History of The University of Toledo’s Information Literacy Program

In support of PK-16 state initiatives and aligning information literacy for direct-from high school freshmen with the information literacy competencies identified in the Ohio Department of Education’s K-12 Technology Academic Content standards\(^1\), for fall 2005, the direct from high school enrolled at UT in freshmen orientation sections are being pre-tested on vocabulary and concept recognition\(^2\) and post-tested\(^3\) after information literacy instruction against identified core competencies for academic success during the first semester of their post-secondary education. Recognizing the traditional course load direct-from-high school students take during their first semester, successive pre- and post-assessments are being given in PSYC 1010 and ENG 1100/1110. Two additional pilot projects using the above linked FYI section to General Education sections are being conducted with the direct from high school students in the College of Business Administration, FYI QUEST and the Career and Academic Planning (CAP) Living Learning Community. This work forms the basis for the design and delivery of information literacy instruction for the freshmen students in both their FYI sections and general education sections.

The initial reviews of the survey results contradicts the popularly held notion that direct from high school arrive on campus with solid technology, information and computer skills. While direct-from-high school students own computers and are comfortable with technology, ownership does not translate into competencies. Direct-from-high school students are comfortable with accessing a search engine and sending/receiving email but they are not prepared for the web-based learning environment they are confronted with on a university campus. From logons and usernames to creation of an effective search strategy using Boolean operations and/or truncation, direct-from-high school students during their first semester on campus either do not have the skills or can not transfer their technology, computer and information skills to their new environment. For library instruction, this translates into designing and developing instruction not based on Library of Congress call numbers and introduction to discipline specific research databases but a very basic introduction to an academic research library, the evaluation of web resources, hands-on instruction to distinguish between a magazine and a scholarly publication and the use of course reserves. Direct-from-high school students must also be introduced to the basic differences between an academic library and their high school or public library.

The pre-test of the direct-from-high school students’ recognition of standard vocabulary terms and basic search and access concepts supported the thesis that students needed a more basic approach to academic libraries. This movement to “start at the

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\(^2\) http://www.utoledo.edu/library/infolit/docs/fyi_pretest_2006_writeable.pdf

\(^3\) http://tinyurl.com/ut1000
beginning” provided the opportunity to design and develop a graduated course of library instruction that aligns the first year information orientation with composition and ripples out to align with the most popular general education courses, e.g. Introduction to Psychology, History of Jazz, etc. In addition, the introduction of a post-test after the class meeting affords the librarian the opportunity to examine what the student has learned during the actual library instruction session. The post-test provides a series of true-false, short answer, fill in the blank, multiple choice and open-ended questions that are completed by the student. A separate evaluation4 of the librarians’ teaching and presentation skills is completed by the course instructor.

This focus on student learning has changed the content of what is provided during a library instruction session. It has created a greater focus on identifying the competencies students must possess as they learn the research process in an academic library. It has also created more consistent classroom content being taught across the library by different librarians. Finally, it has provided an opportunity to create a series of successive modules of library instruction where students learn information literacy competencies as they move through the university’s lower division curriculum.

**Initial Core Competencies:**

- Recognition of the difference between free Internet and fee-based Internet access
- Evaluation of web retrieved information using the criteria of authority, accuracy, objectivity, currency, and coverage.
- Identification of role of academic library in relationship to public and school libraries.
  - Large, complex research environment.
  - Focus on discipline literature.
  - Use of scholarly publications versus magazines or trade publications.
  - Primary sources
  - Nonfiction materials versus fiction.
- Role of academic honesty and the ethical use of information.
- Demonstration of web-based information retrieval using university’s technology.
- Identification of library’s home page.
- Distinguish between keyword and subject searching.
- Recognition of information need.
- Creation of effective search strategy aligned with efficient information retrieval.
- Recognition of Library of Congress classification as basis for the organization and retrieval of academic information.
- Academic support services provided by an academic library:
  - Assistance
  - Individual or group study
  - Laptop lending
  - University academic support services, e.g. tutoring, Writing Center, computer labs

