Writing Labs to Connect Mathematics with Career and Life

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Writing Contextualized Labs

- Curriculum Improvement strategy
  - Use labs to create new learning activities
  - Take charge – faculty control curriculum change
  - Share – You are not alone!

- Writing labs connects math content to jobs, careers, and consumer contexts
- Using a student engagement approach, with support, increases learning opportunity

Why faculty-written labs?

- This is how you do QR!
- Relevance to school programs
  - Collaboration with colleagues is enriching
- Address local issues – Jobs in the community
- Instructor personality will inform choices
- Student needs & abilities are addressed
- Professional development
  - It’s challenging and interesting to look for new connections and learning materials
Curriculum Improvement is hard work

- Plan
- Do! Try the activity, try new strategies
- Understand there will be mistakes
- Model the learning process for students
- Communicate you will include fair grading when reflecting on a new activity
- Study–Reflect
- Revise – adjust directions, timing, etc., try it again

PLAN

Getting Started:

- Find an idea
  - Explore headlines
  - Find interesting graphics
  - Address a local controversy
  - Use a website or existing material and adapt lesson

- Create a focus for context or career
  - Personal Finance
  - Headline news
  - Career or program specific
Connect Content and Class

- Determine the SLO(s) for the particular class
- Determine the student engagement strategies to use with this particular assignment

Using a Template (macro)

- SLO's guide the activity. What do you want students to KNOW and BE ABLE TO DO when they complete the lab
- If adapting a resource, what parts will you keep? Change?
- Plan the rubric and what you will look for in the finished product
- Have a colleague review the draft

Using a Template (micro)

- Guidelines for instructors
  - Suggested time
  - Suggested rubric
  - Useful for sharing, for revising for future classes
- Handouts and directions for students
- Accessible for ADA requirements
- Be aware of Copyright issues
  - Cite sources
Do the activity

- Try new approaches to forming groups
- Use Flipping the Class strategies to have students come to class prepared for engaging with others
- Not everything needs to be graded – feedback and Formative Assessment strategies build student confidence

Study–Reflect–Revise

- How well did the lab activity accomplish the goals?
  - Content goals
  - Soft skills
  - Timing, directions, amount of material
- Group work consideration
  - Grouping strategies
  - Grading
    - Individual assignments
    - Group grades with individual accountability
    - HW prep required

Quantitative Reasoning (QR)
- example of adapting available resources

- National Numeracy Network
  - [http://serc.carleton.edu/nnn/index.html](http://serc.carleton.edu/nnn/index.html)
- Reality Math (Dot Sullock of UNC–A)
  - [http://www.realtemath.org](http://www.realtemath.org)
- Conferences
- Colleagues
Questions? Ideas?

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NCCCS Math–CIP Blackboard site

› Copy & paste the following link
› http://vlcbb.nccommunitycolleges.edu/webapps/portal/frameset.jsp
› The username is:
› mathcipguest
› The password is:
› mathcip (all lowercase)