ELIS: 15+ years of an Embedded Library Instruction Program
Wisconsin Association of Academic Librarians 2016 Conference

Michael F. Strahan
Professor, Instruction Coordinator, & Distance Library Services Librarian
Lydia M. Olson Library, Division of Academic Information Services (AIS)

Northern Michigan University, Marquette
Where is Northern Michigan University?
What is ELIS - Embedded Library Instruction Services?

- **Personal pro-active** library instruction
- All types of courses: web-enhanced, hybrid, and online-only
- Delivered via course management system (CMS), wiki, and NMU Listserv
- All levels: one-year certificate through doctorate
Laptop Campus Since Fall 2000

- All full-time undergraduate & graduate students are issued a laptop with a standard set of applications & WiMax/4G LTE (part of tuition).
- All buildings / classrooms have wireless network access. NMU-licensed WiMax & 4G LTE throughout much of county (applied for U.P.-wide license).
ELIS - Embedded Library Instruction Services

Key to our success
(1,000+ ELIS sessions)

Trust
between
Library Faculty & Course Instructors
The Team

- All 8 Library Faculty (12-month & 9-month librarians) (includes Metadata & Cataloging Librarian, and the Head of Technical Services/Systems)
- Course Instructors
- Center for Teaching and Learning (CTL)
- CMS Programmer
The History

2000

- Presence in WebCT through “test student” (generic identity)
- Librarian and CJ instructor collaborated (LI & co-authored assignments)
- Links to librarian & library guides
- Instructor-created Library discussion threads
More History

- 2004
  - Influenced by Jill Markgraf’s WAAL Presentation entitled *Lurking Librarian Tells All: Collaborating with Faculty in Online Courses*
  - We then changed our presence in WebCT to “guest speakers” (real name identity)
  - Librarian-created Library discussion threads
  - Librarian sessions using Mediasite Live streaming
  - Expansion into Education & Nursing programs
More History

- 2009
  - Presence in WebCT labeled as “embedded librarian”
  - Developed and implemented new policies & procedures
  - AIS Dean designated ELIS as 1 of 5 Library Strategic Directions for NMU’s Road Map to 2015
More History

- 2010
  - Implemented Moodle™ (branded as NMU EduCat™)
  - Librarians built their own blocks

- 2011
  - ELIS becomes one of the Library’s AQIP (Academic Quality Improvement Program) assessment projects
ELIS Model - EduCat (2010)
Recent History

- **2012**

  - **List of Courses** report automatically updated nightly

<table>
<thead>
<tr>
<th>Course Number</th>
<th>Course Instructor</th>
<th>Embedded AIS Faculty Member</th>
</tr>
</thead>
<tbody>
<tr>
<td>AH 101 - Role Development in Nursing Practice - AH101MF</td>
<td>Mary Franczek</td>
<td>Michael Strahan (2463)</td>
</tr>
<tr>
<td>CLS 313 Introduction to Clinical Research - CLS313MS55</td>
<td>Mary Stunkard</td>
<td>Michael Strahan (2463)</td>
</tr>
<tr>
<td>CLS 403 Advanced Immunohematology - CLS403MS55</td>
<td>Mary Stunkard</td>
<td>Michael Strahan (2463)</td>
</tr>
<tr>
<td>CLS 420 Clinical Educational Practices - CLS420CB55</td>
<td>Catherine Bammert</td>
<td>Michael Strahan (2463)</td>
</tr>
<tr>
<td>CLS 541 - Clinical Applications of Genomic Medicine - CLS541CB</td>
<td>Catherine Bammert</td>
<td>Michael Strahan (2463)</td>
</tr>
<tr>
<td>CLS 544 - Molecular Diagnosis of Infectious Disease - CLS544PM</td>
<td>Paul Mann</td>
<td>Michael Strahan (2463)</td>
</tr>
<tr>
<td>CLS 560: Biomedical Lab Operations - CLS560MS55</td>
<td>Mary Stunkard</td>
<td>Michael Strahan (2463)</td>
</tr>
<tr>
<td>ED 500 Educational Research - ED500KH</td>
<td>Kenneth Holder</td>
<td>SaraJane Tompkins (2431)</td>
</tr>
<tr>
<td>ED 511 Trends in the Teaching of Language Arts - ED511CE55</td>
<td>Christi Edge</td>
<td>SaraJane Tompkins (2431)</td>
</tr>
<tr>
<td>ED 541B Supervision of Instruction - ED541BBB55</td>
<td>Bethney Bergh</td>
<td>SaraJane Tompkins (2431)</td>
</tr>
</tbody>
</table>
Recent History