4 [http://libguides.utoledo.edu/data/files//36141/Instructor%20Evalaution%20Form.doc](http://libguides.utoledo.edu/data/files//36141/Instructor%20Evalaution%20Form.doc)
Information Literacy

In AY 2005/2006, a total of 374 information literacy/library instruction classes were taught. The direct-from-high school students enrolled at UT in freshman orientation sections continue to be being pre-tested on vocabulary and concept recognition and post-tested after information literacy instruction against identified core competencies for academic success during the first semester of their post-secondary education. This testing supports PK-16 state initiatives and aligns information literacy for direct-from-high school freshmen with the information literacy competencies identified in the Ohio Department of Education’s K-12 Technology and Library5 Academic Content standards.

Composition Tutorial

Students using the tutorial6 can learn at their own pace and assess writing skills acquired as they develop and hone their research competencies.

Information and Data Collected

Recognizing the traditional course load direct-from-high school students take during their first semester, successive pre- and post-assessments are being given in PSY 1010, ENGL 1100/1110, 1130, 1140, 1150, 2950, and 2960. Additional projects using the above linked FYI section to General Education sections are being conducted with the direct-from-high school students in the College of Business Administration (courses BUAD 1000, 2000, and 3000), all sections of FYI QUEST and the Career and Academic Planning (CAP) and Arts Living Learning Communities.

The tutorial has four separate instructional modules that teach library research skills. Each module has a quiz component to assess student progress. This interactive quiz allot's a percentage value to each question answered and helps students evaluate and assess their skills after completing each instructional module. Students using the tutorial can learn at their own pace and assess skills acquired as they develop and hone their research competencies.

Conclusions

This work forms the basis for the design and delivery of information literacy instruction for the freshman students in both their FYI sections and General Education sections. More courses and disciplines have been added since the initiation of these assessment activities. Post-test results continue to contradict the popularly held notion that direct-from-high school students arrive on campus with solid


6 http://www.utoledo.edu/library/help/tutorials/comp/index.htm
technology, information, and computer skills. Although direct-from-high school
students own computers and are comfortable with technology, ownership does not
translate into competencies. Direct-from-high school students are comfortable with
accessing a search engine and sending/receiving e-mail, but they are not prepared for
the Web-based learning environment they are confronted with on a university
campus. Direct-from-high school students during their first semester on campus
either do not have the skills or can not transfer their technology, computer, and
information skills to their new environment. In addition, the introduction of a post-test
after the class meeting affords the librarian an opportunity to examine what the student
has learned during the actual library instruction session. The post-test provides a series of
true-false, short answer, fill in the blank, multiple choice, and open-ended questions that
are completed by the student. A separate evaluation of the librarians’ teaching and
presentation skills is completed by the course instructor.

This focus on student learning has changed the content of what is provided during
a library instruction session. It has created a greater focus on identifying the
competencies students must possess as they learn the research process. It has also created
more consistent classroom content being taught across the library by different librarians.
Finally, it has provided an opportunity to create a series of successive modules of library
instruction where students learn information literacy competencies as they move through
the University’s lower division curriculum. Working with Latino, Afro-American,
International students and student-athletes, the information literacy librarians participate
in student events to promote library services, enhance study and research skills, and
provide point-of contact interfaces. Additionally, information literacy librarians serve on
committees that plan the Latino Youth Summit and Black History month activities.

Information Literacy faculty members will continue to work with teaching faculty
members to enhance, improve, and expand classroom offerings. They will increase
the number of sessions offered and the number of classes, organizations, and events
they attend.

Academic Year 2006-2007

Information Literacy

In AY 2006/2007, a total of 398 information literacy/library instruction classes
were taught. The majority of the students learning objectives within the University
Libraries are assessed within the context of our Information Literacy / Library Instruction
programs. Program learning objectives have been developed based upon the Information
Literacy Competency Standards of the Association of College & Research Libraries
(ACRL)\(^7\) and the Ohio Academic Content Standards for Libraries. The learning
objectives are sequenced within the Information Literacy Program to build upon previous

\(^7\) [http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm](http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm)
learning objectives. For example, the following represents the Student Learning Outcomes for the Orientation\textsuperscript{8} > Composition I\textsuperscript{9} > Composition II\textsuperscript{10} sequence.

