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

### MGMT 1000 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 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 Get It button to retrieve sources not available in the</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>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% Looked at Online Module (62)
- 11% Did Not Look at Online Module (497)
Roadblock

• 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

Online
- Completed Survey: 53
- Did Not Complete Survey: 506

F2F
- Completed Survey: 179
- Did Not Complete Survey: 131
INTRODUCTION TO COURSE GUIDE
FIND INFORMATION USING ABI/INFORM
USING GET IT! GUELPH TO CONNECT TO SOURCES
WHY YOU SHOULD EVALUATE YOUR SOURCES
EVALUATE YOUR SOURCES FOR AUTHORITY
EVALUATE YOUR SOURCES FOR RELEVANCE

Average Time Spent (seconds)  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.

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>Not Sure</th>
<th>No</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online</td>
<td>39, 74%</td>
<td>10, 19%</td>
<td>4, 8%</td>
<td>0, 0%</td>
</tr>
<tr>
<td>F2F</td>
<td>146, 82%</td>
<td>20, 11%</td>
<td>12, 7%</td>
<td>1, 1%</td>
</tr>
</tbody>
</table>
I can **apply criteria** such as publication type, intended audience and content in order to **increase the relevance** of a source.
Qualitative Data

CONSENTING STUDENTS
- Consent: 210
- No Consent: 659

CONSENTING GROUPS
- Consent: 11
- No Consent: 165
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
PBL: Themes and Topics

Themes:
- Sextist Tweets
- Problem-Based Learning
- Toronto Fire Service
- Facebook
- Current Events
- Joe Fresh
- Walt Disney

Topics:
- Apparel Industry
- Rehtaeh Parsons
- Privacy
- Bangladesh
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-regret-1.1459673


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
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
@mnelanie_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%
- 13%

Did Not Look at Online Module (486)
Looked at Online Module (70)
Videos

Time Spent Watching Videos

- Average Time Spent: 119, 131, 112, 125, 104, 99, 106 seconds
- Real Time Video Length: 153, 99 seconds

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

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

### Writing Data

**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%)

[Chart showing distribution of responses for F2F and Online formats]
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>81, 47%</td>
<td>10, 6%</td>
<td>1, 1%</td>
<td>0, 0%</td>
<td></td>
</tr>
<tr>
<td>Online</td>
<td>20, 40%</td>
<td>21, 42%</td>
<td>0, 0%</td>
<td>4, 8%</td>
<td>4, 8%</td>
<td>1, 2%</td>
</tr>
</tbody>
</table>

Confidence