Ferrum College QEP "Critical Thinking for Success"
Critical Thinking Course Mini-grant Final Report Form, Spring 2013

1. Synopsis

a. Purpose and Anticipated Student Learning Gains: This semester, I used a game-based pedagogy called "Reacting to the Past" (hereafter referred to as RttP), which puts students into the role of historical figures and involves them in a class-wide debate. Specifically, I used it in PSC 303 (Political Theory from Socrates to Locke) in place of a traditional PowerPoint-based summative assignment.

I had a few purposes in mind: 1) Students would understand and retain course topics and philosophers in greater detail than previous political theory classes. 2) Students will be able to make and evaluate arguments, as outlined in Ferrum College's QEP. 3) Students would have a common intellectual experience. 4) Students would perform more research than for a typical end project.

As for anticipated student learning gains, (corresponding to the purposes outlined above) I assumed that: 1) Students' test scores would increase (more on this in the hypotheses section below). 2) Students would score at least "emerging" level progress on the college QEP. 3) Students would be more active in this activity than they typically are watching each other's presentations. 4) Students would utilize more primary and secondary sources than usual.

b. Brief Summary of Method: I had students take the roles of course political philosophers for the purpose of debating core course questions, such as, "Should church and state be separate?", "What are humans like on a fundamental level?" and other questions. Each student was assigned two roles over the span of two games. In one game, half of the class would be political philosophers from the course and the other half would play the part of an Indeterminate (a member of a jury weighing the arguments the philosophers made). The next week, the two halves would switch, so every student played exactly one philosopher and one Indeterminate.

I based game play off of my previous experience with RttP as well as other game-based pedagogies, such as the Model UN. Each game session included some "out of session" time for the philosophers to make their case to individual Indeterminates, as well as a formalized "in session" time for the debate to proceed round-robin style. Additionally, on Day 1 of each game, the philosophers took a short quiz which wasn't for class credit, but determined which philosophers got to use their powers or super-powers. Powers ranged from being able to silence another philosopher for 5 minutes to the ability to cast a deciding vote during the Indeterminate deliberation. I also factored in one random die roll each day, which led to a new situation that would affect the philosophers' arguments. Finally, Day 2 ended with the Indeterminates deliberating over the philosophers' arguments and selecting a winner. The winner received 2 points of course extra credit. However, the student grades for the project were not tied to winning, but rather their performance on game day and written assignments. One would expect that winning the game and doing well on the project would be correlated, but one of the two winners received a C for the project, despite winning the game.

Finally, students were expected to submit two writing assignments for the project. The first one was in advance of the Game Days – a "platform" written from the perspective of their philosopher and making an argument for their positions. The second was due after the game, a "reflection paper" from the

perspective of their Indeterminate; the purpose of this paper was to evaluate the arguments of the philosophers.

c. Hypotheses/Assumptions Inherent in Method:
H1: Students will score higher on the final exam than on the midterm (RttP took place entirely after the midterm).
H2: Students would do better on final exam questions featuring "their" philosopher than on questions that don't feature him.
H3: Student final exam scores would be higher than previous political theory classes that did not do RttP.
H4: Students will be able to effectively make arguments in their written work, achieving at least the "emerging" level.
H5: Students will be able to effectively evaluate arguments in their written work, achieving at least the "emerging" level.
H6: Students would perceive RttP positively in terms of workload, retention and enjoyment.

2. Implementation Details

a. Instructor Preparation Requirements: In order to prepare for this, I attended a RttP workshop in January with Profs. Howell and Thomas. The conference allowed me to experience a game and receive various game materials. Despite having a few published modules ready to go, I chose to use my experience at the conference to design my own game. A lot of the published RttP materials are more suitable for history classes, because they typically focus on a specific historical event. Since my course focused on a span of political theory lasting two millennia, I opted instead for an ahistorical story with a bit of a science fiction twist. In short, I needed a prompt to get Plato and Marx together in the same room to have a debate.

Over the course of the semester, I designed two games, based off of the RttP methodology. This involved getting in contact with the RttP community online and through Facebook and asking them design questions throughout the semester. By the end of this process, I had produced "role sheets" for each of the philosophers in the two games, which gave a brief biography as well as a list of goals which would gain/lose points for the philosopher during the course of the debate. I also prepared a role sheet for the Indeterminates so that they would understand the backstory and the questions being debated. After that, I made a loose outline of what would occur on each game day, but largely left the administration of the game, itself, to pre-selected Indeterminates.

b. Classroom Activities: On game days, students would come prepared depending on their role. The philosophers were expected to have thoroughly researched their own philosopher as well as the others that they were debating. To facilitate this, all platforms were submitted to an ANGEL dropbox that was listed as "public", so everyone had access to everyone else's views in advance. Philosophers were expected to stay in character, come prepared and be active in advancing their case.

