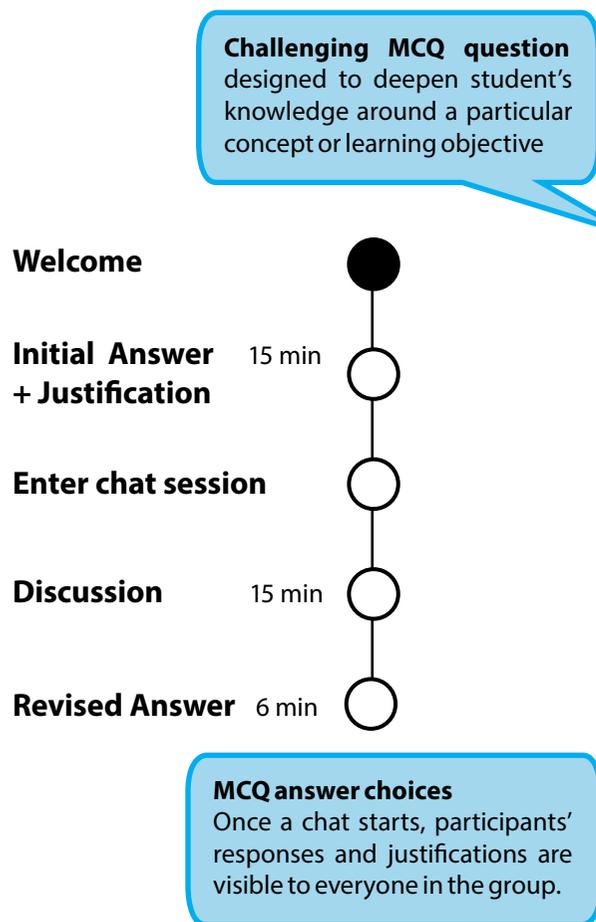
Interested in using MOOCchat?

Contact us:

Email: elipse@eait.uq.edu.au
Phone: 07 3346 1301

How does MOOCchat work?

When students enter MOOCchat they are given a challenging MCQ question designed to deepen their knowledge around a particular concept or learning objective. They are asked to select the correct answer with written reasoning for their response. Then they are allocated to a 3-person text-based chat session where they are able to view each other's responses and discuss their choices in relation to the concepts involved. When the chat session terminates, students are allowed to change their initial response.



Question

This is a real life question from a job interview.

At present a company is experiencing an issue with ants exposing copper telecommunications lines. This results in failure of the lines connection.

The cable used has a mass of 0.7kg/m and the line is planned to stretch to 100km between remote townships. The current price of copper is \$7000/tonne and the value of plant equipment for this project is \$2,000,000.

Using your knowledge of design and materials, what solution from those below would you think was applied to prevent this ant damage from occurring?

Answers

A The application of a very thin steel foil layer to the cable to prevent the ants from eating into it. This would be done by Electrophoretic deposition

2 Steel is a metal, so it would better suit copper, 'cause it's also a metal.

B The application of a thin, flexible ceramic layer to the cable to prevent the ants from eating into it. This would be done by Electrophoretic deposition

C The application of a thicker polymer sheath to the cable to prevent the ants from eating into it. This would be done via fibre extrusion

3 Cables need to be flexible and they already have the polymer sheath which have been used for a long time. It just needs to be thicker to prevent ants getting to it.

No change to the material, it was decided that the best solution was to simply increase the frequency with which the cables were

Your discussion group has 3 members
You are Person #3

Talk with your group to develop a better understanding of the question and everyone's reasoning.
You can find group answers in the answers pane on the left.

3 Hey

2 Hi

1 What's up

Why do you think replacing it is better #1?

3 It's going to be expensive

1 I don't think thin layers are going to help in any case

2 Steels and ceramics might still be enough to prevent ants chewing the cable

How would you get ceramic onto a cable?

3 Wouldn't it not be flexible enough?

[Type your message... Send]

End chat and revise answer

The chat log displays participants' discussion

Text entry