Teaching Economic Disciplinary Understanding in Secondary Grades as Democratic Citizenship Preparation—Benefits, Challenges, and Best-Practices

JET SET
August 3, 2024
9:00–10:15
Introduction

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Virginia Tech Center for Economic Education
Virginia Council on Economic Education
Council on Economic Education
U.S. Economic Empowerment Project
NAEE National Economics Pedagogy Scholar
Session Objectives

Discuss key findings of a research-based article grounded in decades of economic education literature on how secondary teachers use economic concepts, principles and reasoning skills and tools to prepare students for democratic citizenship

- Including the instructional benefits, challenges, and best-practices for integrating greater disciplinary understanding in economics across secondary grades and subjects
3 Economic Reasoning Skills (Ayers, 2019)

Student Learning Outcomes
1) sharpening critical thinking and critical literacy skills
2) entertaining multiple perspectives
3) gaining a deeper, nuanced understanding of subject-specific content
4) making students’ thinking explicit for assessment purposes
5) achieving a inter/multidisciplinary understanding of current events
6) using evidence to draw conclusions and make generalizations
7) articulating and defending positions using content vocabulary
8) laying the groundwork for authentic discussions and civil debates
9) casting informed votes
10) analyzing and synthesizing primary and secondary sources
11) comparing and contrasting historical, cultural, and political perspectives
12) explaining cause-and-effect relationships
13) practicing citizenship skills such as collaborating, compromising, and reaching consensus
14) thinking like an economist for authentic disciplinary learning (like historical thinking)
15) making more productive and prosperous workplace and everyday life decisions
3 Economic Reasoning Tools
Teaching Controversial Issues & Civil Dialogue (references in notes section)
Controversial Issues & Civil Dialogue

Challenges
- US is Politically Polarized
- Media Echo Chambers
- Youth Impact

Best Practices
- Carefully Align Difficult Topics with Subject Area Learning Goals
- Co-Create and Post Clear Ground Rules
- Prepare “Intervention” Activities In Advance
Minimum Wage
+
Scaffolded Economics
Instructional Strategy

CONTENT + PEDAGOGY
Critical Literacy & Background Knowledge

https://www.usnews.com/cartoons
https://www.dol.gov/agencies/whd/minimum-wage/state
Many people earning minimum wage are not a family’s primary source of income
“Minimum wage in America: how many people are earning $7.25 an hour?” USA Facts March 28, 2023
https://usafacts.org/articles/minimum-wage-america-how-many-people-are-earning-7-25-hour/

Increases costs for a company with no corresponding increase in productivity
“Should the Federal Minimum Wage Be Increased?” ProCon.org, January 12, 2023
https://minimum-wage.procon.org/

History shows that minimum wage increases result in reductions in hours and jobs
Stokes, “Fed researchers: $15 minimum wage in Minneapolis and St. Paul boosted pay – but cost jobs” MinnPost, May 9, 2023

Increases the price of consumer goods as businesses pass along additional costs
“Should the Federal Minimum Wage Be Increased?” ProCon.org, January 12, 2023
https://minimum-wage.procon.org/

Price floors disrupt markets (supply and demand), resulting in inefficiencies
Bourne, “The Case Against a $15 Federal Minimum Wage: Q&A” Cato Institute, February 25, 2021
$15 Minimum Wage BENEFITS

Provides a “living wage” for families and reduces poverty
Leonhardt, “How raising minimum wage to $15 per hour could affect workers and small businesses”
CNBC.com, February 24, 2021

Reduces government welfare spending
Buchwald, “A $15 minimum wage could cut government spending on welfare programs by up to $30 billion, study finds” MarketWatch, February 2, 2021

Increases consumer spending and grows the economy
“Should the Federal Minimum Wage Be Increased?” ProCon.org, January 12, 2023
https://minimum-wage.procon.org/

Incentivizes more people to enter the workforce

Reduces income inequality
Maverick, “What Are the Pros and Cons of Raising the Minimum Wage” Investopedia, August 26, 2023
**Tool #1 Cost-Benefit Analysis Chart**

