Visual Literacy Assessment: Engaging Students to Improve Success

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Premise

As technology plays an ever increasing and vital part of student engagement and scholarship, Libraries have developed spaces to accommodate these needs.

Information Commons and other dedicated technology spaces provide students with the software, hardware, and expertise needed to complete both basic and complex projects. Assessment of these spaces has traditionally been based solely on usage, including users per time period or number of software uses. However, as library assessment culture continues to mature, matching student success to these rooms is necessary.

To that end, we developed a Visual Literacy rubric to examine posters and help answer the above issue. The rubric looks at both the content and design of the poster and the knowledge of the person evaluating the person on what they have designed.

Goal and Research Question

The goal of the following study was to evaluate the impact of the use of the Center for Information Management (CIM) on student poster presentations at the 2014 Miami University Undergraduate Research Forum. Our hypothesis was that students who used the CIM services would show higher degrees of visual literacy as compared to those who didn't.

What is the probability that those students who use CIM services will achieve at least an advanced level?

CIM Services

- Desktop publishing software (Adobe Acrobat, Distiller, Illustrator, InDesign, & Microsoft Publisher)
- Image manipulation software (Adobe Photoshop, iPhoto)
- GIS Applications (ARCMap, ArcToolbox)
- Quantitative Analysis software (Minitab, SPSS, SAS)
- Flatbed scanners and large format scanning

ACRL Visual Literacy Standards

http://www.ala.org/acrl/standards/visualliteracy

The 21st century digital world requires a level of visual literacy in order to completely engage with an be successful in today's society. The ACRL Visual Literacy Competency Standards for Higher Education (October 2011) define visual literacy as "a set of abilities that enables an individual to effectively find, interpret, evaluate, use and create images and visual media" (p. 1). ACRL outlines performance indicators and learning outcomes that can be utilized to evaluate student development and success. The services provided at Miami University Libraries and the Center for Information Management (CIM) in particular, play a role in developing visual literacy in students.

Process

- 75 posters were randomly selected from the Miami University undergraduate research fair (from a total of 270 posters)
- Poster creators were asked before the session if they used services in CIM and Digital Den
- The rubric was normed by the three reviewers before the fair. Additionally, a sample of 5 posters per sessions were reviewed by two reviewers (usually each poster was reviewed by one reviewer)

A five variable rubric based on Quinnipiac University's Visual Literacy Essential Learning Outcome Rubric was used as an assessment tool. The five variables were scored as 1 (Ineffective), 2 (Effective), 3 (Advanced), or 4 (Outstanding) and are as follows:

- Interpreter-Meaning

- Interpreter-Parts/Whole

- Interpreter-Design

- Creator-Product & Content

- Created-Design

Results

Students who used CIM services were more likely than those who didn't to score at least an advanced level across all five variables.

VARIABLE	# OF TIMES MORE LIKELY TO REACH THE ADVANCED LEVEL
Interpreter-Meaning	4
Interpreter-Parts/Whole	2.7
Interpreter-Design	6.5
Creator-Product & Content	2.7
Creator-Design	6

Statistical Analysis Conducted: Binary Logistic Regression
. Looks at the data divided into two categories (ineffective & effective) and (advanced & outstanding).
. Accounts for possible differences between raters.
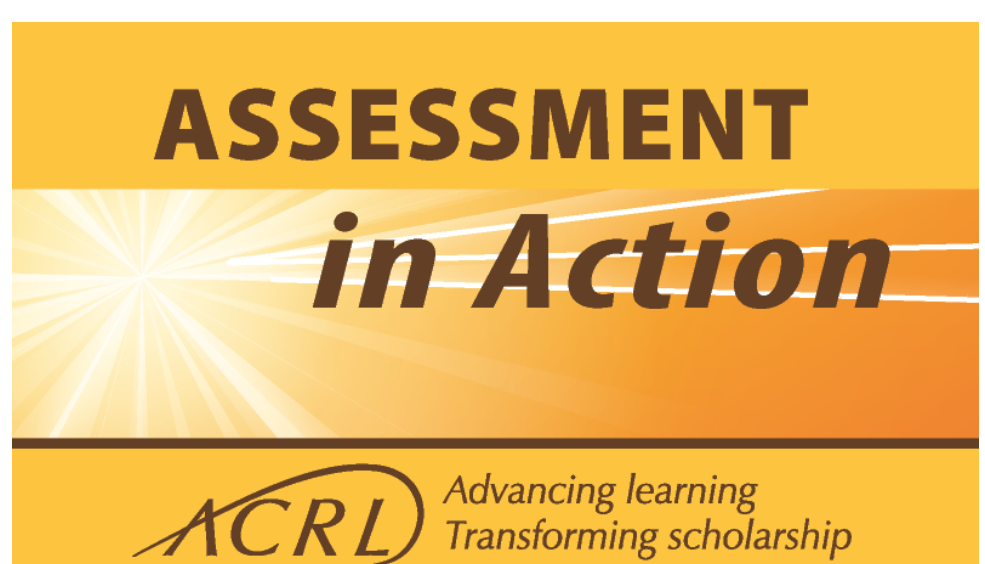
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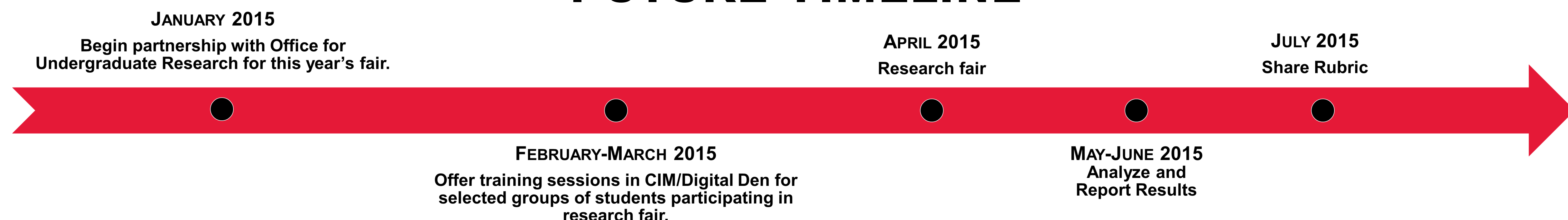eric.resnis@miamioh.edu

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MIAMI UNIVERSITY LIBRARIES

ASSESSMENT in Action
ACRL Advancing learning Transforming scholarship

Future Timeline

January 2015
Begin partnership with Office for Undergraduate Research for this year's fair.

February-March 2015
Offer training sessions in CIM/Digital Den for selected groups of students participating in research fair.

April 2015
Research fair

May-June 2015
Analyze and Report Results

July 2015
Share Rubric