The Online Math “Classroom” – Best Practices for Discussions

CCCOonline Math Department Webinar
Friday, August 23rd, 2013
1 – 2:30 pm
OVERVIEW OF WEBINAR:

- Why are Discussions important?
- How Discussions fit into “Classroom” Interaction
- Introductions Discussion
- Understanding the QA Rubric and how it relates to Discussions
- Examples based on the QA Rubric
- Re-Engagement strategies and examples
- Student-led discussions versus instructor-led discussions
- New, used and slightly used strategies
- Challenges
- Sharing experiences and Brainstorming (participation invited!)
- Resources
Why are Discussions important?

 Discussions:

- Promote a sense of community in the class
- Demonstrate instructor presence
- Invite students to ask questions and speak in the language of “math”
- Provide the instructor information about individual students
- Aid in assessment – instructors get a more complete picture of student achievement
- Take the “robot” out of online education

Why Discussions vs. Email or Grading Feedback?

- Discussions provide students the opportunity to interact with each other
- Discussions provide students with a written record of example problems, math questions and answers, and more
How Discussions fit into “Classroom” Interaction

- Multiple methods to promote interaction in the online “classroom”
  - News
    - Weekly Posts
    - Friendly Tone
    - Specific Information
    - Reminders
  - Discussion Threads
    - Topic-Related Discussions
    - Problem Solvers
    - Questions Thread
    - Instructor Led Discussions
    - Student Lounge
INTRODUCTIONS DISCUSSION

Why? Provides a classroom feel and sense of community

Strategies:
- Include useful and interesting prompts (e.g., Study tips, Who would star in a movie about you? Create and post your self-portrait)
- Share professional and personal information about yourself.
- Think of yourself hosting a party and welcome each student warmly. Remember that students are nervous and respond to kindness.
- Reply to every student introduction. Recognize students who welcome each other.
- Create multiple phrases to use: “Welcome to class, XX! I am so glad you are here”, “It’s so nice to meet you, YY”, “I am very happy to have you be part of this class, ZZ”, etc.
- Address at least 1-2 prompts from each student introduction. Ask a question if few prompts are given.
- Include a picture of yourself in your profile and encourage students to do the same.

New Ideas:
- Try a video introduction,
- Suggest a Skype meet-n-greet
- Other interactive strategies – Google hang-out http://www.google.com/+/learnmore/hangouts/
Understanding the QA Rubric and How It Relates to Discussions

- Respond to every student’s introduction post with a personalized response.

- In the discussion prompt at the top of each discussion page, where there are instructions on how to do that discussion, include a comment on how the discussion will be graded, or a comment stating where the discussion grading information can be found in the course.

- You can find more detailed information and explanations for each one of these performance categories in the Instructor Handbook, under Instructor Resources (just scroll down to "Discussion") [http://ccconline.org/node/192](http://ccconline.org/node/192).

- In every instructor-led discussion, do all of the following:
  - In some of your responses to student posts, make comments in which you acknowledge their learning or understanding of the material. This can range from comments which tell the student they are correct, and why, to observations which tell the student they are incorrect or not quite on the right track, etc.
# Quality Assurance Rubric

Instructor Presence & Timeliness

Regular instructor presence and timely responses to students’ questions and remarks are important to the teachable moment.

<table>
<thead>
<tr>
<th>Description</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instructor regularly posts 4-5 days each week; instructor responds to student posts within 48 hours.</td>
<td>Best (B)</td>
</tr>
<tr>
<td>Instructor regularly posts 3 days each week; instructor usually responds to student posts within 48 hours.</td>
<td>Good (G)</td>
</tr>
<tr>
<td>Instructor regularly posts fewer than 3 times per week or all on a single day; instructor response time is regularly longer than 48 hours.</td>
<td>Needs Improvement (N)</td>
</tr>
</tbody>
</table>
**QUALITY ASSURANCE RUBRIC**

<table>
<thead>
<tr>
<th>Interaction Quality</th>
<th>The contributions of all students matter in the class. The instructor’s inclusion both of individuals and of the class helps students benefit and build on the contributions of others.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rating</td>
</tr>
<tr>
<td>Instructor regularly interacts with all students in a class, both on an individual and group basis.</td>
<td>Best (B)</td>
</tr>
<tr>
<td>Instructor does acknowledge and validate posts, but in a less than substantial way, and/or may not consistently include all class participants and their concerns.</td>
<td>Good (G)</td>
</tr>
<tr>
<td>Instructor regularly responds to only a select few individuals; may not answer all student questions and/or responses only affirm that instructor reads student posts.</td>
<td>Needs Improvement (N)</td>
</tr>
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INTERACTION QUALITY

- Instructors may respond to several students with one post. For example, if three students commented about a topic, you may address one post to all three students. Use their names in the Subject line to capture attention. Add a redirecting or clarifying question to keep the discussion moving. (Example from Mary Sokol’s MAT090 class)

Hi, Justin and Jasmine,
Thanks for working together on this problem.
Jasmine, you solved this problem correctly! YES!!! Your steps were very detailed, and thank you for restating the problem. That gets us off to a good start. I made some comments (in blue) in your solution below. Recommendations:

1) Defining your variable simply means to tell us what x and y signify. See Step 2.
2) Remember the check.

Justin, thank you for showing us a check of Jasmine's answers by going to the wording of the original problem and making certain that the values work with the wording. That's the very best way to check applications. Super job!!!

