



LACOL/SERC

Q-bits Portal



Testing Q-bits in the Classroom

A primer for faculty on testing Q-bits



LACOL/SERC

Q-bits Portal



Overview

- What are Q-bits? (a brief tour)
- Options for using Q-bits with your students
- The research goals for our pilot project
- How to get started and support
- Questions



LACOL/SERC

Q-bits Portal



What are Q-bits?

- Online modules in your LMS that provide students with the opportunity to review and practice their quantitative skills with examples from different disciplinary contexts.
- Three Q-bits will be tested in Fall 2017:
 - Logarithms
 - Linear functions
 - Choosing a graph to visualize data



LACOL/SERC

Q-bits Portal



What are the components of a Q-bit?

Pre-check	Multiple choice questions along with confidence ratings
Intro context video	Video by LACOL faculty member highlighting how the quantitative skill is relevant in their discipline
Instructional video	Curated instructional videos or other packaged presentation of quantitative content
Application problems	3 or more example problems for students to work demonstrating the relevance in various disciplinary contexts
Post-check	Multiple choice questions along with confidence ratings



LACOL/SERC

Q-bits Portal



What are the components of a Q-bit?

Logs Q-bit

<https://moodle.carleton.edu/course/view.php?id=26144>



LACOL/SERC

Q-bits Portal



Using Q-bits with your class

Q-bits can be used in your course in any number of ways:

- Link to relevant Q-bit(s) from your course page
- List Q-bits as a resource on the syllabus
- Incorporate Q-bits in a student assignment prompt
- Make Q-bits part of a class activity (required or optional) for individual students
- Ask students to look at a Q-bit outside of class and use it as the basis for in-class discussion or activities
- Other options...



LACOL/SERC

Q-bits Portal



Collaborative Research Goals

LACOL QS Research Goals, Fall 2017

- Do students use Q-bits when offered?
 - How do the demographics of the students who choose to use Q-bits instructional modules compare to the overall student demographics in a particular course?
 - Are there differences in the extent the modules are used that relate to how instructors makes Q-bits available?
- What impacts, if any, are possible to detect with this small intervention?
- By collecting data across colleges and courses, we gain better evidence about how instructors use the Q-bits, the effectiveness of Q-bits, and how to improve them
- We plan to apply for NSF IUSE funding in December 2017



LACOL/SERC

Q-bits Portal



How to get started using Q-bits

- Let us know what Q-bits you would be interested in testing:
https://serc.carleton.edu/qbits/test_plan.html
- Contact your IT liaison to make sure the appropriate Q-bits are set-up in your school's LMS:

Amherst College: Andy Anderson

Bryn Mawr College: Christine Boyland

Carleton College: Carly Born

Haverford College: Sharon Strauss

Swarthmore College: Andrew Ruether

Vassar College: Christopher Gahn

Washington & Lee University: Brandon Bucy

Williams College: Jonathan Leamon

- Early in your course, give your students an overview of Q-bits; explain how and why you would like them to use Q-bits in the context of your course.
- Ask every student in your course to complete the online consent form (whether or not they use the Q-bit)



LACOL/SERC

Q-bits Portal



Fall term testing

- Use Q-bits as you see fit
- Ask all students who have used Q-bits to complete the student reflection survey by mid-November
- Complete faculty reflection form by mid-November
- For detailed information see the Q-bit testing guide:
https://serc.carleton.edu/qbits/test_guide.html
- Contact Monica Bruckner mbruckne@carleton.edu for support



LACOL/SERC

Q-bits Portal



Questions?

Sign up for testing: https://serc.carleton.edu/qbits/test_plan.html

Tester's guide: https://serc.carleton.edu/qbits/test_guide.html

Support contact: Monica Bruckner mbruckne@carleton.edu