Thursday, February 18, 2010, 11:30-1:00
CELT Brown Bag Presentation

Getting through Student “Bottlenecks” with “Decoding the Disciplines”

Leah Shopkow

Warmup: Think of an assignment you give where significant numbers of students who are doing the work have difficulty or think of an error your students who are doing the work persistently make. Discuss this with your neighbors.

I. Approaches to Understanding “Stuck” Places
   Handout 1: The “Decoding the Disciplines” Cycle
II. Decoding the Disciplines Step 1: Identifying the “Bottleneck”
III. Decoding the Disciplines Step 2: Determining the Steps
    Video: Bottleneck moments
    Handouts 2 & 3: Two rubrics
    Handout 4: Page from “argument” tree
    Question: What steps would your students have to take to negotiate your bottleneck?
IV. Decoding the Disciplines Step 3: Modeling
    Video: Modeling the Creative Process
    Handout 5: “Morning Song” by Sylvia Plath
    Question: How could you model for students how to negotiate your bottleneck?
V. Decoding the Disciplines Step 4: Practice and Feedback
VI. Decoding the Disciplines Step 5: Motivation
    Handout 6: Using Team-Based Learning to Motivate
VII. Decoding the Disciplines Step 6: Evaluation (Assessment)
    Handout 7: Global Assessment--Word Clouds
    Question: What kinds of assessments will show you whether your students have successfully negotiated your bottleneck?
VIII. Decoding the Disciplines Step 7: Sharing (see above!)
    Handout 8: DtD Planning Template
    Handout 9: References

The History Learning Project (Arlene Diaz, Joan Middendorf, David Pace, & Leah Shopkow), from which much of this material is drawn, is supported by grants from the Spencer and Teagle Foundations; it is also supported by the Office of the Vice-Provost for Undergraduate Education, the College of Arts and Sciences, and the History Department at Indiana University.
The “Decoding the Disciplines” Cycle

- What are the steps or operations that a student must have mastered to get past this bottleneck to learning?
- How can I share what I have learned with others?
- How can I show students how to do these operations?
- How can I tell whether students have mastered these operations by the end of the process?
- How can I motivate them to continue through this process?
- How can I give my students an opportunity to practice and get feedback on each of these operations?
### Handout 2

**Biology Lab Report Grading Rubric**

<table>
<thead>
<tr>
<th>Component</th>
<th>Score</th>
<th>Qualities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Background</td>
<td>2</td>
<td>• Identifies objectives of study (what did you want to study?)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Provides rationale for study (why is this research important to do?)</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>• One missing or incomplete item from 2 above</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>• Two missing or incomplete items from 2 above</td>
</tr>
<tr>
<td>Methods</td>
<td>2</td>
<td>• Summarizes protocols used to conduct study</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Reader can picture experimental design based on brief description</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>• One missing or incomplete item from 2 above</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>• Two missing or incomplete items from 2 above</td>
</tr>
<tr>
<td>Results</td>
<td>2</td>
<td>• Summarize major findings of study</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Make connections among various treatments or variables using appropriate connecting words</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>• One missing or incomplete item from 2 above</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>• Two missing or incomplete item from 2 above</td>
</tr>
<tr>
<td>Discussion</td>
<td>2</td>
<td>• Identifies realistic scientific applications for research</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Identifies realistic real-world applications for research</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>• One missing or incomplete item from 2 above</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>• Two missing or incomplete items from 2 above</td>
</tr>
<tr>
<td>General writing</td>
<td>2</td>
<td>• Uses complete sentences</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No citations in abstract</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No spelling errors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• No grammatical errors</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• 150-200 words maximum</td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>• Error in any one item in 2 above</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>• Error in any two items in 2 above</td>
</tr>
</tbody>
</table>

Total score: _______________
Handout 3

Paper Rubric

You are currently researching the topic you are going to write your paper on and you should be asking a research question that calls for analysis and also calls for you to take a position, make a claim, or argue for a particular point of view (these are all different ways of saying the same thing, that your paper needs not to be just a description, but you need to figure out what you think). The three articles you have read should have given you some ideas about some controversies in the area you are researching, and these should have featured in your article synthesis.