2013

- Standard Library Block design becomes available to embedded librarians
Recent History

2014

- Instructor requests embedded librarian from within EduCat, which automatically:
  - Inserts library liaison into course & notifies that librarian
  - Adds Library Discussion Forum
  - Creates Library Block with librarian contact info (draws from library liaison database)
  - Also link to librarian contact page (example)
    - LibraryH3lp live chat, Skype, Zoom, etc.
    - When @ reference or available for appointments

Library guide showing steps
NU 212 Foundations of Professional Nursing Practice (Clinic) - NU212ALL

Information

- Announcements
- General Questions

In my experience, when one person has a question, everyone has the same question. Here is an area where you can post questions to others in your class and help each other out.

- NMU Olson Library Help Forum
- Syllabus Winter 2016
EduCat ELIS Library Block (NU212)

This course has an embedded librarian. Listed below, you will find their name and contact information.

Name: Michael Strahan

- Message via EduCat
- Chat
- Phone: 906-227-2463
- Email

2015 Library Nursing guide
web page or journal article?
Additional Assistance

- Distance Library Services (DLS)
- Virtual office hours
- Personal on-the-fly videos (Jing)
- Public Services desk (when embedded librarian not available)
Recent History

2014 (continued)

- Embedded Librarians are purged with student rosters @ semester end. Major Impacts:
  - “Cleans up” courses where instructor no longer needed embedded librarian
  - Instructor must add embedded librarian every semester
This Academic Year

Fall 2015
- Library Block included in all new EduCat courses (part of template)

Winter 2016
- Library Block included in all (new & existing) EduCat courses
  - Major Impact: Instructors believe there is an embedded librarian in all of their courses, so they do not request one. Creates instructor education opportunity.
EduCat without ELIS Block

NMU OLSON LIBRARY

ONESEARCH

Search for books, articles, audio, video and more

Search

NMU OLSON LIBRARY

ONESEARCH

CATALOG

Find books, music, images, slides, CDs, DVDs, government documents and more

Keyword

Search

NMU OLSON LIBRARY

CATALOG

CITATION GUIDES

HELP

CITATION GUIDES

HELP

WAAL 2016 – Strahan © 2016 Northern Michigan University
EduCat without ELIS Block

- APA Style Guide
- MLA Style Guide
- Chicago Style Guide
- Turabian Style Guide

- Olson Library
- Chat
- Phone
- Email
Number of Courses by Program (25) with Embedded Faculty
160 Cumulative 2000-2012

- Nursing, 33
- Psych/PYTD, 18
- Business, 12
- ArtD, 3
- BI/CH, 6
- CAPS, 7
- CI/PoliSci, 5
- Education, 40
- EN, 10
- Speech Lang Hear, 3
- SO/SW/AN, 5
- NativeAm/Gender/HS, 5
- HPER, 6
- FYE, 2
- Geog/EnvSci, 2
- WAAL 2016 – Strahan © 2016 Northern Michigan University
Number of Courses by Program (49) with Embedded Faculty
297 Cumulative 2000-2016

Course Prefix

Number of Courses in Program

WAAL 2016 – Strahan © 2016 Northern Michigan University
Nursing Programs since 2004

LPN (2-year)
Pre-Nursing (3 semesters)
BSN (5 semesters)
DNP (3 or 4 years)
Information Literacy Program
2005-2015
# Practical Nursing Program Model

<table>
<thead>
<tr>
<th>PN 100 – Introduction to Practical Nursing</th>
<th>PN 119 – Medical/Surgical Nursing</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Library Orientation (map)</td>
<td>- Library Tour</td>
</tr>
<tr>
<td>- Library catalog to locate materials &amp; determine journal holdings.</td>
<td>- APA basics</td>
</tr>
<tr>
<td>- Database: Health &amp; Wellness Resource Center</td>
<td>- Database: CINAHL</td>
</tr>
<tr>
<td>- Introductory in-class Critical Thinking Activity</td>
<td>- Searching for library holdings &amp; retrieving materials (including online full text).</td>
</tr>
<tr>
<td></td>
<td>- Advanced in-class Critical Thinking Activity</td>
</tr>
</tbody>
</table>
## BSN Program (6 sem.) Model