The Indeterminates were expected to know their own characters and take good notes on what was said during game days, because this would be used in their reflection papers.

c. Out of Class Activities and Expectations for Students: Students were expected to research their philosophers before the game began and also make adjustments between game sessions, depending on the result of the debate and dice rolls. Students were free to lobby Indeterminates between sessions. Finally, students produced two written assignments – a platform before the game and a reflection paper afterwards.

3. Assessment of Student Learning Gains

a. Method(s) of Assessment:

H1: Comparisons of mean scores from midterm to final exam for PSC 303 – Spring 2013
H2: Comparisons of mean scores on questions featuring a student's philosopher to mean scores on questions that don't feature their philosopher on this semester's final exam.
H3: Comparisons of mean final exam scores from PSC 303 – Sp13 to four previous political theory classes.
H4: Use of Ferrum's critical thinking rubric as applied to the "platform" paper.
H5: Use of Ferrum's critical thinking rubric as applied to the "reflection" paper
H6: Use of a student survey given in the last week of class (after the final game session).

b. Results of Assessment:

H1: The average final exam score this semester was a 78.8% compared to a midterm score of 75.6%.
H2: Students received an average of 80.1% on questions involving their own philosopher, compared to the overall class average of 75.1% for questions not featuring their philosopher.
H3: The final exam average of 78.8% can also be compared to averages of 84.45%, 72.73%, 76.4% and 73.55% in the last four offerings of political theory (I'm including final exam scores from PSC 304 because the methodology, focus and student demographics are the same).
H4: The class averaged 15.6 on a 20 point scale for making arguments.
H5: The class averaged 14.63 on a 20 point scale for evaluating arguments.
H6: Students gave the following averages to the survey questions:

a. On a scale of 1 – 10, with 1 meaning much less work, 5 meaning equal work and 10 meaning much more work, what was the <u>workload</u> of RttP in comparison to a standard final presentation? This class averaged **5.875** for this question.
b. On a scale of 1 – 10, with 1 meaning much less retention, 5 meaning equal retention and 10 meaning much more retention, do you think that RttP helped you to <u>retain course material</u> in comparison to a standard final presentation? This class averaged **7.75** for this question.
c. On a scale of 1 – 10, with 1 meaning much less enjoyment, 5 meaning equal enjoyment and 10 meaning much more enjoyment, did you <u>enjoy</u> RttP in comparison to a standard final presentation? This class averaged **8.3125** for this question.

c. Lessons Learned from Assessment: Overall, I would consider RttP to be successful in regards to my stated purposes.

Within this class, RttP seemed to be successful – the exam average improved 3% from midterm (pre-RttP) to final (post-RttP). Likewise, students scored 5% better on questions featuring their own philosophers. If a student was clever enough to invoke their philosopher in both exam questions (the questions were designed so that any student could do this, if desired), then they typically scored an entire grade higher than someone not answering any questions about their own philosopher. Finally, the student survey was exactly what I hoped for – students perceived RttP as being slightly more work, leading to much more retention and a lot more fun than a traditional PowerPoint-based project.

Between classes, RttP was also a success. Other than one very high scoring class, the final exam scores for this class beat out 3 out of my last 4 political theory classes. Even taking that high scoring class into account, the RttP class beat the previous 4 classes average by almost 2%.

The Critical Thinking results were close to my minimum expectations, but I think that they could be better. In short, this is a challenging 300 level class and typically the demographics consist of juniors and seniors. Even before the college QEP was implemented, this class has always been about critical thinking and the higher order thinking skills of Bloom's taxonomy. So although the class performed admirably, I think that they can do much better than "emerging". Not surprisingly, many of them were better at making arguments than evaluating them, I think in part because students write so many position papers that they make arguments more or less intuitively (for better or worse). But evaluating arguments involves actually reflecting upon why an argument works or doesn't and I think most students aren't used to bringing that level of cognition to the task.

4. Description of Technology or Other Specialized Materials Required

RttP doesn't need any specialized materials, although currently about nine books are already in print. The RttP library also has a larger number of games under review that are available in pdf format for no charge. During my game days, I used an in-class projector to tally up class scores. But otherwise, I developed all of my own materials and didn't need any major technology.

5. Availability of Necessary Equipment, Training, or Resources

I don't think that one needs to attend a RttP conference to be able to use the method, but it definitely helps. I gained the valuable perspective of understanding how my students felt on game day and I think it not only helped me prepare them for the game, but helped me write a quality game in the first place.

6. Bibliography

Carnes, Mark. "Reacting to the Past Pedagogical Introduction" (pdf)
http://reacting.barnard.edu/sites/default/files/inline/reacting_pedagogical_introduction-9-20-2010.pdf