2010: It was the __ of times
Assessment Instruments

● ETS iSkills
   ○ $18-20 per student

● SAILS
   ○ $4 per student

● James Madison University ILT
Our saving grace was a drink....
and then it was 1985
VICE and the timeline

VICE (Virtual Information Competency Evaluation)

Late 2010: Initial Question Design
Summer 2011: Question Finalization
August 2011: First Class
August 2012: Second Class
June-August 2013: Third Class
September 2013: Followup for First Class
Samples

● Convenience Sample
  ○ Approx 500 students of 3500 total First Years
    ■ ~4.0-4.5% Confidence Interval
    ■ Reported by cohort (but individ scores possible)

● Students Recruited at Univ Outreach Events
  ○ Welcome Week Library Open House
  ○ New Student Orientation (2013+)
Question Crafting Process

Based on ACRL’s Information Literacy Standards

For first year-questions, foundational competency level skills in five areas:

- Defining
- Searching
- Critiquing/Analysis
- Synthesis
- Citing
<table>
<thead>
<tr>
<th>Competency Levels:</th>
<th>Information Literacy Components</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Foundation</strong></td>
<td><strong>Framing the Research Question</strong>&lt;br&gt;- Begins to understand the value of finding evidence to support ideas and opinions&lt;br&gt;&lt;br&gt;<strong>Debate Topics:</strong> Students prepare for and present evidence from both sides of an argument</td>
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<td><strong>Thematic</strong> (Intermediate)</td>
<td><strong>Accessing Sources</strong>&lt;br&gt;- Identifies keywords, synonyms, and related terms to describe information need effectively&lt;br&gt;&lt;br&gt;<strong>Tagging Exercises:</strong> Students scan articles for keywords and tag them using Delicious</td>
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<td></td>
<td><strong>Evaluating Sources</strong>&lt;br&gt;- Understands that there are differences in sources of information&lt;br&gt;&lt;br&gt;<strong>Openly Discussing Credible Evidence:</strong> Library or classroom discussions on scholarly vs. popular research, including overview of Wikipedia</td>
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<td><strong>Evaluating Content</strong>&lt;br&gt;- Identifies an author’s thesis/main point and basic structure of the information&lt;br&gt;&lt;br&gt;<strong>Annotated Bibliography:</strong> Students include evaluative information about each source in their bibliography, including how it benefits their paper and the overall quality/credibility of it</td>
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<td><strong>Using Information for a Specific Purpose</strong>&lt;br&gt;- Organizes informational content to support the purposes of the student’s product&lt;br&gt;&lt;br&gt;<strong>Summary Exercises:</strong> Students read a selection and summarize it in their own words</td>
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<td></td>
<td><strong>Understands Contexts and Ethics of Information Use</strong>&lt;br&gt;- Understands what constitutes plagiarism&lt;br&gt;&lt;br&gt;<strong>Utilize Miami eScholar:</strong> Students complete an online tutorial to increase familiarity with University policy on plagiarism</td>
</tr>
<tr>
<td><strong>Capstone</strong> (Advanced)</td>
<td><strong>Identifies appropriate discipline-specific and general indexes and databases needed to find relevant information</strong>&lt;br&gt;&lt;br&gt;<strong>Library Research Appointments:</strong> Students have individual consultations with Librarian to identify appropriate databases</td>
</tr>
<tr>
<td></td>
<td><strong>Modifies search strategies to ensure that information retrieved is comprehensive enough to address the issue at a level appropriate for a senior</strong>&lt;br&gt;&lt;br&gt;<strong>Research Journal:</strong> Students record the research process by writing critically about their search strategies and how they have refined them to find appropriate resources</td>
</tr>
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<td></td>
<td><strong>Develops ability to integrate new information with prior knowledge</strong>&lt;br&gt;&lt;br&gt;<strong>Reflection:</strong> Students articulate how they integrated the forms of knowledge together and the positives / negatives encountered</td>
</tr>
</tbody>
</table>
| | **Online Image Search:** Students search for images that are in the Public Domain or licensed under Creative Commons and cite them accordingly<br><br>**Research Paper with Evaluative Annotated Bibliography:** The annotated bibliography includes ALL resources discovered during the research process, plus additional resources.
Question Crafting

Created 1-3 questions for each component within those categories. This is Foundational Defining. Code for each outcome.