<table>
<thead>
<tr>
<th>Semester 3</th>
<th>Semester 4</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NE 201 – Introduction to Nursing Concepts</strong>&lt;br&gt;(There are 3 components here.)</td>
<td><strong>Psychiatric/Mental Health Nursing</strong>&lt;br&gt;(No in-class library instruction.)</td>
</tr>
<tr>
<td><strong>Component 1</strong> completed by students before first NE 201 session (directions provided).&lt;br&gt;■Managing information overload. Work through the library research tutorial.&lt;br&gt;■Create accounts in ILLIAD (Interlibrary Loan); also CINAHL, PsycINFO, &amp; MEDLINE to save search strategies &amp; results.</td>
<td>Students independently review screen shot instructions &amp; Mediasite Live videos specific to the following databases:&lt;br&gt;PsycINFO&lt;br&gt;CINAHL&lt;br&gt;MEDLINE</td>
</tr>
<tr>
<td><strong>Component 2</strong> (First session)&lt;br&gt;■Library Tour/Orientation&lt;br&gt;■Library catalog to locate Nursing care plan materials &amp; determine journal holdings.&lt;br&gt;■Evaluating Internet Resources.</td>
<td></td>
</tr>
<tr>
<td><strong>Component 3</strong> (Second session)&lt;br&gt;■APA – in-text citing &amp; creating references.&lt;br&gt;■Databases: CINAHL &amp; MEDLINE – thesaurus &amp; keyword searching, limiting, searching for library holdings &amp; retrieving materials (including online full text).</td>
<td></td>
</tr>
<tr>
<td>Semester 5</td>
<td>Semester 6</td>
</tr>
<tr>
<td>------------</td>
<td>------------</td>
</tr>
<tr>
<td>NE 322 – Introduction to Nursing Research</td>
<td>Maternal-Infant Nursing</td>
</tr>
<tr>
<td></td>
<td>(No in-class library instruction—Apply previously-learned skills.)</td>
</tr>
<tr>
<td>■ Databases: Cochrane Library (Introduction) &amp; SocAbs (Sociological Abstracts).</td>
<td></td>
</tr>
<tr>
<td>■ Review APA specific to course assignments.</td>
<td></td>
</tr>
<tr>
<td>■ Managing information overload.</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Semester 7</th>
<th>Semester 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>NE 420 – Community Health Nursing</td>
<td>NE 431 – Management Concepts</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>■ Health Statistics (local, state, national, international) – including web sites and online data sets/banks.</td>
<td>■ Evidence Based Practice (EBP) resources &amp; assignments including advanced Cochrane.</td>
</tr>
<tr>
<td>■ Cochrane Library for finding statistics.</td>
<td>■ Students report on EBP case study in class (librarian-facilitated).</td>
</tr>
<tr>
<td>■ Review APA formatting of tables &amp; citation of personal interview.</td>
<td>■ Life after Graduation Resources.</td>
</tr>
<tr>
<td>■ Review Evaluating Internet Resources.</td>
<td></td>
</tr>
</tbody>
</table>
### MSN Family Nurse Practitioner Program (ended 2014) Model

<table>
<thead>
<tr>
<th>NE 540 – Professional Role Development</th>
<th>NE 510 – Nursing Research</th>
</tr>
</thead>
<tbody>
<tr>
<td>Library Orientation</td>
<td>Advanced APA</td>
</tr>
<tr>
<td>Library catalog to locate materials &amp; determine journal holdings.</td>
<td>Databases: Advanced CINAHL, PsycINFO, SocAbs</td>
</tr>
<tr>
<td>APA Basics</td>
<td>Databases: CINAHL, MEDLINE, Cochrane</td>
</tr>
</tbody>
</table>

As students advanced through the graduate program, library faculty taught other courses, plus provided individual assistance through completion of thesis or scholarly project.
Current LPN Info Lit Program

First semester
AH 101 Role Development - Referencing, LI + ELIS

Last semester
PN Health & Illness Concepts - APA, LI + ELIS
Zotero Research Manager integrated into BSN Program 2010 - 2014

<table>
<thead>
<tr>
<th>Why initiated</th>
<th>Why ceased</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Easily download source information</td>
<td>- Students failed to check reference entries &amp; correct capitalization, page numbers, DOI</td>
</tr>
<tr>
<td>- Organize resources</td>
<td>- Used in-text citation tool some of the time</td>
</tr>
<tr>
<td>- Improve understanding of APA basics</td>
<td>- Forgot how to use between semesters</td>
</tr>
<tr>
<td>- Accuracy of references &amp; in-text citations</td>
<td></td>
</tr>
</tbody>
</table>

WAAL 2016 – Strahan © 2016 Northern Michigan University
Pre-Nursing - 1st semester Freshman

UN 100 Nursing first year experience - basic APA (no DOI), LI + ELIS
Current BSN Info Lit Program
(Writing Across Curriculum Rev. 1/2016)