**An Orientation/FYI Information Literate student**

- Distinguishes between an academic research library and a school or public library.
- Recognizes the role of information for academic success.
- Navigates the UT home page to access university information which supports academic success.
- Defines terminology associated with web-based information retrieval.
- Applies established criteria to evaluate information retrieved through the Web.
- Recognizes personal responsibility for the ethical use of information.
- Identifies library services and resources which support academic success.
- Articulates various approaches available in Carlson Library when seeking assistance with information needs.

**An ENGL 1100-1110 Information Literate student:**

- Distinguishes between free versus fee-based information.
- Defines a specific information need.
- Constructs a search strategy relevant to the defined information need.
- Identifies a single subject database.
- Performs keyword(s) searches using Boolean Operators.
- Retrieves print and full text articles through a research database.
- Distinguishes between popular magazine and academic/scholarly journal.
- Demonstrates the ethical use of information.
- Recognizes additional areas of research assistance.

**An ENGL 1130-1150 & ENGL 2950-2960 Information Literate student:**

- Recognizes the limitations of search engines and free Internet resources.
- Constructs an advanced search strategy that matches a specific information need.
  - Identifies several appropriate subject databases (e.g. PsychINFO, Business and Company Resource Center, AccuNet/AP Multimedia Achieve ERIC, etc.)
  - Performs comprehensive keyword(s) searches that use synonyms, Boolean operators, truncation, etc.
  - Recognizes and uses appropriate LC Subject Headings as well as bibliographies, etc., to locate and incorporate additional

\textsuperscript{8} http://www.utoledo.edu/library/infolit/docs/First-Year_Information_Carlson.pdf

\textsuperscript{9} http://www.utoledo.edu/library/infolit/docs/FINAL_ENGL1100-1110.pdf

\textsuperscript{10} http://www.utoledo.edu/library/infolit/docs/FINAL_ENGL1130-1150.pdf
Integrates several diverse print and electronic sources of information (e.g. books, journals, videos, etc.) into their research projects

- Assesses the worth of retrieved information and considers revising the search strategy
- Understands the profession/academic language associated with their discipline and/or topic

In upper level undergraduate courses and graduate courses on the Main campus, the libraries’ student learning objectives are often tied to the course content, and successfully completing research assignments is evidence of achieving these objectives.

**Information and Data Collected**

During 2006/2007, undergraduate students were administered successive pre- and post-tests in the following courses, whenever their class met with librarian instructors:

- Orientation (Including QUEST & TECHS programs)
- Composition I (ENGL 1100 & 1110)
- Composition II (ENGL 1130, 1140, 1150, 2950, & 2960)
- Other General Education (PSY 1010)

The pre-test for Orientation/FYI sections consisted of a vocabulary recognition exercise, while the pre-tests for Comp I & II were based on the learning objectives of Orientation and Comp I listed above. Each of the post-tests reflects the learning objectives for the particular level.

**Conclusions**

Our program evaluation based on these assessment tools confirms the conclusions of the previous year. Students arrive at college with an inadequate level of technology and information literacy skills for achieving learning objectives. This is evidenced by either a lack of recognition of terms associated with libraries and research on the Orientation Pre-test, and/or by a lack proper application of ‘recognized’ terms in the post-test. Based on the previous year’s assessment, the sequencing of learning objectives was realigned. This resulted in fewer and more basic learning objectives for the orientation class, and meant that previous concepts were incorporated into successive learning opportunities, and therefore objectives were repeated across multiple levels. For example, the coordinated level-to-level post- and pre-testing revealed that for some students there was an inability to transfer skills from course to course, and therefore learning objectives taught at the Composition I level (for example) would need to be re-introduced and built upon at the Composition II level.

Based upon these conclusions, as well as ongoing assessment from previous years, the following changes were implemented in AY 2007-2008: Pre-testing was dropped from the assessment program, as very little new information was acquired from the pre-test, and the administration of the pre-test in a time-limited, single meeting.