**CHOICE:** Raise the minimum wage to $15

<table>
<thead>
<tr>
<th>COSTS  (disadvantages/given up)</th>
<th>1-5</th>
<th>BENEFITS  (advantages/gained)</th>
<th>1-5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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</tr>
<tr>
<td><strong>Totals</strong></td>
<td></td>
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</tr>
</tbody>
</table>

**DECISION:**

**OPPORTUNITY COST:**

**Content Knowledge Research**

**Minimum Wage**
- Many people earning minimum wage are not a family's primary source of income.
- Increases costs for a company with no corresponding increase in productivity.
- History shows that minimum wage increases result in reductions in hours and jobs.
- Increases the price of consumer goods as businesses pass along additional costs.
- Price floors disrupt markets (supply and demand), resulting in inefficiencies.

- Provides a "living wage" for families and reduces poverty.
- Reduces government welfare spending.
- Increases consumer spending and grows the economy.
- Incentivizes more people to enter the workforce.
- Reduces income inequality.
Tool #1: Cost-Benefit Analysis Applications

<table>
<thead>
<tr>
<th>SUBJECTS</th>
<th>CONTENT EXAMPLES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marketing</td>
<td>use Facebook to promote products</td>
</tr>
<tr>
<td>Agriculture</td>
<td>use hydroponic farming for fresh entrees</td>
</tr>
<tr>
<td>Business</td>
<td>use Microsoft Access to manage information</td>
</tr>
<tr>
<td>U.S. History</td>
<td>start the American Revolutionary War</td>
</tr>
<tr>
<td>Geography</td>
<td>move to Alaska for colder climate</td>
</tr>
<tr>
<td>Civics</td>
<td>vote for Trump in November</td>
</tr>
<tr>
<td>Government</td>
<td>advocate for 2nd amendment</td>
</tr>
<tr>
<td>English</td>
<td>decision made by novel’s main character</td>
</tr>
<tr>
<td>Math</td>
<td>use a calculator to solve a word problem</td>
</tr>
<tr>
<td>Science</td>
<td>use windmills as renewable energy source</td>
</tr>
</tbody>
</table>
### Tool #2 PACED Decision-Making Model

**1. Question/Problem:** What should be done with minimum wage (assume current wage is $10)?

**2. Alternatives**

<table>
<thead>
<tr>
<th>3. Criteria</th>
<th>Help Employees</th>
<th>Help Employers</th>
<th>Incentivize Higher Ed</th>
<th>Reduce Unemployment</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce to $7.25</td>
<td>70</td>
<td>15</td>
<td>5</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Raise to $15.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Raise to $50.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$2.50 + Tips</td>
<td></td>
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</tr>
</tbody>
</table>

**4. Evaluate the Alternatives**

3 = alternative meets criteria very well  
2 = alternative meets criteria satisfactorily  
1 = alternative does not meet criteria satisfactorily

**5. Decision** (highest scoring alternative): __________________________
## PACED Decision-Making Applications

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<td>Marketing</td>
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<td>Agriculture</td>
<td>how to obtain vegetable supply for fresh menu options</td>
</tr>
<tr>
<td>Business</td>
<td>which information management software to use</td>
</tr>
<tr>
<td>U.S. History</td>
<td>how to gain independence from Great Britain</td>
</tr>
<tr>
<td>Geography</td>
<td>where to move for cold weather climate</td>
</tr>
<tr>
<td>Civics</td>
<td>who to vote for in November</td>
</tr>
<tr>
<td>Government</td>
<td>changes to the 2nd amendment</td>
</tr>
<tr>
<td>English</td>
<td>other decisions the novel’s main character could have made</td>
</tr>
<tr>
<td>Math</td>
<td>other ways to answer a word problem</td>
</tr>
<tr>
<td>Science</td>
<td>other types of renewable, clean energy</td>
</tr>
</tbody>
</table>
Tool #3 Economic Way of Thinking 6 Principles

