From cornerstone to capstone: information literacy collaboration across the curriculum

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A collaborative approach for embedding information literacy
Responsibility for information literacy

“…to achieve a sustained and significant impact, information literacy cannot be addressed only by librarians or only in isolated experiences. Instead, we need a holistic approach through which invested campus partners come together and advocate for the importance of information literacy and accept shared responsibility in it.”

Levels of collaboration for information literacy

**Institutional**
- University curriculum strategy
- Design for Learning
- Graduate capabilities

**Course/Degree**
- Information literacy recognised as part of Inquiry/Research capability
- Inquiry/Research mapped across course/degree programs

**Subject**
- Information literacy embedded in subjects as part of Inquiry/Research capability
- Information literacy skill development aligned with subject ILOs, learning activities and assessment tasks
Subject level collaboration

Intended learning outcomes
- Information Literacy Framework ILOs
- Subject inquiry/research ILOs

Learning activities
- Formative self-assessment of information literacy skills
- Development of information literacy skills
- Subject specific inquiry/research activities

Assessment tasks
- Assessment of information literacy skills
- Assessment of inquiry/research skills
Inquiry/Research Toolkit

Students need support and guidance to build capacity to find, evaluate and use scholarly information. A good way to help students build these information skills is to embed online learning activities into your subject design. This Toolkit gives you adaptable resources and support to diagnose, teach and evaluate learning related to these critical information skills.

What
- Background
- What is I/R

Why
- Rationale
- Contextual model
- Supporting policy
- Impact on student learning

How
- How to use the IRQ
- How to use LibSkills
- Examples of practice
- Share your examples

Resources
- Quiz file
- LMS instructions
- LibSkills
- Assignment calculator
- Student handouts
- Assessment rubrics
- Sample assignments
- Contacts/help

lib.latrobe.edu.au/ir-toolkit
La Trobe Information Literacy Framework

- 6 Standards
- 4 levels of capability
  - Foundation
  - Consolidating
  - Proficient
  - Advanced

Intended Learning Outcomes for each Standard/Capability level
What’s in the Inquiry/Research Toolkit for Cornerstone collaboration?
Learning objects - Inquiry/Research Quiz...

1. Which one of the following references refers to a journal article?

   Marks: 1.00/1.00

   Choose one answer.


   It's difficult to tell the difference between a book, a chapter in a book, and a journal article.
Learning objects…
Examples of practice…

Dr Zali Yager - Inquiry research in Concepts of Wellbeing

Rubric to be used in EDU1CW Stage 2 to Assess Inquiry/Research Skills

<table>
<thead>
<tr>
<th>STUDENT NAME</th>
<th>FOUNDATION FOR CORNERSTONE LEVEL</th>
<th>Standard Not Met</th>
<th>Standard Met</th>
<th>Standard Exceeded</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRITERIA</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Recognizes the need for information and determines nature and extent of what is needed</td>
<td>Recognizes different information types from a reading list. Identifies key search concepts in a research topic or question.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>2. Finds needed information effectively and efficiently</td>
<td>- Recall the Library's basic facilities and processes. - Distinguishes between the different types of search tools for finding scholarly information. - Develops basic search strategies using keywords. - Identifies relevant information from search results. - Locates information within the university library system – online &amp; print.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>3. Critically evaluates information and the information-seeking process</td>
<td>Recognizes when to modify search strategy to refine results. Identifies relevant information within a source.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>4. Manages information collected and generated</td>
<td>Recognizes different elements of citations. Records all relevant citation information using a given referencing style.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>5. Applies prior and new information to construct new concepts or understanding</td>
<td>- Summarizes the main ideas from information gathered. - Explains main ideas understood from information gathered.</td>
<td>☐</td>
<td>☐</td>
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</tr>
<tr>
<td>6. Uses information with understanding and acknowledges cultural, ethical, economic, legal, and social issues in the use of information</td>
<td>Understands when to acknowledge (cite) sources to avoid plagiarism.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tbody>
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Overall Inquiry/Research Skills at Cornerstone Level Recorded are:
☐ Standard Not Met
☐ Standard Met
☐ Standard Exceeded
What’s in the Inquiry/Research Toolkit for Capstone collaboration?
Academics/Librarians questions

- Have students progressed to the proficient level of the Information Literacy Framework over their course of study?
- Are students well equipped for inquiry/research in their future professions and in lifelong learning?
- How can we measure research habits, skills and attitudes of senior students?
Capstone tool development

