Information Literacy and Collaborative Response:

Core 1's “Disaster Scenario” Assignment

Tom Hothem

Core 1 is:

a writing-intensive lecture and discussion course that is designed to introduce students to UC Merced's faculty, our research, and the academic fields in which we work.

The course capitalizes on an interdisciplinary approach to explore how different experts, from what have been called "the two cultures" (humanist and scientist), view the world and analyze information.

The intent is to demonstrate, through examples, that complex questions are best understood not from a single, decoupled perspective, but by insights gained from different—even seemingly disparate—approaches.

Core 1 Learning Outcomes (students will be able to):

1. Manage and assess information by refining study skills and cultivating scholarly habits

2. Collaborate in sharing expertise, making connections, and assembling knowledge

3. Demonstrate scholarly processes characteristic of creative/critical problem-solving

4. Critique diverse perspectives from scientific, historical, artistic, and personal standpoints

5. Apply appropriate qualitative and quantitative methods in analyzing information

6. Craft written arguments that draw connections between the arts and sciences

7. Appreciate ethical considerations and decision-making in local and global contexts

8. Elaborate an enhanced sense of educational purpose in a broader intellectual context

Core 1 Learning Outcomes (students will be able to):

1. Manage and assess information by refining study skills and cultivating scholarly habits

2. Collaborate in sharing expertise, making connections, and assembling knowledge

3. Demonstrate scholarly processes characteristic of creative/critical problem-solving

4.Critique diverse perspectives from scientific, historical, artistic, and personal standpoints

5. Apply appropriate qualitative and quantitative methods in analyzing information

6. Craft written arguments that draw connections between the arts and sciences

7. Appreciate ethical considerations and decision-making in local and global contexts

8. Elaborate an enhanced sense of educational purpose in a broader intellectual context

Core 1 Learning Outcomes (students will be able to):

1. Manage and assess information by refining study skills and cultivating scholarly habits

2. Collaborate in sharing expertise, making connections, and assembling knowledge

3. Demonstrate scholarly processes characteristic of creative/critical problem-solving

4. Critique diverse perspectives from scientific, historical, artistic, and personal standpoints

5. Apply appropriate qualitative and quantitative methods in analyzing information

6. Craft written arguments that draw connections between the arts and sciences

7. Appreciate ethical considerations and decision-making in local and global contexts

8. Elaborate an enhanced sense of educational purpose in a broader intellectual context

Psst … Tom, go to the assignment prompt!

¶ Core 1 Quantitative Assignment Rubric

“A” (5.0) > outcomes
“B” (4.0) = outcomes
“C” (3.5) ≤ outcomes
“D/F” (<3.5) < outcomes

CRITERIA

• **ACCURACY:** (Performs proper calculations and provides precise solutions) (5 pts = 20%)

• **METHOD:** (Manages information and demonstrates mathematical logic) (5 pts = 20%)

• **PRESENTATION:** (Utilizes academic conventions of organization, formatting, citation, terminology, and mechanics) (5 pts = 20%)

• **EXPLANATION:** (Demonstrates intellectual process, purpose, and significance of creative and ethical problem solving) (5 pts = 20 %)

• **DISCUSSION**: (Analyzes and synthesizes conclusions, uses adequate evidence, and acknowledges the complexity of the subject) (5 pts = 20%)

¶ Core 1 Rubric for Quantitative #2 Collaborative Documentation

[3 = High; 2 = Average; 1 = Low]

• **COMPLETE/THOROUGH** (all supporting documentation is included with the assignment, and is fully filled out)

• **THOUGHTFUL/REFLECTIVE** (supporting documentation is indicative of depth in consideration)

• **COMMENTARY ON PROCESS** (supporting documentation reflects engagement with the collaborative process of the assignment)

• **CONGRUENCE AMONG MATERIALS** (supporting documentation reflects agreement among group members in describing the process)

¶ Cumulative Student Performance on Assignment

Category	*A.Y. 2010–2011*	*A.Y. 2011-2012*	*+/–*
• Mean Overall Grade:	14.92 / 25.00	18.67 / 25.00	+ 3.75
• Mean Accuracy:	3.06 / 5.00	3.71 / 5.00	+ 0.65
• Mean Method:	2.90 / 5.00	3.77 / 5.00	+ 0.87
• Mean Presentation:	3.34 / 5.00	3.79 / 5.00	+ 0.35
• Mean Explanation:	2.84 / 5.00	3.70 / 5.00	+ 0.86
• Mean Discussion:	2.79 / 5.00	3.71 / 5.00	+ 0.92

¶ Cumulative Student Performance on Collaboration

- **Mean Overall Grade:** **8.13 / 12.00**
- **Mean Completeness/Thoroughness:** **2.12 / 3.00**
- **Mean Thoughtfulness/Reflectiveness:** **1.92 / 3.00**
- **Mean Commentary on Process:** **1.89 / 3.00**
- **Mean Congruence among Materials:** **2.20 / 3.00**

¶ Some Tentative Conclusions

• **The most informed data analyses *aggregate* a body of available data rather than rely on individual, often isolated, data sets.**

(Another way of conceptualizing such aggregative data processing may be in terms of “crowdsourcing,” whereby a diverse sample of contributors helps assemble a more comprehensive data set.)

By working in teams, students can collect, compare, and contrast data on which they base their definitions of the problem and proposals for solving it, and thus correct, calibrate, and/or focus details they often otherwise leave unexamined.

A team might be expected to collect more—and more diverse—data, and also might analyze it collectively, in better context, than an individual working alone.

¶ Some Tentative Conclusions

- **Students working in teams can share their varieties of expertise with information literacy and document design, and can proofread each other's work.**

Insofar as, in a collaborative setting, each team provides its own audience—that is, even as it embodies a collective author, each group also implicitly features a sample of a wider readership—students working in a team can engage with each other's descriptions and improve both formatting and mechanics.

¶ Some Tentative Conclusions

- **The result of collaboration can be better information and better argument.**

Teamwork explicitly allows for attention to and reflection on method, and occasions intra-group commentary on its implications.

Team members implicitly practice explaining and discussing a problem, and coordinate each other's work in addressing it.

In cultivating such discussion, they develop a more informed sense of a given problem, and a more refined means of articulating a solution to a wider audience (for whose range of perspectives they are thus better prepared).

¶ Problems with Assessing Collaboration

• Challenge of documenting/observing such a fluid dynamic as teamwork.

• “Unofficial” or “under the radar” processes of collaboration often go unremarked.

• Teams scored slightly higher on measures of **Completeness/Thoroughness** and **Congruence** than they did on **Thoughtfulness/Reflectiveness** and **Commentary on Process**.