I will use the following rubric in grading your essays (which will be graded letter/number, i.e. “A-/92”):

Argument
Goal: The essay has a clear historical argument (not just a description) that is supported with suitable evidence from appropriate sources (primary or secondary) that runs throughout the essay.
Problems:
- There is no clear argument.
- There is no original contribution to the argument: you agree with another scholar and basically say what he or she says, without adding anything to it. Additions may take the form of refining or qualifying the argument or providing additional evidence to illustrate it.
- There is material in the essay that doesn’t relate to the argument.
- The argument is not historical.
- The argument is anachronistic.
- The argument is not well-supported by evidence.
- The evidence undermines the argument.
- Evidence that might not support the argument is ignored.

Counter-argument
Goal: Where other positions might be argued or have been argued by the scholars you’ve read, these are acknowledged in the essay and the essay makes a reasonable attempt to refute these positions.
Problems:
- Contrary arguments are ignored.
- Contrary arguments are acknowledged, but not dealt with.
- The essay does not acknowledge with whose ideas it is engaging.

Evidence
Goal: The argument of the essay is abundantly supported with evidence from primary sources (whether directly from those sources or through secondary sources) and secondary sources. The source of the evidence is always clear, whether through a
mention in the body of the paper or clear citation in the footnotes. Evidence is clearly explained and interpreted.

Problems:
There is not enough evidence.
Evidence is not interpreted, simply presented.
Evidence is misread or misused or misunderstood.
Evidence is taken out of context and so misapplied.
Inappropriate evidence is used.
Evidence is ignored.
The source of evidence is not clear.

Writing
Goal: The essay is clearly written and easy to follow, free from grammatical, spelling, punctuation, and lexical errors. Paragraphs are coherent and well-constructed.

Problems:
There are grammar errors.
There are spelling errors.
There are punctuation errors.
There are lexical errors (word choice).
Paragraphs don’t hang together.
Transitions are awkward, weird, or lacking.
Sentences are choppy.

Citation
Goal: The essay contains proper citation in footnotes following the Chicago manual of style, using full citations and short citations. The citations are to works that the author has actually read himself or herself. Where the author has encountered something in an intermediary work, this is indicated in the footnote.

Problems:
There are no citations.
The form of the citations is not correct.
There are only full citations.
The work cited is one the author hasn’t actually read:
The author has simply borrowed a citation from another source without reading the cited work.
The author has read a passage from another source, but hasn’t indicated this in the footnote.
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Handout 4

Draft Argument Tree (or Map)

1) Evaluating the question. What is the question asking me? Asking questions about the question.
   - Understand the question. Why was it assigned?
   - What is it really asking? Purpose? Broad questions about the question? What are the possible time frames and limits could I use?
   - Geographic coverage? Who is involved?

   Is the thesis given or do I provide it?

   Thesis explains something in response to an implicit or explicit question.

   How do I frame a good, historical question? Does this need a tree?

   What is my driving question?

   Types of questions historians ask on exams or for papers:
   - Statement or quotation: do you agree or disagree?
   - Write a paper on _______ [the English Civil War].
   - Argue whether _______ [American Revolution] is a true _______ [democracy].
   - Pick three examples of _______ [colonization] and compare.
   - How and why _______ [Egyptian burial customs] change over time?
   - Composed long paragraph with multiple questions, question(s), five possible positions, etc.

   What is my question(s)?

   How do these questions relate to my question(s) that interest me?

   What is my “little” question into a “big” one?

   How can I turn a “little” question into a “big” one?

   Do I think I already have an answer? How can I test my answers to see whether it works?

On to step 2
‘Morning Song’ by Sylvia Plath

Love set you going like a fat gold watch.
The midwife slapped your footsoles, and your bald cry
Took its place among the elements.
Our voices echo, magnifying your arrival. New statue
In a drafty museum, your nakedness
Shadows our safety. We stand round blankly as walls.
I’m no more your mother
Than the cloud that distills a mirror to reflect is own slow
Effacement at the wind’s hand.
All night your moth breath
Flickers among the flat pink roses. I wake to listen:
A far sea moves in my ear.
One cry, and I stumble from bed, cow-heavy and floral
In my Victorian nightgown.
Your mouth opens clean as a cat’s. The window square
Whitens and swallows its dull stars. And now you try
Your handful of notes;
The clear vowels rise like balloons.