- Tool to measure final year students’ inquiry/research skill development
- Similar to methodology for Inquiry/Research quiz development
  - Standardised test items + test items developed by local content experts
  - Trial with Health Sciences students
Research Practices Survey
Research Practices Survey

- Administered by HEDS (Higher Education Data Sharing consortium)
- Internationally validated instrument
- Trialled with La Trobe final year Health Sciences students in May 2012
Research Practices Survey results

- An indication of La Trobe students’ achievement of information literacy learning outcomes in final year
- Completes longitudinal tracking of 2009 Health Sciences cohort (2009-2012)
- Benchmark comparison of La Trobe final year students with final year students internationally
Health Sciences information literacy skills longitudinaal study – 1st to 4th year (2009-2012)
Respondents: Health Sciences 2009-2012

<table>
<thead>
<tr>
<th>Longitudinal study, Time 1-4</th>
<th>Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. 1&lt;sup&gt;st&lt;/sup&gt; year - week 1, semester 1 (March 2009)</td>
<td>1000</td>
</tr>
<tr>
<td>2. 1&lt;sup&gt;st&lt;/sup&gt; year - semester 2 (October 2009)</td>
<td>1083</td>
</tr>
<tr>
<td>3. 2&lt;sup&gt;nd&lt;/sup&gt; year – semester 2 (September 2010)</td>
<td>483</td>
</tr>
<tr>
<td>4. 4&lt;sup&gt;th&lt;/sup&gt; year – semester 1 (May 2012)</td>
<td>80</td>
</tr>
</tbody>
</table>
Respondents: Health Sciences Discipline

- Health Information Management
- Nursing and Midwifery
- Occupational Therapy
- Orthoptics
- Physiotherapy
- Podiatry
- Prosthetics & Orthotics
- Public Health
- Social Work
- Speech Pathology
Are information literacy knowledge, skills and independence growing over time?
Conceptual understanding of peer-reviewed scholarly journals

- **1st year - Semester 1**: 4%
- **1st year - Semester 2**: 14%
- **2nd year – Semester 2**: 83%
- **4th year – Semester 1**: 92%

*Correct response percentage*
Understanding when to cite sources

- 1st year - Semester 1: 28%
- 1st year - Semester 2: 59%
- 2nd year - Semester 2: 74%
- 4th year - Semester 1: 83%

Correct response percentage
Knowing how to find the highest level of academic evidence (scholarly articles)

Correct response percentage

- 2nd year – Semester 2: 84%
- 4th year – Semester 1: 94%
Importance of identifying alternative terms and synonyms

Correct response percentage

2nd year – Semester 2

4th year – Semester 1

44%

86%
Understanding Boolean operators

Correct response percentage

- 1st year - Semester 1: 38%
- 1st year - Semester 2: 48%
- 2nd year - Semester 2: 56%
- 4th year - Semester 1: 46%
Understanding truncation

Correct response percentage

- 2nd year – Semester 2: 81%
- 4th year – Semester 1: 66%
Recognising journal article citations

- 1st year - Semester 1: 23%
- 1st year - Semester 2: 58%
- 2nd year - Semester 2: 83%
- 4th year - Semester 1: 76%
How do La Trobe Health Sciences final year students compare internationally in 2012?
Benchmark analysis

- Comparison of La Trobe students with 12 international cohorts
- Six benchmark themes
- Score out of 100
Use of academic sources

Utilisation of sources

- All La Trobe Senior Students - Mean Score: 73.49
- All Other Senior Students - Mean Score: 69.08
Search techniques and strategies

Competence in applying research skills

- All La Trobe Senior Students: Mean Score = 69.73
- All Other Senior Students: Mean Score = 65.96
Enjoyment of research

Enjoyment of research

All La Trobe Senior Students - Mean Score: 46.5
All Other Senior Students - Mean Score: 44.26
Research independence

Consultation with instructors and librarians

All La Trobe Senior Students - Mean Score: 40.27
All Other Senior Students - Mean Score: 48.17
Outcomes of collaborative practice
Librarian/academic collaboration

- Holistic and coordinated information literacy development at institutional, course and subject levels
- Enhanced teaching practice – resources for embedding information literacy into curriculum design
- Improved student learning outcomes
- Shared understanding of student learning from cornerstone to capstone
Next Steps:

1) Measure information literacy learning outcomes and final students across all faculties.

2) Do students have sufficient information skills to enable them to engage in inquiry/research beyond the academic environment?
Thank you