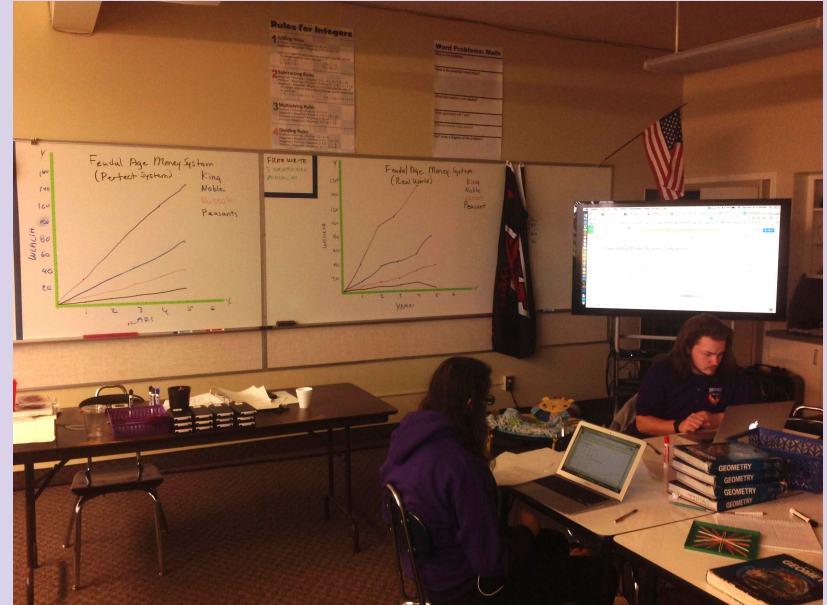


Applied Mathematics in Economic Models & Comparative Political Economies

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Mt. Harrison High School

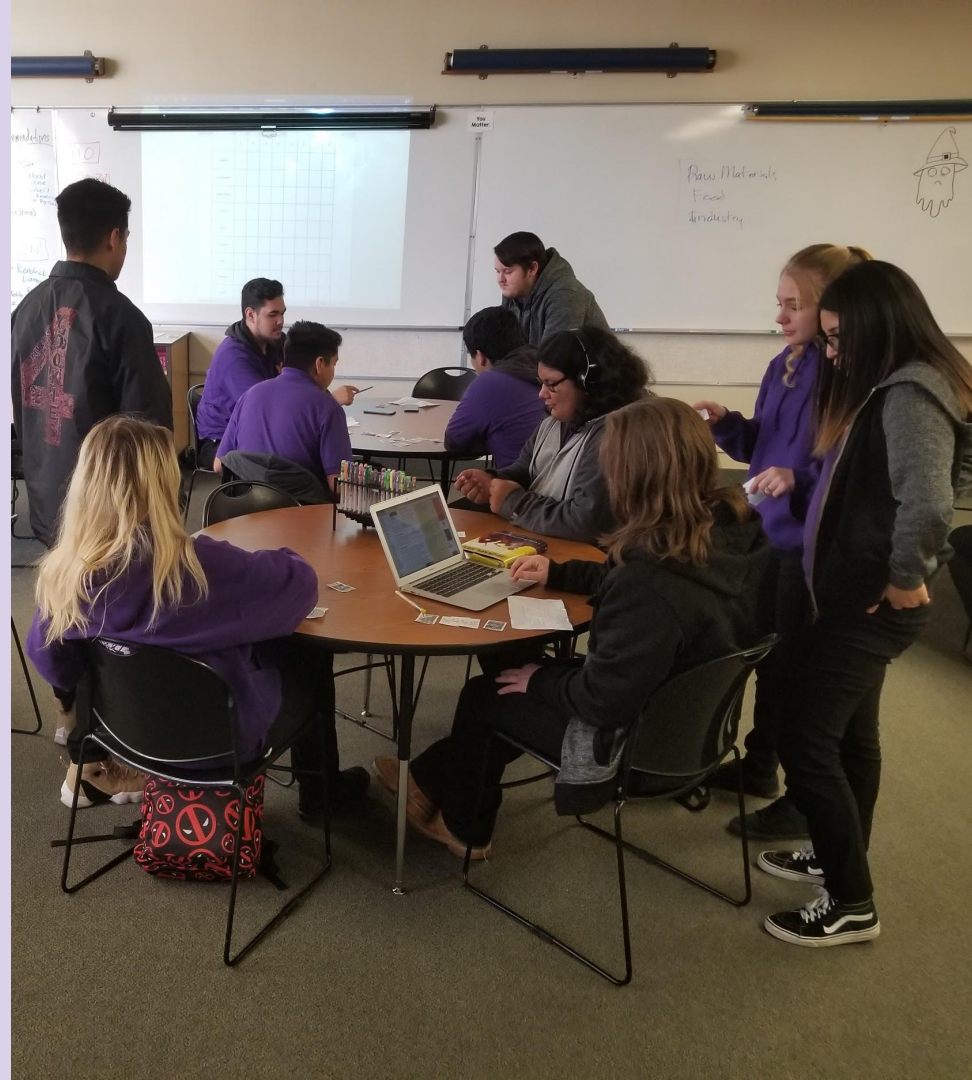
The Goal:

To provide the students of Mt. Harrison an engaging cross curricular class that combined World History and Algebra II by introducing students to various economic ideologies and helping them apply the skills learned in Algebra II to better understand the economic models and their relevance in the real world.



The Method:

1. Divide the class into two smaller, base groups (A's & B's) that rotate between classes and come together every Friday.
2. Use CPM as the base math curriculum.
3. Use collegiate level reading material for historic sources.
4. Find engaging ways to aid students in seeking connections between math and history through games and discussion.
5. Have students analyze the idealized and realistic applications of these models and ideologies and apply the skills learned by creating their own economic models.



Teaching Strategies

- Highly Interactive.
- Group work and discussion based learning.
- Games.
- Interactive Research.

Math Curriculum

- Integrated III Book.
- Sample Chapter used.
 - **Chapter 1:** Investigations and Functions
 - **Chapter 3:** Solving and Inequalities
 - **Chapter 4:** Normal Distributions and Geometric Modeling
 - **Chapter 8:** Polynomials

Historical Reading

- John Stuart Mill- *The Principles of Political Economy*
- Thomas Mun- *England's Treasure by Foreign Trade*
- Adam Smith- *Wealth of Nations*
- David Ricardo- "On Foreign Trade"
- Milton Friedman- *Capitalism & Freedom*
- Karl Marx- *Wage, Labour, and Capital & Manifesto of the Communist Party*
- John Maynard Keynes- "The End of Laissez Faire"
- Albert Einstein- Why Socialism?
- Other supplementary readings

Dewhurst, Foote, Silguero, Stelly

“Our perfect system is run by a bartering system. People are self-sufficient and make what they need. If they ever can't make what they need, they can trade for it. If they can't trade for it, they work for what they need. The people are allowed to do what they please as long as it doesn't harm, inflict damage, or cause negligence to others and their property. All products that can't be reused are made to be biodegradable, and have no long lasting effects.”

Juarez, Lang, Larios, Rosales

“This economic system focuses on bettering the economy by starting with the people. It provides an equal opportunity for the people to succeed while having freedom to do as they wish. They are free to choose their life. There is medium aid for the less fortunate and the government regulates taxes, economy, and trade. Lower taxes for low/middle classes and higher taxes for the upper classes to support the less fortunate. Our economic system is the system of the future.”

Student Perception

“I liked that we covered multiple subjects (math and history).”

“I liked that we covered the background of a lot of material.”

“I liked that there was a lot of one on one. If you needed help there was always help, we had partners and worked in teams.”

“I liked pretty much everything, but I really enjoyed how the two subjects related.”

Reflection

Mathematics: Focus more on the statistical analysis and data collection.
Formed more as a senior level stats course.

History: Taper down the content more and find reading closer to
the student's grade level. More time would have been
very valuable.

Classes geared towards appropriate student capabilities (ie// honors & remedial
classes).

Future Goals

- Create less rigorous classes that are better tailored to our overall student population.
- Create similar classes for additional content areas.
- Use this method to provide a truly alternative experience to our alternative students.