Nice collaboration, you two. I hope that you discovered that "systems of linear equations" often make it easier for us to solve applications. Keep up your good work!

Prof Mary : )
**QUALITY ASSURANCE RUBRIC**

<table>
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<tr>
<th>Engagement/Re-engagement</th>
<th>The classroom provides the opportunity for group construction of knowledge. Instructor engagement encourages student participation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Description</td>
<td>Rating</td>
</tr>
<tr>
<td>Instructor posts regularly re-engage individual learners as well as the entire class through the use of additional questions at the same or higher level.</td>
<td>Best (B)</td>
</tr>
<tr>
<td>Instructor posts regularly re-engage learners through additional questions at the same or higher level.</td>
<td>Good (G)</td>
</tr>
<tr>
<td>Limited or no re-engagement occurs.</td>
<td>Needs Improvement (N)</td>
</tr>
</tbody>
</table>
ENGAGEMENT/ RE-ENGAGEMENT

- Instructors may try a “scaffolding” technique. Start the discussion with a “lower level” type question to begin building the concept and encourage students to construct a base for their knowledge structure. Begin by asking knowledge-based questions, then move to higher-level questioning using application, analysis, evaluation or synthesis type questions.

- Ask questions which re-engage the students (individually, and as a whole class). Thus, when responding to a student, you can incorporate a relevant question about what they said. Example: "Joe, to follow up on this issue, what do you think are some good examples of this concept in everyday life?" Not every one of your posts need to do this, but be sure that several of them do. And, for the whole class, you can make some new posts addressed to the whole class which ask re-engaging questions.
Student-Instructor, Student-Content and Student-Student

- **Student-Instructor**
  - Assignments or project submitted for instructor feedback
  - Frequently-Asked-Questions (FAQ) discussion moderated by the instructor

- **Student-Content**
  - Assigned completion of a workbook or online exercise
  - Learning-how-to-learn activities

- **Student-Student**
  - Small-group projects
  - Group problem-solving assignments
  - Peer critiques
NEW, USED, AND SLIGHTLY USED STRATEGIES

- Use Cool Tools such as EduCreations, Jing, ScribLink, Notability, InkSurvey, graphing calculator apps (http://wcet.wiche.edu/learn/mobile-app)
- Incorporate videos of yourself or other CCCOnline faculty teaching concepts
- Role-play (e.g., student acts as teacher, student explains a concept to a “neighbor”, student is a “math nerd”)
- Sliding point scale based on timeliness or other criteria
- Post questions from homework, practice exams and quizzes to discuss
- Post incorrect solutions and have students “grade” your work and explain why something is a mistake
- Stagger deadlines, or use unusual deadlines
- Interactive activities – students work with and reply to each other instead of instructor (e.g., homemade story problems, math case studies, virtual field trips)
- Group projects
- FAQ discussion – always open
DISCUSSION CHALLENGES

- “Slow” discussions
  - Post interesting websites, or You-Tubes that go along with the unit. Address how the concepts are used in everyday life.
  - Post incorrect problems asking students to find the mistake and work the problem correctly.
  - “Keeping Discussions Rolling”, Friday, Nov. 8th at 1:00 pm, by The QA Team

- Flaming or disrespectful communication
  - Communications which disrupt the learning environment
  - Use of profanity and/or insulting or harassing remarks in email, discussions, chat or telephone communications
  - Unsolicited, bulk or spam emails
  - Consequences
  - Also refer to the CCCOnline Mutual Respect Policy
Sharing experiences and Brainstorming (Participation Invited!)

- What value do you find in discussions?
- What strategies have worked well in your classroom?
- What challenges have you faced? Did you find solutions?
- What goals do you have for your Discussions?
- Is participation a challenge? Any solutions?

- Have you tried something new? How did it work?
- Is there something you want to try?
- What new technologies interest you?
- What else are you thinking about?
RESOURCE CLOSET

- Tools:
  - ScribLink:  [www.scriblink.com](http://www.scriblink.com)
  - EduCreations:  [www.educreations.com](http://www.educreations.com)
  - Jing:  [http://www.techsmith.com/jing.html](http://www.techsmith.com/jing.html)
  - Graphing Calculator Apps:  [http://wcet.wiche.edu/learn/mobile-app](http://wcet.wiche.edu/learn/mobile-app)
  - Skype:  [www.skype.com](http://www.skype.com)
  - Digital Whiteboard Apps (thanks, Nicole Ellison, from Regis!):  [https://www.diigo.com/user/marciszn/whiteboard](https://www.diigo.com/user/marciszn/whiteboard)
**RESOURCE CLOSET, THE SEQUEL**

- Helpful links (thanks again to Nicole from Regis!):
  - Crafting Questions for Online Discussions: [http://ets.tlt.psu.edu/learningdesign/crafting_question](http://ets.tlt.psu.edu/learningdesign/crafting_question)
  - Generating and Facilitating Effective Online Discussions: [http://tep.uoregon.edu/technology/blackboard/docs/discussionboard.pdf](http://tep.uoregon.edu/technology/blackboard/docs/discussionboard.pdf)
  - Reinventing Online Discussions: [http://www.apa.org/monitor/apr00/reinventing.aspx](http://www.apa.org/monitor/apr00/reinventing.aspx)
THANK YOU!

- Join us in the CCCOnline Community (D2L Questions/Teaching Tips) to discuss Discussions further!

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