Evaluating the Impact of Face-to-Face and Online Information Literacy and Writing Skills Instruction Using a Mixed Methods Research Design

Melanie Parlette-Stewart | Karen Nicholson | Kim Garwood | Trent Tucker
University of Guelph
AGENDA

• Our Project
• Data
  • Quantitative
  • Qualitative
• Coding Activity
• Lessons Learned for Research
• Lessons Learned for Practice
AIA & Action Research

• Team-based
• Focus on library’s impact on student success

Action Research
• Inquiry conducted by practitioners to improve practice
• 7 steps
MGMT 1000

• We knew we were going to be looking at Problem-Based Learning (PBL) assignments
• Required course for all B. Comm. (800 first-year students)
Research Questions

What practices do students engage in when finding, selecting and citing information in their assignments?

What impact do face-to-face and online instruction have on the information literacy and writing skills of MGMT students?
Research Design

- Consent
- Intervention
- Pre-/post test using PBL assignments
- Focus groups
- Confidence and satisfaction scales
<table>
<thead>
<tr>
<th></th>
<th>Thursday</th>
<th>Friday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing</td>
<td>Online</td>
<td>F2F</td>
<td>Online</td>
<td>F2F</td>
<td>Online</td>
</tr>
<tr>
<td>Research</td>
<td>Online</td>
<td>F2F</td>
<td>F2F</td>
<td>Online</td>
<td>Online</td>
</tr>
<tr>
<td>Sections</td>
<td>5</td>
<td>3</td>
<td>5</td>
<td>5</td>
<td>4</td>
</tr>
</tbody>
</table>
Design: Learning Outcomes

Information Literacy Outcomes

At the end of the class, students will be able to:

• Identify relevant types of information sources for the assignment, including journal and news articles, statistical data or company information

• Apply criteria such as relevance and authority in order to select sources that support their argument
Design: Learning Outcomes

Writing Outcomes

At the end of the class, students will be able to:

• Describe when to cite sources
• Describe why citing sources is important
• Create a list of References correctly using APA style
• Use in-text citations effectively to support claims that require evidence
Design: Online Modules

Research Module
- Used CourseLink (D2L CMS)
- 6 sections
- Included 6 Videos and Test Your Knowledge (Self-Assessment Questions)
Design: Face-to-Face

- Time Constraint: 30 minutes (each for Writing / Research)
- Application Activity
- Observed issues
Design: Surveys

- Confidence (Likert)
- Satisfaction (Likert)
- Perceived value (“recommend”)
- Print Survey in Class / Optional Online

MGMT1000 LIBRARY RESEARCH SKILLS PRESENTATION EVALUATION FORM

After watching the library research skills presentation, please indicate how confident you feel about the following:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can do a keyword search in the ABI Inform database</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>When searching the ABI Inform database, I am able to select the most</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>relevant sources by looking at the source type, scanning the subject</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>headings, and reading the abstracts</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>When searching the ABI Inform database, I am able to manipulate the</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>result list not using filters such as date and publication type</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can use the GetIt, GetIt button to retrieve sources not available in</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>the ABI Inform database</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can define relevance in my own words</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>I can apply criteria such as publication type, intended audience and</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>content in order to increase the relevance of a source</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>I can identify five basic criteria to consider when citing sources</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

Please tell us how you would rate the content and pace of the library    |
research skills presentation:

<table>
<thead>
<tr>
<th>Statement</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>The amount of content was appropriate for my learning</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
<tr>
<td>The pace was appropriate for my learning</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
</tr>
</tbody>
</table>

I would recommend the library research skills presentation to a classmate |
□ Yes □ No □ Not sure
Quantitative Data

- Quality improvement
- Internal
- 559 students should have looked at the online Information Literacy Module

**Online Module Activity: Research**

- 89% (62) Looked at Online Module
- 11% (497) Did Not Look at Online Module
• Some students who watched the modules shouldn’t have been able to see them.
• Most of the students who should have looked at the modules didn’t.
Survey Responses