1st semester in program
NU 211 Foundations (theory) - APA Quiz, APA + LI + ELIS
NU 212 Foundations (clinic) - ELIS
Mandatory APA Workshops (1 week; evenings outside of class)
individual appointments w/students as necessary

2nd semester in program
NU 311 Nursing Research (theory) - APA + LI + ELIS
Mandatory APA Workshops (1 week; evenings outside of class)
individual appointments w/students as necessary

Note: LPN-to-BSN & RN-to-BSN students begin program here, which results in lack of skill set with APA & searching.
Current BSN Info Lit Program

(Writing Across Curriculum Rev. 1/2016)

3rd & 4th semesters
OB, Peds, Pharm, Community Health - ELIS only
Psych - LI + ELIS
individual appointments w/students as necessary

5th (last) semester
Nursing Issues - APA LI + ELIS
individual appointments w/students as necessary
Leadership and Management in Nursing -
"Life After Graduation" LI + ELIS
Current DNP Info Lit Program

Pre-req
AIS 535 - Using Scholarly Library Resources in Support of Graduate Research
(developed & taught by Library graduate faculty)
Includes teaching & using Zotero Research Manager,
a lot of APA,
CINAHL, Cochrane, PubMed, PsycINFO

All courses: ELIS + Student meetings

Every year of 4 years
LI + ELIS + APA Workshop
APA Workshops: Students

- Use Library APA guide with DOI tools
- Grouped by cohort, meets 2 weeks before due date
- Students must sign up for specific night; may trade due to work, illness, etc.
- Sessions begin @ 6pm
- 1 - 1.5 hours
- Students not allowed to “drop in” anytime
APA Workshops: Students (contd)

- Tweak MS Word options
- Attendees present their questions (modeled after med students presenting patients on rounds)
- Emphasis on peer learning w/Librarian facilitating/stepping-in as needed
- Everyone has their questions answered
Annual APA Workshops: Faculty

- Purpose: get everyone on the same page

- Review APA changes since 6th ed. Manual including APA Style Guide to Electronic References, and APAstyle blog

- Use Library APA guide with DOI tools

- APA quiz: Review part of a manuscript

- Agree on how to grade APA (e.g., location of in-text citations)
Assessment

- Researched & designed instrument (rubric)
- Winter 2012 - Identified pilot group of 3 Nursing courses requiring library research
- Thereafter, Foundations (NU211), & Research (NU311) courses assessed
- Course instructors volunteer
- Instructors apply rubric while grading papers
<table>
<thead>
<tr>
<th>Objective</th>
<th>VALUES</th>
<th>Student Score: Enter one value per objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Locate academic/scholarly sources</td>
<td>1-2</td>
<td></td>
</tr>
<tr>
<td>Sources are primarily from the popular press and/or not germane to the topic.</td>
<td>3-4</td>
<td>All sources are academic/scholarly.</td>
</tr>
<tr>
<td>Most sources are academic/scholarly.</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>Synthesizes relevant ideas from sources</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Few or no relevant ideas from sources are synthesized; personal opinion evident throughout.</td>
<td></td>
<td>All relevant ideas from sources are synthesized &amp; covered in-depth; little personal opinion appears only in conclusion</td>
</tr>
<tr>
<td>Most relevant ideas from sources are synthesized but not covered in-depth; little personal opinion.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Demonstrate how to cite sources in-text, &amp; properly reference cited works using APA style</td>
<td></td>
<td></td>
</tr>
<tr>
<td>The writer does not cite sources in-text and/or include corresponding Reference entries according to APA style.</td>
<td></td>
<td>The writer cites all sources in-text and includes all corresponding Reference entries. All formatting is correct according to APA style.</td>
</tr>
<tr>
<td>The writer cites most sources in-text and includes most corresponding Reference entries according to APA style. Some formatting problems exist or some elements are missing.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Assessment Results
NU 311 Research Course

NU 311 Trend of Averages

- Locate academic/scholarly sources
- Synthesizes relevant ideas from sources
- APA style citing in-text & references
The Future

- Increase number of participating programs & courses throughout campus
- Teach special APA workshops to LPN-to-BSN & RN-to-BSN students
- Expand assessment to track nursing students throughout program (connected to retention)
Acknowledgements
(extensive data entry & graphs)

NMU Library Student Assistants
Ms. Diane Ebendick & Mr. David Vieira
Special Acknowledgement

Mary Boulanger
Health & Life Sciences Librarian (ret.)
UW-Milwaukee Libraries

Mentor, good friend, & colleague for many years!
Questions?

Professor Michael F. Strahan
mstrahan@nmu.edu
(906) 227-2463

Northern Michigan University
Marquette, MI

Thank you!