- FD 1: Recognizes the need to find information to fill gaps in knowledge
- FD 2: Begins to understand the value of finding evidence to support ideas and opinions
- FD 3: Explores general information sources to increase familiarity with a topic
Question Crafting

- Miami specific, but not too much so
- Free from jargon, misleading words or tricky questions
- Keep it foundational, not too challenging
- Multiple choice, which meant we needed to come up with wrong answers (Hard part)
Tips for Good Questions

One objective per question
Positively phrased
Simple and precise wording
Longer question, shorter answers
Avoid all of the above/none of the above
Don’t give it away: keyword in the answer
Make wrong answers/distractors plausible
Example of Question Creation

FD 3: Explores general information sources to increase familiarity with a topic

Your psychology professor asks you to come in the next day prepared to give a brief definition and historical overview of evolutionary psychology, including common research areas and the main points of the discipline’s theory. What would you use to find this information?

a) Library catalog
b) Database
c) Dictionary
*d) Encyclopedia
Problem Questions (after year 1)

We looked at question results
Remove library jargon or explain it in the question
Take a second look at Miami specific questions, incoming first-years wouldn’t know yet
Linking out to outside websites was problematic
Creating Intermediate/Capstone Q’s

- 1st year more identification, beyond is more application and synthesis
- Make them apply the knowledge
FY3/IY3 “Understands the difference vs develops the ability to”
- Look at the Foundational question and make it harder or more in depth
- Questions about Ethics and copyright
Comparison of Results, 2011-2013

- 3 years of data
- Consistent response rates
  - Reliable questions
COMPARISON OF TEST RESULTS FOR 2011-2013

39% Understands advanced search methods
32% Explores resources to increase familiarity with a topic
83% Recognizes need to fill in knowledge gaps
60% Understands what constitutes plagiarism
Correct Scores (%), 2011-2013
IL Challenges

- Using/Understanding academic texts
- Performing sophisticated searches
- Citing
- Incorporating/representing others’ ideas

What information literacy skills did the class of 2016 have upon entering MU? Assessment Brief #72. February 15, 2013.
Teaching IL

● Assume students are familiar with Google but not academic sources
  ○ Significance and value of academic sources
  ○ When framing assignments -- watch restrictions

● Clarify expectations with citing
  ○ Discipline-specific formats
  ○ Direct quote vs. paraphrasing
3rd Years: do they know everything?

Beta test for 3rd years: in progress
- Recruited students from 2011 sample
- Retested on questions from 2011 with poor results
- Included certain questions with 50-80% success
- Asked more advanced questions (not from 2011)
What did we find out?:

Stasis

Recognizes the need to find information to fill gaps in knowledge

Reviews information retrieved to assess the reliability of the source using set criteria.
What did we find out?

Improvement!

**Identifies Appropriate Investigative Methods**

<table>
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<th>Year</th>
<th>% correctly answered</th>
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<tr>
<td>First Years</td>
<td>21</td>
</tr>
<tr>
<td>Third Years</td>
<td>78</td>
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</table>

**Cites information in proper style based on course/discipline requirements.**

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<tr>
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<td>40</td>
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<tr>
<td>Third Years</td>
<td>71</td>
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</table>
What did we find out?

More advanced skills

Differentiates between sources. Primary and secondary

- % Incorrect: 8
- % Correct: 92

Recognizes prejudice and/or deception.

- % Incorrect: 31
- % Correct: 69
What’s next?

- Further refine 3rd year questions (also 1st yr)
- Close the assessment loop
  - targeting classes/winter term retreat
- External validation (and reliability measures)
- Share results with faculty