Information Literacy: Survey Response Rates

<table>
<thead>
<tr>
<th></th>
<th>Completed Survey</th>
<th>Did Not Complete Survey</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>53</td>
<td>506</td>
</tr>
<tr>
<td>F2F</td>
<td>179</td>
<td>131</td>
</tr>
</tbody>
</table>
**INTRODUCTION TO COURSE GUIDE**

- **FIND INFORMATION USING ABI/INFORM**: 238 seconds
- **USING GET IT! GUELPH TO CONNECT TO SOURCES**: 155 seconds
- **WHY YOU SHOULD EVALUATE YOUR SOURCES**: 198 seconds
- **EVALUATE YOUR SOURCES FOR AUTHORITY**: 161 seconds
- **EVALUATE YOUR SOURCES FOR RELEVANCE**: 146 seconds

**Average Time Spent (seconds)** vs. **Real Time Video Length (seconds)**
I would recommend the library research skills presentation to a classmate or I would recommend the library research skills videos to a classmate.

Perceived Value

Online
- Yes: 39 (74%)
- Not Sure: 10 (19%)
- No: 4 (8%)
- No Response: 0 (0%)

F2F
- Yes: 146 (82%)
- Not Sure: 20 (11%)
- No: 12 (7%)
- No Response: 1 (1%)
I can **apply criteria** such as publication type, intended audience and content in order to **increase** the relevance of a source.

Confidence

<table>
<thead>
<tr>
<th>Confidence Level</th>
<th>Online</th>
<th>F2F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Strongly Agree</td>
<td>10, 19%</td>
<td>50, 28%</td>
</tr>
<tr>
<td>Agree</td>
<td>20, 38%</td>
<td>92, 51%</td>
</tr>
<tr>
<td>Neutral</td>
<td>16, 30%</td>
<td>29, 16%</td>
</tr>
<tr>
<td>Disagree</td>
<td>5, 9%</td>
<td>4, 2%</td>
</tr>
<tr>
<td>Strongly Disagree</td>
<td>0, 0%</td>
<td>2, 1%</td>
</tr>
<tr>
<td>No response</td>
<td>0, 0%</td>
<td>1, 1%</td>
</tr>
</tbody>
</table>
Qualitative Data

CONSENTING STUDENTS
- Consent: 210
- No Consent: 659

CONSENTING GROUPS
- Consent: 165
- No Consent: 11
PBL Assignments

- Problem-Based Learning Business Report
  - Role of “Business Analyst”
  - Recommend a decision
  - Make a case for decision through research, well-written arguments, and exploring all sides of the issue
Roadblock

• We can’t generalize or demonstrate correlation.
• We can only use a case study approach.
Sampling

• We selected PBL assignments 2 and 3 for analysis (because pre-/post).

• Within the groups that had consented, we selected one group that had each type of treatment.

<table>
<thead>
<tr>
<th>Group</th>
<th>Day</th>
<th>Research</th>
<th>Writing</th>
<th>TA</th>
</tr>
</thead>
<tbody>
<tr>
<td>121-06</td>
<td>Friday</td>
<td>F2F</td>
<td>F2F</td>
<td>Luke</td>
</tr>
<tr>
<td>101-03</td>
<td>Wednesday</td>
<td>Online</td>
<td>Online</td>
<td>Dany</td>
</tr>
<tr>
<td>214-03</td>
<td>Tuesday</td>
<td>Online</td>
<td>F2F</td>
<td>Naman</td>
</tr>
<tr>
<td>209-05</td>
<td>Monday</td>
<td>F2F</td>
<td>Online</td>
<td>Marlee</td>
</tr>
</tbody>
</table>
Roadblock

• Focus Groups
Coding

References


http://www.ctvnews.ca/canada/dating-website-regrets
1.1459673


itive-ad/
Activity

Code #11 & #12 for:

✓ News
✓ Government source
✓ Journal article
✓ Wikipedia
✓ Company Information or Document
✓ Book
✓ Website
✓ Magazine article
✓ Other or Unknown
## Rubric: Sources of Data

<table>
<thead>
<tr>
<th>(A) Excellent 18 - 20 points</th>
<th>(B) Good 14 - 17 points</th>
<th>(C) Acceptable 10 - 13 points</th>
<th>(D) Minimally Acceptable 6 - 9 points</th>
<th>(F) Fail 0 - 5 points</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains effective scholarly research that incorporates sophisticated sources (e.g., journal articles) in support of the decision.</td>
<td>Incorporates valid sources (e.g., top quality news sources; edited/reviewed texts) in support of the decision.</td>
<td>Contains adequate sources (e.g., news sources) that only tangentially support the decision.</td>
<td>Incorporates inadequate (e.g., Wikipedia, blog posts, non-edited/reviewed sources) or inadvertent sources that fail to support the decision.</td>
<td>Sources are absent or plagiarism has occurred or citations are not associated with references (vice versa).</td>
</tr>
</tbody>
</table>
Roadblock

- Rubric and assignment requirements don’t align
- TAs inconsistent across the groups but also not consistent within their own groups
  - Might not grade the same way we might have
  - We need to teach the TAs differently
- Teaching Format / Citations
Lessons Learned: Practice

- Value of the one-shot
- Siloed approach artificial: research and writing separate; focus on mechanics of search
- Constructive alignment
- Rubric + assignment + TAs + what students (think) they know
- What we presented and requirements of assignment
Lessons Learned:
Research

- “Data” person from the start
- Simplify the experiment – we had too many research questions
- Group Assignments not ideal when gathering consent
- You have to get people to your focus group
- Ensure research question can be answered by experiment
- Redundancy
Research Questions Answered?

What practices do students engage in when finding, selecting and citing information in their assignments?

What impact do face-to-face and online instruction have on the information literacy and writing skills of MGMT students?
Questions?

Melanie Parlette-Stewart  
mparlett@uoguelph.ca  
@melanie_sarah_  

Karen Nicholson  
kanichol@uoguelph.ca  
@nicholsonkp
Quantitative Data

- Quality improvement
- Internal
- 556 students should have looked at the online Writing Module

Online Module Activity: Writing

- 87% Looked at Online Module (70)
- 13% Did Not Look at Online Module (486)
Videos

Time Spent Watching Videos

<table>
<thead>
<tr>
<th>Average Time Spent (seconds)</th>
<th>Real Time Video Length (seconds)</th>
</tr>
</thead>
<tbody>
<tr>
<td>119</td>
<td></td>
</tr>
<tr>
<td>131</td>
<td></td>
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<tr>
<td>112</td>
<td>125</td>
</tr>
<tr>
<td>104</td>
<td>153</td>
</tr>
<tr>
<td>99</td>
<td>106</td>
</tr>
</tbody>
</table>

CITE YOUR SOURCE:
WHEN / WHY TO CITE
APA IN-TEXT
ARTICLE FROM A PERIODICAL IN APA
APA REFERENCE LIST
Perceived Value

**Writing Data**

I would recommend the writing skills presentation to a classmate or I would recommend the writing skills videos to a classmate.

- **F2F**
  - Yes: 136, 79%
  - Not Sure: 20, 12%
  - No: 14, 8%
  - No Response: 2, 1%

- **Online**
  - Yes: 35, 70%
  - Not Sure: 12, 24%
  - No: 3, 6%
  - No Response: 0, 0%
Confidence

I can create a Reference List correctly in APA style.

<table>
<thead>
<tr>
<th></th>
<th>Strongly Agree</th>
<th>Agree</th>
<th>Neutral</th>
<th>Disagree</th>
<th>Strongly Disagree</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>F2F</td>
<td>79, 46%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online</td>
<td>20, 40%</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Legend:
- Strongly Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- No Response