LITT:
Lycoming Innovations in Teaching Technology

Turning Point/Moodle integration

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My original ideas for LITT

- Find/develop software to convert Backyard Brains
  audio of action potential spikes into visual graphs
  to allow quantitative analyses
  --do electrophysiology on a shoestring budget
  replace $40,000 e-phys rig with a few hundred $$
  of parts and software
  Verdict: no go, too course-specific

- Develop guided reading videos with my voiceover + textbook
  Verdict: no go, publisher won't allow it—copyright issues

- Try to integrate TurningPoint clickers with Moodle gradebook
  Verdict: Idea approved for an application to LITT

Background

Fall 2012—introduced clickers into Bio 110 Intro Bio
      quizzes at start of most classes,
      groupthink exercises in middle of many classes
      not used for actual grading—new technology (for Lyco)

Fall 2013—clickers in Bio 110 Intro Bio
      quizzes at start of most classes—graded
      but only worth 25 course points out of 1100 total
      used randomly selected quiz results as a sample

Fall 2014—clickers in Bio 110 Intro Bio
      quizzes at start of every class—graded
      worth 50 points out of 1150 total
      using all quiz results for each student

LITT proposal Strategic Goals

- Get students to look at course material in between classes

- Assess students' learning of key concepts

- Reduce grading time, allow more teaching time

- Reduce data entry time and potential for clerical errors

- Increase students' ability to see their quiz results quickly

LITT proposal tactics

Allow students to register their own clicker devices
within Moodle—instead of me typing it all in

Export participant lists with device IDs from Moodle
to TurningPoint

Import clicker quiz results to TurningPoint each day

Aggregate clicker quiz scores across weeks/semester
within Turning Point

Export quiz scores daily/weekly etc. from Turning Point
to Moodle grade book for student access
--attempt to get this to work automatically,
rather than by manual upload or .csv conversion

LITT proposal progress

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The plus side

- Students get to class on time!
- Most students report doing some review for the clicker quiz
- I get to see what they "get" and what they don't, every day

- No more typing in student names/device IDs for me!
- Ability to automatically email unregistered students reminders to enter their clicker IDs
- Automatic quiz grading—easy to set up correct/incorrect answers within TurningPoint
- No more separate spreadsheet for aggregating quiz grades
- No more hunting and re-sorting for students who drop, withdraw, or aren't taking the class for a grade
- Easy and quick to corroborate attendance within TurningPoint

Sticking points—clicker logistics

Lycoming bookstore keeps clickers behind the cash registers,
    so students think they're out of them when they're not

Lycoming bookstore charges $40 for clickers, when students
    can order them directly from TurningPoint for $28
    or buy them used from other students
    →next year I'll email them the link to do that in August

Non-student/non-clicker Moodle users for the course
    e.g. Diane, Study Group facilitators, Teaching Assistants,
    Bio majors reviewing for the MCAT and sitting in, fellow
    Professors touring for Moodle ideas
→take care to upload/download only data for "students" with
    devices used on any given day

Sticking points—Automatic uploads not yet a reality

Option 1: manually re-enter the results from TurningPoint
      into Moodle gradebook (yuck!)

Option 2: convert TurningPoint results files to .csv files
      and upload those to Moodle gradebook,
      IF the student names lists match exactly (more yuck!)

Option 3: integration macros
      So far—these are not working as advertised
      TurningPoint is aware of the problems
      I toyed with learning to program myself--but
      settled for harrassing the TurningPoint rep instead

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Acknowledgements

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    in the first place

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    technologies in our classrooms

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LITT committee—for providing some incentive and
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    technologies on campus