CLASSROOM DEBATES: A TOOL TO ENHANCE CRITICAL THINKING

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Background
According to Quitadamo et al (2011) critical thinking is an important skill that every college bound student will need to develop. Instructors need to find ways to enhance students’ critical thinking skills especially in the science classroom. This study was conducted at Florida SouthWestern State College (FSW) utilizing the Cornerstone Experience Course. The Cornerstone Experience course main purpose is to increase the retention rates of students and to provide them with success strategies to complete their educational goal. Since critical thinking is an outcome of this course, the purpose of this action research is to see the contributions, if any, will using debates add to students’ learning experience and to the overall critical thinking experience in the course.

Focus Questions:
1. What is the effect of debating on students’ critical thinking disposition?
   - Pre-Post test of the California Critical Thinking Disposition Inventory (CCTDI)
   - Teacher observation
   - Student Interviews

2. What is the impact of utilizing specific instruction on critical thinking disposition?
   - The Student Evaluation of Instruction Survey
   - Teacher observation
   - Student Interviews

3. Was there an improvement in the students’ perceptions of their critical thinking perceptions?
   - Pre-Post test of the California Critical Thinking Disposition Inventory (CCTDI)
   - Analysis of Teacher observation
   - Self-Assessment student Survey

Treatment
The participants will be:
1. pre-test using CCTDI
2. Instructed in Critical Thinking
3. Complete a case study utilizing the Elements of Thought
4. Instructed on debating
5. Perform two debates
6. Perform a debate analysis after the first debate

Demographics
N= 23 registered members
Ages 18-23 years old. The group consisted Males = 65 % vs. Females = 35%
Full-time = 68% Part-time = 32%
Ethnicities
White = 56 %, Hispanic = 35 %, and African American = 9 %American.
Employment Status
Full-Time = 32%
Part-time= 53%

Results
1. Significant improvements in open-mindedness, inquisitiveness, analytical and systematic thinking, and confidence of reasoning.
2. 62% of students reported critical thinking as the greatest skill learned in the class.
3. Overall, students’ perception improved with 85% strongly agreed and 15% agreed.
4. Students’ open-mindedness increase due to arguing opposite view point. Student began to accept alternative views and arguments.

Survey Question (n=13)
<table>
<thead>
<tr>
<th>Survey Question</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Strongly Disagree</th>
<th>Disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall, Debating helped me increase my critical thinking skills and helped me understand all sides of the argument.</td>
<td>94.62%</td>
<td>15.38%</td>
<td>0</td>
<td>0</td>
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</tbody>
</table>

Data Collection and Analysis

<table>
<thead>
<tr>
<th>Focus Questions</th>
<th>Data Source 1</th>
<th>Data Source 2</th>
<th>Data Source 3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sub question 1</td>
<td>Pre-Post test of the California Critical Thinking Disposition Inventory (CCTDI)</td>
<td>Teacher observation 1</td>
<td>Student Interviews</td>
</tr>
<tr>
<td>Sub question 2</td>
<td>Pre-Post test of the Student Evaluation of Instruction Survey</td>
<td>Teacher observation 2</td>
<td>Student Interviews</td>
</tr>
<tr>
<td>Sub question 3</td>
<td>Pre-Post test of the California Critical Thinking Disposition Inventory (CCTDI)</td>
<td>Analysis of Teacher observation 1 &amp; 2</td>
<td>Self-Assessment student Survey</td>
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</tbody>
</table>

Elements of thought

CCTDI Results

Student Evaluation of Instruction

<table>
<thead>
<tr>
<th>Question</th>
<th>Critical thinking</th>
<th>Peer interaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>This class (n=10)</td>
<td>62.5</td>
<td>37.5</td>
</tr>
<tr>
<td>Average (n= 47)</td>
<td>52.86</td>
<td>15.48</td>
</tr>
</tbody>
</table>

The greatest benefit of taking this course

Survey Question

CCTDI Results

Student Evaluation of Instruction

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