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

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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>Thursday</th>
<th>Friday</th>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing: Online</td>
<td>Writing: F2F</td>
<td>Writing: Online</td>
<td>Writing: F2F</td>
<td>Writing: Online</td>
</tr>
<tr>
<td>Research: Online</td>
<td>Research: F2F</td>
<td>Research: F2F</td>
<td>Research: Online</td>
<td>Research: Online</td>
</tr>
<tr>
<td>Sections: 5</td>
<td>Sections: 3</td>
<td>Sections: 5</td>
<td>Sections: 5</td>
<td>Sections: 4</td>
</tr>
</tbody>
</table>
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
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></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</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>the most relevant sources by looking at the source type,</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>scanning the subject 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</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>manipulate the result list not using filters such as date</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>and publication type</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I can use the GetIt Quick button to retrieve sources</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>not available in 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,</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>intended audience and content in order to increase the</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>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</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>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></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

- 11% Did Not Look at Online Module (497)
- 89% Looked at Online Module (62)
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.

**Perceived Value**

<table>
<thead>
<tr>
<th></th>
<th>Yes (F2F)</th>
<th>Not Sure (F2F)</th>
<th>No (F2F)</th>
<th>No Response (F2F)</th>
<th>Yes (Online)</th>
<th>Not Sure (Online)</th>
<th>No (Online)</th>
<th>No Response (Online)</th>
</tr>
</thead>
<tbody>
<tr>
<td>F2F</td>
<td>146, 82%</td>
<td>20, 11%</td>
<td>12, 7%</td>
<td>1, 1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Online</td>
<td>39, 74%</td>
<td>10, 19%</td>
<td>4, 8%</td>
<td>0, 0%</td>
<td></td>
<td></td>
<td></td>
<td></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
• 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

MGMT4000 • Problem-Based Learning Business Report Format

The purpose of this document is to detail the requirements of the “Business Reports” your Problem-Based Learning (PBL) Team will submit to the Dropbox at CourseLink in Weeks 09, 10, 11, and 12. The Business Report format is based on that found in the recommended (but not required) Making Sense book by Northey and McKibbin.

Technical Requirements:
Like the Micro-Tyco Team’s Business Plan document, your PBL Team’s Business Reports should be single-spaced, 12-point serif font (e.g., Times New Roman, Cambria, Century Schoolbook, etc.). Citations should be in-text citations (no footnotes) and along with the references must be in APA style. Your document must be saved in PDF—Portable Document Format! Include your Team’s Number (e.g., 0208-PBL-06) at the top of the first page—there is no need for a separate cover page. Include all of your team member’s names and student ID #’s. All the business reports for all the PBL problems should be B-10 pages in length, excluding any extra pages for references, exhibits, etc.

Content Requirements:
You can think of your team as having the role of “Business Analyst”. A decision maker has come to seek your advice on an issue. Your team will examine the issue (problem) from a number of different points of view and then recommend a decision to the decision maker. In the sample problem we will do in seminar in Week 08, you are a reporter with a snowboarding magazine and you need to make a recommendation to your editor—should the magazine report on the story about the snowboarders refusing the Red Bull sponsorship deal? If they should not report it, why not? If they should report it, is there any ‘spin’ they should put on the story? If so, why so? There is no right or wrong answer to these problems! There are, however, varying degrees to which you can make your case for the decision your team chose. Your team’s mission then, is to make a compelling case for the decision through research, well-written arguments, and exploring both sides (all sides!) of the issue.
PBL: Themes and Topics

Themes:
- Apparel Industry
- Privacy
- Bangladesh
- Sextist Tweets
- Problem-Based Learning
- Toronto Fire Service
- Walt Disney
- Twitter
- Current Events
- Abercrombie
- Facebook
- Joe Fresh
- Rehtaeh Parsons
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>
• Focus Groups
References


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?

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Karen Nicholson
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@nicholsonkp
Quantitative Data

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

Online Module Activity: Writing

- Did Not Look at Online Module (486)
- Looked at Online Module (70)
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>131</td>
</tr>
<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

CITE YOUR SOURCE: APA IN-TEXT

CITE YOUR SOURCE: ARTICLE FROM A PERIODICAL IN APA

CITE YOUR SOURCE: APA REFERENCE LIST

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

**Perceived Value**

**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%
Confidence

I can create a Reference List correctly in APA style.

F2F
- Strongly Agree: 79 (46%)
- Agree: 81 (47%)
- Neutral: 10 (6%)
- Disagree: 1 (1%)
- Strongly Disagree: 1 (1%)
- No Response: 0 (0%)

Online
- Strongly Agree: 20 (40%)
- Agree: 21 (42%)
- Neutral: 4 (8%)
- Disagree: 0 (0%)
- Strongly Disagree: 4 (8%)
- No Response: 1 (2%)