Supplemental Materials

for

Deciphering Primary and Popular Literature: An Interactive Approach for Promoting Students’ Development of Scientific, Digital, and Information Literacy in Post-Secondary Contexts

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Appendix 1: Potential lesson topics and related resources.

Designer Babies


Genetically Modified Foods


Genetic Testing and Insurance.


Human Population Control


Biofuels


Fracking


http://www.huffingtonpost.com/michaelgreen/the-fracking-air_b_6065318.html


Medical Marijuana


Appendix 2: Potential small-group discussion prompts (Lesson #1).

1. To what extent do you believe this article is a valid and reliable source of scientific information? Why?

2. What types of evidence would you gather to allow you to find support for or reject the claims made in the article? Briefly compare and contrast these sources of evidence in terms of their benefits and limitations.

3. Why do you believe this topic continues to be controversial in today’s society?
### Appendix 3: Sample matrix for comparing popular and primary sources.

<table>
<thead>
<tr>
<th>Strengths of source</th>
<th>Peer-Reviewed Review Article</th>
<th>Peer-Reviewed Research Article</th>
<th>Popular Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limitations of source</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>For what purposes might you utilize this source?</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Appendix 4: Sample public service announcement and evaluation rubric.

Figure S1. (Top) Sample interview questions generated through SurveyMonkey® for collecting PSA data; (Bottom) Sample blog created to present findings obtained as a result of the PSA assignment.
Table S1. Sample rubric for evaluating students’ public service announcement submissions.

<table>
<thead>
<tr>
<th></th>
<th>Exceeds Expectations (5 pts.)</th>
<th>Meets Expectations (2 pts.)</th>
<th>Below Expectations (0 pts.)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Problem Statement</strong></td>
<td>Controversial topic/issue to be considered critically is stated clearly and described comprehensively, delivering all relevant information necessary for full understanding.</td>
<td>Controversial topic/issue to be considered critically is stated, but description is incomplete or it is somewhat unclear as to what the goals of the project are.</td>
<td>No problem statement is present.</td>
</tr>
<tr>
<td><strong>Survey and/or Interview Development</strong></td>
<td>All elements of the methodology are skillfully developed and appropriate for the PSA assignment.</td>
<td>Critical elements of the methodology are missing, incorrectly developed, or unfocused.</td>
<td>Survey/interview design demonstrates a clear misunderstanding of the methodology.</td>
</tr>
<tr>
<td><strong>Quantitative Presentation of Findings</strong></td>
<td>Provides accurate explanations of information presented in mathematical forms. Makes appropriate inferences based on that information.</td>
<td>Provides somewhat accurate explanations of information presented in mathematical forms, but occasionally misinterprets data.</td>
<td>PSA does not contain data collected through survey and/or interview methods or incorrect interpretation of findings.</td>
</tr>
<tr>
<td><strong>Sources and Evidence</strong></td>
<td>Demonstrates skillful use of high-quality, credible, relevant sources to develop ideas that are appropriate for the PSA assignment.</td>
<td>Demonstrates an attempt to use credible and/or relevant sources to support ideas that are appropriate for the PSA assignment.</td>
<td>Limited use of or lack of credible and/or relevant resources to support claims made in the PSA assignment.</td>
</tr>
<tr>
<td><strong>Information Use</strong></td>
<td>Communicates, organizes, and synthesizes information from sources to complete PSA assignment, with clarity and depth.</td>
<td>Communicates and organizes information from sources. Information is not fully synthesized, so the intended purpose is not fully achieved.</td>
<td>Communicates information from sources. The information is fragment and/or used inappropriately.</td>
</tr>
<tr>
<td><strong>Content Development (Presentation)</strong></td>
<td>Uses appropriate, relevant, and compelling content to illustrate mastery of the subject, conveying the group’s understanding, and shaping the whole work (i.e., PSA).</td>
<td>Uses appropriate and relevant content to develop and explore ideas through most of the work (i.e., PSA).</td>
<td>Submitted PSA does not reflect appropriate and relevant use of content related to the controversial topic.</td>
</tr>
<tr>
<td><strong>Future Directions</strong></td>
<td>Conclusions and issues raised through the PSA assignment are used effectively to formulate questions/topics for future exploration.</td>
<td>Conclusions and issues raised through the PSA assignment are discussed, in brief, as a means for exploring future questions related to the controversial topic.</td>
<td>Limited or no discussion of how findings from the PSA assignment can inform future research or exploration related to the controversial topic.</td>
</tr>
<tr>
<td><strong>Teamwork</strong></td>
<td>Completes all assigned tasks by deadline; work accomplished is thorough, comprehensive, and advances the project. Proactively helps other team members complete their assigned task(s) to a similar level of excellence.</td>
<td>Completes all assigned tasks; work accomplished advances the project.</td>
<td>Does not complete assigned tasks; does not make major contributions to the team effort.</td>
</tr>
</tbody>
</table>

The above rubric was modified from existing evaluation rubrics found at [https://www.aacu.org/value-rubrics](https://www.aacu.org/value-rubrics).