Assessing Hands-on Learning in Special Collections: A Pilot Study
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Research Question
What is the effect of hands-on time with original primary source materials on students’ information literacy and critical thinking skills?

Pre-test analyzing primary documents
What type of document is this? Who were the creator and audience? Why was the document written? What questions do you have? What was surprising, unexpected, or emotionally engaging?

Post-test analyzing primary documents
What changes did you see in the pre-test? What changes did you see in the post-test?

Comparison of post-test and pre-test documents
What are the differences between the pre- and post-test documents?

Research and writing
Return visits to special collections

Paper
Using the same test but a different document

Data

Document Analysis: pre- and post-test evaluation
Rubric created by team leader
• Scale of 1 to 4
• Faculty evaluations
• Pre- and post-test not identified for evaluators

<table>
<thead>
<tr>
<th>Rubric Category</th>
<th>Pre-test Mean</th>
<th>Pre-test St. Dev.</th>
<th>Post-test Mean</th>
<th>Post-test St. Dev.</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>2.092</td>
<td>0.785</td>
<td>1.743</td>
<td>0.586</td>
<td>-0.349***</td>
</tr>
<tr>
<td>Materiality</td>
<td>2.171</td>
<td>0.482</td>
<td>2.071</td>
<td>0.802</td>
<td>-0.100 p = 0.417</td>
</tr>
<tr>
<td>Engagement</td>
<td>2.140</td>
<td>0.826</td>
<td>2.089</td>
<td>0.730</td>
<td>-0.051 p = 0.525</td>
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<tr>
<td>Observation</td>
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<td>2.032</td>
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We saw a decrease in four of five scores on post-test.
• Only engagement/critical understanding was significant
• Materiality scores increased
  o Working with original materials led students to
  o Think more deeply about the nature of materials
  o To look beyond the text
  o Students comment on fonts, borders, and ornamentation

Paper analysis
• AACRL specific for informational literacy with no search section
• Scale of 0 to 4
• Faculty evaluators
• Whether students used Special Collections not identified, though might be obvious from context

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No significant differences in student scores
• The ability to communicate, organize, and synthesize information ("use") is the category in which students using Special Collections scored higher
• Looking at disparate materials may have caused students to better compile and blend their sources

Claims & Contributions
Our data was mixed, showing significant change in only one set of scores in each part of the study. There are several potential reasons for this.

Time and exposure: Many students visited Special Collections only one to three times.

Document analysis exercise: Differences in the pre- and post-test documents . . .
• Pre-test document had an obvious empathetic connection
• Post-test document required more specific contextual knowledge . . .
• Many students visited Special Collections only one to three times.
• May have contributed to the lower scores on the post-test, especially the statistically significant decline in the engagement category.

Papers:
• Papers came from multiple classes with different assignments and teachers.
• However, we were pleased to see students making good rhetorical and historical arguments.

Conclusions & Recommendations
Explore options for having students come in more frequently as a group in order to work together to build skills.
Evaluate the same students at the end of their sophomore or junior year to see if further experience with original primary materials shows an effect.

Further Research
• Match pre- and post-test documents for
  o Depth of historical knowledge required to contextualize well
  o Physical elements
  o Obvious moments for empathy
  o So as to minimize questions about whether differences between the documents contributed to student performance.

We hope that this pilot study provides the special collections community with a useful example of assessment of student learning, as well as examples of methods, that could be useful in developing more robust performance assessment programs.