

**Cal Poly Quantitative Reasoning Learning Community 2015-16**  
**February 24, 2016**  
**10:10 am to 11:00 am (1-301)**

**Membership**

Jack Phelan/Acad Prog; Mary Pedersen/Acad Prog; Bruno Giberti/Architecture; CAED; Thomas Fowler/Architecture; Gary Clay/Landscape Architecture, Gary Laver/CLA; Susan Mackenzie/RPTA, Michael Latner/Political Science; Kevin Ross/Statistics; Todd Grundmeyer/Mathematics; Fred DePiero/CENG; Russ White/Library; Javier de la Fuente/OCOB

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1. Review [Meeting Notes Feb 17, 2016 \(PDF\)](#)
  - a. Meeting notes are approved.
2. Update from Gary Laver on [PSY 202 \(PDF\)](#): Formal count has been done. Two articles targeted towards QR. Plan are to stick with one of the two.
  - a. Strategy: Using Poly Learn for the process.
  - b. A conservative count total of 450 papers, at least a third of them going to the second article, so 150 papers for the article. A good sample size.
  - c. Hard copies will have Gary's comments. Poly Learn is the resource for soft copies, which will be the ones used for the assessment.
3. Identifying QR dimensions in the following assignments
  - (1) [MATH 112](#)
  - (2) [ECON 222](#)
  - a. Math 112 requires a lot of calculation. Is it possible to initiate collaboration with the faculty teaching the course next quarter to make modifications that align with rubric criteria?
  - b. For ECON 222, are we assessing the whole test or sample (embedded) questions from the test? It does not have to be entire test. It can be a single question. Example questions: ECON 222 question 3(A or b) and question 10 have potential to meet the criteria in the rubric. Question 3 would need modification to elicit more detailed responses from students.
4. Thread: How can we balance the quantitative reasoning "thread" against the assignments? How do we vet against the econ assignment?
5. For next quarter, we should assess an assignment in Math. Math 112 is a lecture, the instructor is teaching it this quarter and we can talk with her to see if is she is willing to work with us. She will teach 3 sections of Math 112 in Spring so the sample will be representative.
  - a. Can we introduce QR assessment rubrics into multiple courses? Looking into multiple sections will be step 2. Math 141 might not be best choice. Calculus can be an option, considering all the logistics, Math 112 is the preferred choice.
  - b. Calculus might not be an ideal choice for QR assessment, for engineering students it is a disciplinary tool, but for others it is not.

- c. We should work with the Math department. Let's try first to test Math 112. It is the easy way to test our instruments, and it can be a win-win situation for both the Math Dept and the QR committee
  - d. Next quarter it will be too difficult for calculus. Spring does not have many calculus courses.
  - e. Can we use department-based calculus courses? There are different versions of calculus courses for different departments e.g. ARCE and Life Sciences; they are more discipline-based rather than contextual.
  - f. Calculus depending upon who is teaching can be inquiry based (IBL) or traditional. For next quarter, we can look into the options; talk with the instructors to find out who would be interested to introduce QR based learning methods into coursework.
  - g. Have those courses been assessed in the department level? Calculus is a new facet in the department. So, not sure how these courses have been assessed.
  - h. Math 112 is good to start with for Spring quarter. We can create plans to introduce calculus in the fall.
  - i. Sample number: Lot of diversity in terms of classes from CLA in the Math 112 course. Math-based courses in CENG and CAED are pretty similar in the first year.
  - j. For next year, will the instructor continue the same assignment? We can see what else the lecturer teaching the 3 sections of Math 112 classes might develop. Todd will talk with the instructor of Math 112, what is the next step? Sharing the dimensions and rubric traits with the teacher. Can we bring the instructor to one of the meetings and introduce our plan with the committee? Todd will invite Joe Borzellini.
6. Our goal is to look at the student work only in the assessment, not the course or the faculty teaching – they are not the subject of the assessment. We are looking at foundational level assessment criteria rather than mastery level, although WASC wants to see what students have learned when they graduate and leave campus.
  7. Math department: We know Math department is assessing their own courses. Are they looking into the service component (courses that are offered by Math department to the other colleges)?
  8. We will focus on Math 112 this year, we will work with Math department and find instructors who are willing to incorporate QR assessment criteria, Todd will talk to Joe B, Department Chair and the Math Assessment Committee.
  9. Statistics example: One of the deficiencies is that we have not targeted Statistics. Engineering students take more advanced Statistics courses than other colleges. Math

and Statistics are not equivalent. So, they are considered distinctive tools.

10. Jack will send the current draft of the rubric electronically to everyone for response and critical feedback. We will follow up with Todd once he's able to speak with Joe B, the assessment committee and the lecturer teaching Math 112 next quarter.

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