A Living Laboratory: Activity Template

Activity Title:	"Is Algebra Necessary?", "The Push for Merit Pay", "Ability Grouping & Tracking", "The Same-Sex Classroom"
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Activity Description:

Students were required to write one persuasive paper per week, on a variety of topics related to education and pedagogy in general, and at times math education in particular. This assignment specifically addresses the concerns that consistently appear every so often, regarding the "usefulness" of our math curriculum. Students are assigned an article to read, then write a persuasive paper (with academic sources to validate their position), either siding with the original author or taking an opposing position instead.

Learning Goals:

Students ought to consider the common critiques of generally accepted math curriculum, and be able to address these concerns in their classrooms with their own style of pedagogy. In particular, the starting point for this assignment is an article addressing the relevance of math concepts, and their application to the "real world". As future teachers, my students must be aware of these concerns and how to adapt their teaching styles to address these potential shortcomings.

Timing:

Students are given the reading assignment one week prior to our in-class discussion. We then spend one class period talking about the article and discussing the concerns that it raises. Students are then given the persuasive paper writing assignment at the end of the discussion. They must find academic sources (not Wikipedia or Ask.com) to bolster their views, and they are also required to include one opposing source as well – in order to avoid being a "propaganda" paper.

Logistics:

Students are given the reading in advance, they then participate in a discussion section with myself and their peers before finally setting forth to write their response to the reading. In this way, students are exposed to a variety of views before they begin writing, instead of simply writing about their initial reaction to the reading.

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General Education SLOs:

Breadth of knowledge *– understand and appreciate the relationship of mathematics to professional and applied studies.*
Depth of knowledge *– digging into academic research to validate their points of view, while simultaneously being forced to look into the academic research opposing their view as well.*
Communication skills *– communicate individually and as a group, both written and orally.*
Inquiry and Analytical skills *– again, by digging into academic research on both sides of the issue and evaluating their respective strengths.*
Information literacy *– determining the value of a source as academic or opinion-based, gathering information from a variety of sources.*
Professional Development *– inquiring into a provocative issue relevant to their future careers, demonstrating intellectual agility and personal responsibility.*
Civic engagement *– Apply knowledge and analyze a political and historical issue within math pedagogy and its aims.*
Multicultural orientation *– discern multiple perspectives and demonstrate the capacity to deal with a diverse society.*

High Impact Educational Practices:

Common intellectual experiences
Writing-intensive courses
Open Digital Pedagogy

Assessment:

Students are provided with a very clear and specific rubric, breaking down the components of their writing assignment. For "acceptable" credit (C), students were required to include a minimum of 3 academic sources, properly cited – at least one of which must support the opposing viewpoint in their persuasive paper. The papers' lengths were also a graded component, a full two pages (at 12 pt Times New Roman, 1.5 spacing) extending onto a third page was required for an "acceptable" rating. Also, students' participation on OpenLab was evaluated, with 2 well thought out comments (e.g., not just "Nice paper.") for an "acceptable" score. The students' overall score for each written assignment was determined by averaging the range of Unacceptable – Exceptional in each component: Content, Citations, Length, and Comments.

Reflection:

I found that by refining my grading rubric and providing it in advance to students, I received much higher quality assignments. They were much more enjoyable to evaluate, and the process by which I assigned grades was much more transparent. Students responded in a much more positive fashion, and their work was generally of higher quality. Their work reflected a deeper consideration of the issues related to the assignment, and I feel like they were not only challenged, but they came away from the assignments with a deeper appreciation for both sides of each issue.

Additional Information:

http://openlab.citytech.cuny.edu/parkermedu1010fa2013/assignments/ - This link shows the list of writing assignments

http://openlab.citytech.cuny.edu/parkermedu1010fa2013/ - the main course site has sample student work, student comments, the course syllabus with rubric, and other supporting documentation.