Team-Based Learning in a History Class: Using TBL to Motivate Disciplinary Thinking

Arlene J. Díaz (Associate Professor of History and Director of Latino Studies), and Joan Middendorf (Associate Director of Campus Instructional Consulting and Adjunct Professor in Higher Education) Indiana University-Bloomington

Background: The course Latin American Colonial History Survey has been part of a 3-year Teagle and Spencer Foundation study to find effective ways to help students construct arguments based on documentary evidence and to express this in writing. In particular, the class focused on helping students analyze primary sources and put them in conversation with other course materials in order to produce a historical argument. Even though the instructor explicitly modeled the expected disciplinary thinking needed to execute these skills to the students, and provided some opportunities to practice, many students were not motivated to bring the several skills together for their essay exams. In the fall of 2009 the class was revamped using Team Based Learning (TBL) (Michaelsen, 2004) to address the motivation problem.

Description: Using the Decoding the Discipline (DtD) Method (Middendorf and Pace, 2004), the instructor had already analyzed major bottlenecks to learning in this course and ways of modeling these, including the weekly learning outcomes. This prior work allowed the seamless transformation of this lecture and active learning class into a TBL class, which in turn helped to solve the motivation problem within the DtD method. In the non-TBL version of the same class, most students consistently went back to factual and descriptive writings rather than come closer to interpretative essays. When they did active learning exercises, they were told the work was good, but there was no explicit rubric for everyone to publicly measure their work against. How did TBL help? First, the individual and group Readiness Assessment Tests were used to motivate students to look for readings’ thesis statement and major points rather than memorization of facts. Students were allowed to bring their reading notes (to promote note-taking) to the quizzes and this encouraged them to focus on understanding the content of the reading. Second, in the eight Application Projects throughout the semester students practiced solving historical problems by extracting and interpreting evidence from documents and by formulating arguments with their teams. The explicit and very public way the Application Projects were presented and evaluated provided immediate, specific feedback about the kind of thinking required. By the time of their take-home essay exams, students had already analyzed much of the materials in groups, and had practiced the interpretative not descriptive work.

Preliminary Results: Two of the four essay exams have been coded based on the course bottlenecks. In a scale from 0 to 4, the level of students’ thinking shown in their essay arguments and source analysis was assessed, assigning a “0” when the execution was wrong or non-existent, all the way to a 4, which denoted a high level of interpretation and synthesis. The level of thinking demonstrated in the thesis statements improved from an average of 1.82 in the first exams to 2.85 in the second exams (out of 4). In terms of the level of thinking when connecting sources, the improvement was remarkable, from a mean of 0.71 in the first exam to 2.79 in the second. All of these means were statistically significant. Compared to last year’s non-TBL class, students were able to move faster to higher levels of interpretation, and more students are enthusiastic on improving their work. Also, improvement seems to be more evident among below average and average students.

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1 This project is being carried out by the History Learning Project (Leah Shopkow, David Pace, Joan Middendorf and Arlene Diaz) at Indiana University-Bloomington. http://www.iub.edu/~hlp/
Global Assessment of a Change in Student Thinking

Has your understanding of history changed this semester?
I used to think...

Now I think...
Decoding the Disciplines Planning Template (Díaz example)

<table>
<thead>
<tr>
<th><strong>H211: Latin American Culture and Civilization I</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Non-content Objectives of the week</strong></td>
</tr>
<tr>
<td><strong>Week 1</strong> Learning about the interpretative nature of the historical discipline and the role of primary sources in history</td>
</tr>
<tr>
<td><strong>Week 2</strong> Learning how to extract information/analyze primary sources and relate it to course readings</td>
</tr>
<tr>
<td><strong>Week 3</strong> <em>Positions themselves as people of the past (Aztec Worldviews)</em> <em>Distance themselves from moral judgment</em></td>
</tr>
<tr>
<td><strong>Week 4</strong> <em>Positions themselves as people from medieval Spain (Mentality of the Reconquista and European Expansionism)</em></td>
</tr>
</tbody>
</table>

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**Handout 9**

**References:**


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Links

Freshman Learning Project  <http://www.indiana.edu/~teaching/communities/flpindex.shtml>
History Learning Project: <http://www.iub.edu/~hlp/>
American Association of Colleges and Universities Value Project
  <http://www.aacu.org/value/index.cfm>