Submitted by Thomas Atwood, Coordinator of Information Literacy & Library Instruction June 2010
session with a class meant that less time was available for teaching the competencies we were testing. A survey of FYI Instructors and College Coordinators was conducted for the purposes of overall program assessment of our information literacy offerings for orientation classes. Center for Teaching and Learning Student Observers\textsuperscript{11} were used to assess the teaching of Information Literacy librarians in Carlson Library. The expansion of services to students in Distance Learning and Web Assisted courses may necessitate separate assessment in forthcoming years.

**Academic year 2007-2008**

**Information Literacy**

During AY 2007/2008, several undergraduate students were administered post-tests in the following courses, whenever their class met with librarian instructors:

- Orientation (Including QUEST & TECHS programs)
- Composition I (ENGL 1100 & 1110)
- Composition II (ENGL 1130, 1140, 1150, 2950, & 2960)

Each of the post-tests reflects the learning objectives for the particular level. While much of the post-tests are used to evaluate the content of the session and aspects of the presentation, two important assessment questions are included: ‘Name one additional thing you would like to learn about the library or library services’ and ‘Write down one new thing you learned during this presentation.’ The responses to these questions are an indicator of student learning and promote critical thinking and life-long learning.

**Information and Data Collected**

In AY 2007/2008, a total of 459 information literacy/library instruction classes were taught reaching 8642 students campus wide. Several classes attended more than one instructional session. On average, classes were 1 hour in length and had an attendance of 26 students. 87.6 percent of classes taught were at the undergraduate level.

50 Orientation courses (UC, BUAD, ARS, EDU, HSHS, TECHS) were administered post-tests. 72.7 percent scored 90 percent or higher on the post-test. 89.3 percent scored 80 percent or higher.

86 Composition courses (ENGL 1100, 1110, 1130, etc.) were administered post-tests. 46.7 percent scored 90 percent or higher on the post-test. 74.8 percent scored 80 percent or higher.

\textsuperscript{11} \url{http://libguides.utoledo.edu/data/files/36142/StudentObserverForm.pdf}
Conclusions

Our continuing program evaluation based on these assessment tools confirms the conclusions of the previous year. Students arrive at college with an inadequate level of technology and information literacy skills for achieving learning objectives. This is evidenced by a lack proper application of ‘recognized’ terms in the post-test and an increase in demand for information literacy/library instruction classes. Based upon the conclusions reached above, as well as ongoing assessment from previous years, the following changes were implemented in AY 2008/2009:

- A survey in Fall 2008 of FYI Instructors and College Coordinators was conducted for the purposes of overall program assessment of our information literacy offerings for orientation classes. Based upon the results, the program has increased its marketing efforts, attempted to offer more FYI events, and created out-of-class activities and assignments for several undergraduate courses. This included an increased presence in SKILS courses, assistance at both the Orientation and Composition level with e-folio, and partnering with the Learning Enhancement Center (LEC) and Office of Student Involvement in various activities.

- Center for Teaching and Learning Student Observers continue to help assess the teaching effectiveness of Information Literacy librarians at Carlson Library.

- The Director of Main Campus Libraries initiated a weekly mini-poll on the library website to directly assess student’s use, awareness of, and perceptions of library services. One of these questions specifically pertained to Information Literacy/Library Instruction.12

- Additional outreach is being provided to Transfer, Toledo Early College High School (TECHS), International, American Language Institute (ALI), African-American, Latino, and local area high school students.

- Lecture capture modules are currently being developed for eLibraries/Distance Learning courses.