1) People choose.
2) People’s choices involve costs.
3) People respond to incentives in predictable ways.
4) People create rules and economic systems that influence individual choices and incentives.
5) People gain when they trade voluntarily.
6) People’s choices have consequences that lie in the future.
### Tool #3 Economic Way of Thinking 6 Principles

#### Developing Informed Economic Arguments

**Using the Economic Way of Thinking 6 Principles**

**Activity Sheet**

<table>
<thead>
<tr>
<th>Debate/Essay Topic</th>
<th>Debate/Essay Position</th>
<th>FOR or AGAINST (circle one)</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Economic Way of Thinking Principles</th>
<th>Talking Points + Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Scarcity forces people to make choices. scarcity, limited resources, unlimited wants, choices available, benefits</td>
<td></td>
</tr>
<tr>
<td>2) Every choice has an opportunity cost. things given up and disadvantages (costs) <em>most important</em> thing given up (opportunity cost)</td>
<td></td>
</tr>
<tr>
<td>3) Incentives influence choices. positive incentives (rewards), negative incentives (penalties), behaviors, motivation</td>
<td></td>
</tr>
<tr>
<td>4) Economic systems influence individual choices. written and unwritten rules/laws market, command, traditional, mixed economies <em>market economy</em> = economic freedom as producers and consumers, competition, private property rights, profit</td>
<td></td>
</tr>
</tbody>
</table>

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### Developing Informed Economic Opinions

Using the Economic Way of Thinking 6 Principles

**Writing Prompts**

<table>
<thead>
<tr>
<th>Topic</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Group 1</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Group 2</th>
</tr>
</thead>
</table>

1. **People choose.**
   - Group 1 willingly choose ____________________________
   - Group 2 willingly choose ____________________________

2. **People’s choices incur costs.**
   - Group 1 forego the opportunity to ___________________
   - Group 2 forego the opportunity to ___________________

3. **People respond to incentives in predictable ways.**
   - Group 1’s incentives include ________________________
   - Group 2’s incentives include ________________________

4. **Economic systems influence incentives and choices.**
   - Group 1 is influenced by the market economy characteristic of ______ because ______
   - Group 2 is influenced by the market economy characteristic of ______ because ______

5. **Voluntary trade creates wealth.**
   - When Group 1 exchanges ______ for ______, they gain by ______.
   - When Group 2 exchanges ______ for ______, they gain by ______.

**Topic = Raise MW to $15**
- **Group 1 = Employees**
- **Group 2 = Employers**
Essay & Debate Assessments

Tool #1 Cost-Benefit Analysis Chart

**CHOICE:** Raise the minimum wage to $15

1. **COSTS** (disadvantages/given up) 1-5
2. **BENEFITS** (advantages/gained) 1-5

<table>
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<th>Cost</th>
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**DECISION:**

**OPPORTUNITY COST:**

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Tool #2 PACED Decision-Making Model

1. **Question/Problem:** What should be done with minimum wage (assume current wage is $10)?

2. **Alternatives:**
   - Reduce to $7.25
   - Help Employees
   - Help Employers
   - Incentivize Higher Ed
   - Reduce Unemployment

3. **Criteria:**
   - Help Employees
   - Help Employers
   - Incentivize Higher Ed
   - Reduce Unemployment

4. **Evaluate the Alternatives:**
   - 1 = alternative does not meet criteria satisfactorily
   - 2 = alternative meets criteria satisfactorily
   - 3 = alternative meets criteria very well

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Informed Voting

1) State **FOR** or **AGAINST** raising the minimum wage to $15/hour.

2) Share arguments through the lens of Economic Reasoning Tools.

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3) People choose.
4) People’s choices have consequences that lie in the future.
5) People create rules and economic systems that influence individual choices and incentives.
6) People gain when they trade voluntarily.
Student Learning Outcomes

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3 Economic Reasoning Skills (Ayers, 2019)
THANK YOU!
Cheryl Ayers
cheryl42@vt.edu