Understanding Research:
Assessing Library Impact on Academic Performance through an Online Courseware Pilot

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Middle Tennessee State University
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Project Goals and Design

- Overall goals of the project - use online information literacy courseware to:
  - Bridge the gap between one-shot sessions and final research projects
  - Provide point of need instruction for assignments
  - Assess if use of courseware improved academic performance
  - Assess if use of courseware increased student use of library resources
  - Assess if correlation exists between use of library resources and improved academic performance

- Project design:
  - Tied courseware to one general education, required course (Public Speaking)
  - Selected faculty collaborator
  - Designed courseware to match syllabus, course textbook, and assignments
  - Selected seven modules, rebranded as Understanding Research Courseware (URC)
Total Participation & Completion Rates
Fall 2015 & Spring 2016
n=240

<table>
<thead>
<tr>
<th></th>
<th>Fall 2015</th>
<th>Spring 2016</th>
<th>Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average URC Participation Rate</td>
<td>92%</td>
<td>88%</td>
<td>90%</td>
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<tr>
<td>Average URC Completion Rate</td>
<td>48%</td>
<td>45%</td>
<td>46%</td>
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</table>
### Watched Video Content by Percentage of Completion

**Spring 2016**

<table>
<thead>
<tr>
<th>Topic</th>
<th>0%</th>
<th>1-19%</th>
<th>20-39%</th>
<th>40-59%</th>
<th>60-79%</th>
<th>80-99%</th>
<th>100%</th>
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</thead>
<tbody>
<tr>
<td>Academic Integrity</td>
<td>82</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>What is Plagiarism?</td>
<td>57</td>
<td>9</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>17</td>
<td>5</td>
</tr>
<tr>
<td>Preparing a Presentation</td>
<td>62</td>
<td>4</td>
<td>2</td>
<td>6</td>
<td>3</td>
<td>8</td>
<td>15</td>
</tr>
<tr>
<td>Choosing a Database</td>
<td>72</td>
<td>3</td>
<td>5</td>
<td>1</td>
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<td>2</td>
<td>8</td>
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<tr>
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<td>1</td>
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<tr>
<td>Objectivity in Reporting</td>
<td>91</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Visual Literacy</td>
<td>92</td>
<td>4</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>6</td>
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<td>MLA Citations</td>
<td>48</td>
<td>2</td>
<td>3</td>
<td>1</td>
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<td>4</td>
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**Total Number of Students Enrolled in URC**

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**Total Number of Students in Each Percentile Range**
Comparison of Bibliographic Content Before and After URC
Spring 2016

*Instructor provided a baseline speech and bibliography that best exemplified the majority of student submissions received prior to Fall 2015.

**A minimum of six bibliographic resources was required. The use of library resources was not required, but was encouraged by the instructor and the librarians. Despite this encouragement, the average student bibliography submitted to the instructor prior to Fall 2015 did not include any library resources.
## Comparison of Average Grade Performances

**Spring 2016**

<table>
<thead>
<tr>
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<th>URC Grade for Participants</th>
<th>Final Speech Grade</th>
<th>Overall Course Grade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>All Students Enrolled in the Five Classes</strong> (n=115)</td>
<td>72.28</td>
<td>85.80</td>
<td>84.39</td>
</tr>
<tr>
<td><strong>Students Using Free Web Resources</strong> (n=25)</td>
<td>74.00</td>
<td>93.40</td>
<td>92.30</td>
</tr>
<tr>
<td><strong>Students Using At Least One Library Resource</strong> (n=21)</td>
<td>80.95</td>
<td>95.17</td>
<td>92.51</td>
</tr>
</tbody>
</table>
COMM 2200 Grade Averages
Comparison Between URC Classes and the University Average
Fall 2015 & Spring 2016

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<tr>
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<th>Spring 2016</th>
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</tr>
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<tbody>
<tr>
<td>URC Students</td>
<td>87.00</td>
<td>84.39</td>
<td>85.70</td>
</tr>
<tr>
<td>University Students</td>
<td>84.60</td>
<td>83.00</td>
<td>83.80</td>
</tr>
</tbody>
</table>

Students Enrolled in URC COMM 2200 Classes (n=240)

Students Enrolled in COMM 2200 Classes (n=3,198)
URC Survey Results
Student Feedback

**Likes:**
- Overall helpfulness for assignments (79%)
- Easy to understand / complete (95%)
- Mixture of learning / assessment options used (80%)
- Info adequately covered in manageable time frame (92%)
- Independent learning design— their own time and pace (82%)

**Dislikes:**
- Nothing new presented (52%)
- Assessments that required the application of concepts or critical thinking skills (write-in comments):
  - Paragraph / short answer questions – paraphrasing, summarizing, justifying responses
  - Analysis questions – forming conclusions and opinions
Student Survey Response
Fall 2015

Was the face-to-face library instruction session helpful?

n=94

Yes: 87.23%
No: 12.77%
Observations & Unexpected Behaviors:

- Following directions (creating accounts, logging-in, screen prompts, meeting syllabus due dates)
- Choosing not to complete the lessons despite the mandatory requirement (loss of a homework letter grade)
- Cheating in every form (skipping of info content and answering questions, lying about technical issues and demanding credit, exploiting any small software glitch for personal gain)
- Applying information concepts to short answer questions was the most difficult task for all students (aversion to critical thinking)
- Possessing a different ethical value system in terms of integrity and earned grades ("stealing is a form of flattery"; copying is not plagiarism and is instead "mixing and sampling"; current plagiarism ethics are too old, too restrictive, and not in touch with the real world)
- Performing poorly on modules related to integrity and evaluating sources
Online IL Courseware Can Successfully Function in the Correct Context:

- Must be required – can be collaboration with faculty who plan ahead or can be assignment driven
- Must have complete control over content, editing, design, and analytics
- Content must be customized to assignments and academic institutions
- Courseware must possess robust analytics, timestamps (or similar) for accountability, and provide access to tech support with quick response times
- Must acknowledge the HUGE time commitment and technical expertise necessary to design, implement, and trouble-shoot problems
- Student bibliographies used as evidence for speeches, essays, and research papers must be graded with feedback about the selected resources
An executive summary of this research pilot is available:

http://jewlscholar.mtsu.edu/handle/mtsu/5055

Questions?
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Ashley.Shealy@mtsu.edu

Special thanks to:
- Dean Bonnie Allen, MTSU Walker Library
- User Services Chair, Christy Groves
- Instructor Steve Decker, MTSU Communications Dept.
- MTSU Librarians for their moral support