- Additional Student Satisfaction Surveys are being used by library instructors

- Several Alpha Kappa Alpha workshops are currently being taught to support their Undergraduate Signature Program: Economic Educational Advancement through Technology

12 http://libguides.utoledo.edu/data/files//36139/Instruction%20QOTW%20Dec.%202008.doc
Information Literacy '04-'10 Assessment Report

Academic Year 2008-2009

Information Literacy

As with previous years, during AY 2008/2009, several undergraduate students were administered post-tests in the following courses, whenever their class met with librarian instructors:

- Orientation (Including QUEST & TECHS programs)
- Composition I (ENGL 1100 & 1110)
- Composition II (ENGL 1130, 1140, 1150, 2950, & 2960)

Each of the post-tests reflects the learning objectives for the particular level. Post test data continues to reaffirm previous assumptions. In response to the growing number of courses requesting library instruction, three full-time Information Literacy Lecturers were hired in summer 2008.

Information and Data Collected

In AY 2008/2009, a total of 518 information literacy/library instruction classes were taught reaching 11,087 students campus wide. Several classes attended more than one instructional session. On average, classes were 1 hour in length and had an attendance of 20 students.

Conclusions

Based upon the conclusions reached above, as well as ongoing assessment from previous years, the following changes were implemented in AY 2009/2010:

- Center for Teaching and Learning Student Observers continue to help assess the teaching effectiveness of Information Literacy librarians at Carlson Library.
- Additional outreach is currently being provided to Transfer, Toledo Early College High School (TECHS), International, American Language Institute (ALI), African-American, Latino, and local area high school and transfer students.
- Lecture capture modules (Captiva, Camtasia, etc.) continue to be developed for eLibraries/Distance Learning courses.
- Active presence in developing Beginning the Academic Journey (BAJ) online modules for AY 2010-2011 that emphasize library access and instruction.
- Several Alpha Kappa Alpha workshops are currently being taught to support their Undergraduate Signature Program: Economic Educational Advancement through Technology.

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- A partnership with the Learning Enhancement Center has been formed and information literacy workshops are being offered at the LEC’s annual Olympiad, a week of fun, interactive, learning workshops open to all UT students at no charge.

- Library instructors have created customized LibGuides for selected courses

Academic Year 2009-2010

Information and Data Collected

In AY 2009/2010, a total of 504 information literacy/library instruction classes were taught reaching 10,468 students campus wide. Several classes attended more than one instructional session. On average, classes were 1 hour in length and had an attendance of 23 students. While some classes continue to be post tested online, several course instructors have now integrated more active library assignments into their syllabi and schedule several additional library instruction sessions. In many cases, assessment is now determined by the successful completion of class assignments.

Conclusions

As part of the university’s student-centered curriculum, University Libraries’ Information Literacy initiative supports the Libraries' commitment to promote learning and access through user education in information literacy. Multidisciplinary and client-centered, the Libraries’ community-driven approach facilitates student growth to afford them full meaningful access to resources and the acquisitions of skills needed for confident decision making and life long learning. In an effort to build a baseline of student input as it relates to the quality provided through the information literacy program at UT, there are several processes that are currently in place.

- Standardized paper and electronic pre- and post-tests (evaluated through written response, multiple choice, fill in the blank, open ended questions, etc.) have been consistently used to assess student learning and to gauge student interest. In addition, these instruments provide both course and library instructors with data to mutually create attainable learning objectives for each session within the time allotted as well as provide indicators of student learning.

- Library instructors each semester have used trained neutral student observers to provide feedback about a particular activity or problem in the class, conduct interviews with students to assess how well they are learning, assist in teacher reflection, and assess if the goals of the session have been achieved.

13 http://libguides.utoledo.edu/

14 http://libguides.utoledo.edu/content.php?pid=58073&sid=425157
Course instructors are also surveyed each semester about the effectiveness of the library instructional sessions to determine whether the mutual goals and objectives developed with library instructors have been achieved. This information is examined by library instructors, the program coordinator, as well as the department chair.

Continual in-house use of assessment involves percentages of accuracy, success, and student understanding. The results are used to further develop learning objectives and realign within the Ohio Department of Education’s K-12 Technology and Library Academic Content standards and Information Literacy Competency Standards of the Association of College & Research Libraries (ACRL). All library instructors, including the program coordinator work together to examine pre- and post-test data, program benchmarks, course outcomes and learning objectives yearly, to ensure that students are being consistently introduced on how to effectively and efficiently access current, accurate, and authoritative information.