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# Subject Specific Information Literacy Curriculum and Assessment

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## ABSTRACT

Academic libraries have been changing the traditional instructional framework of library instruction teaching modules to information literacy teaching modules. National standards for information literacy increased the possibility to unify such efforts throughout the country and clarify for librarians, administrators, and faculty the desired student learning outcomes. This paper presents findings of a quantitative research study developed to provide documentation for a regional accrediting body, college administration, and faculty on the efficacy of a subject specific information literacy curriculum and assessment instrument.

The study took place within a seminary and began with an initial needs assessment. A previously developed instrument, *B-TILED*, which had been through a rigorous process of reliability and validity testing was applied to conduct the needs assessment. The findings of the needs assessment indicated a requirement for intervention which led to the development and implementation of a formal course of instruction in information literacy.

The course was developed and taught by the researcher in the fall of 2010. All incoming 1<sup>st</sup> year students were required to take, complete, and pass a one-unit class in information literacy. In order to assess the effectiveness of the course, and to provide supportive documented data to the accrediting body, pretests and posttests were administered. The instrument used, *B-TILED*, was the same as that used in the needs assessment study.

## Subject Specific Information Literacy Curriculum

The Association of College and Research Libraries (ACRL) defines information literacy as a set of abilities requiring individuals to "recognize when information is needed, and have the ability to locate, evaluate and use effectively the needed information" (ACRL, 2000). Changes in educational standards, along with a concerted effort by librarians and educators over the past decade, have resulted in the implementation of information literacy skills courses throughout the academic environment. Students entering the realm of higher education are frequently required to complete a specific course of information literacy. Courses in information literacy are offered in a variety of formats including:

library orientation presentations, on-line graded or pass/fail completion modules, and unit courses embedded within the general education requirement of a school.

## Research Problem

This study developed out of a need for subject specialty information literacy training within the unique undergraduate seminary setting found within The Salvation Army College for Officer Training (CFOT). The two year course of undergraduate study at the CFOT required graduating students to be competent as ministers and also as officers representing The Salvation Army. Students successfully completing the program received an Associate Arts degree in Christian Ministries, a program of study that was regionally accredited by the Western Association of Schools and College (WASC). Students were received into the program from a demographically diverse palate of cultures, social experiences, generations, and education achievements. Information literacy training was a small component embedded within library orientation during the first week of school orientation.

The explosion of information readily available on the Internet, the variety of information retrieval resources, and the diversity among students in their ability to define, access and critically evaluate information, indicated a need for a more intensive program offering in information literacy. Administration and faculty supported the researcher in the development, implementation, and assessment of a subject specific information literacy curriculum. The research question that guided the study was as follows: Did the Information Literacy Skills course taught at the CFOT in the fall of 2010 prove effective in improving the student's information literacy skills?

Peer Reviewed

## Problem Background

During the 2007 accreditation review one of the areas addressed was the need for increased accountability across the curriculum, a process that required continual assessment. The topic of information literacy across the curriculum and the role of the library in providing support services in this area were explored by library personnel.

Specific attention was given to how the CFOT could best meet information literacy standards as proscribed by the Association of College and Research Libraries (ACRL). There were five information literacy standards generated by the ACRL. The standards were applied by accrediting bodies to determine how well an institution met the needs of students in developing lifelong learners, as indicated in assessment of information literacy skills. The five ACRL standards briefly stated were:

**Standard One:** The information literate student determines the nature and extent of the information needed.

**Standard Two:** The information literate student accesses needed information effectively and efficiently.

**Standard Three:** The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.

**Standard Four:** The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.

**Standard Five:** The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.

## Research Purpose

Establishing a strong foundation of information literacy skills required a reliable assessment tool and supportive curriculum. Research resulted in the development of a subject specific information literacy curriculum and the use of a specific assessment tool that would adapt to a multiple of learning scenarios. When both curriculum and assessment were effectively combined information literacy skill acquisition became part of the individual's lifelong portfolio.

WASC identified information literacy as one of the "core learning abilities and competencies" along with written and oral communication, quantitative skills, and critical thinking (WASC, 2001, Standard 2.2). In standard 2.3, WASC required that institutions clearly articulate expectations about student learning in library use and information resources. Evidence of student learning was expected to be observed through the syllabi and curriculum.

According to Andy Crouch (2008):

The academic fallacy is that once you have understood something, analyzed and critiqued it, you have changed it. But academic libraries are full of brilliant analyses of every facet of human culture that have made no difference at all in the world beyond the stacks. (p.69)

Effective development of information literate persons did not occur in a one- or two-hour isolated library orientation workshop. Information literacy was a life skill that could make significant impact on the achievement levels of an individual personally, in the work environment, and in the social environment. The skills required for the development of an information literate person should be taught and developed within the framework of specific courses and reinforced and built upon throughout the curriculum.

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A standardized information literacy skills (ILS) assessment tool was modified and developed with subject emphasis on a seminary context. An initial needs assessment study of student information literacy skills took place in the spring of 2010 prior to the development of a formalized course of instruction. The findings were applied in developing and implementing an ILS course in the fall of 2010 that was required of all incoming students. The ILS assessment tool was administered at the beginning of the ILS course and at the completion of the ILS course as a pretest and posttest to assess the effectiveness of the ILS program in developing information literacy skills among students.

### **Research Significance**

Within the CFOT no prior formal studies or assessments had been administered in information literacy skills among students. The instrument applied to assess students was developed using the ACRL standards, Educational Testing Services (ETS), and the *Biele Test of Information Literacy for Education (B-TILED)*.

Current practices at the college provided no evidentiary assessment and no formal oversight that practices stated in syllabi were effective in creating information literate students. The needs assessment findings demonstrated a necessity for the development and implementation of a formal Information Literacy course for all incoming students. Findings provided support for the requirement to integrate information literacy skills uniformly and consistently in all courses across the curriculum.

The research provided an understanding and appreciation of a broader definition of information literacy outside the realm of library or Information Technology skills. Library skills focused on the location and access of information. Being Information Technology literate focused on the mechanistic skills needed to acquire certain forms of information. Information literacy combined both aspects and went beyond, seeking to develop critical

thinkers able to evaluate, discern, synthesize, and grow a knowledge database as lifelong learners.

The study resulted in several outcomes. One outcome was the creation and implementation of a formal program of instruction to assist in the development of information literate officers. The findings provided documented data in information literacy skills, demonstrating to WASC that self-assessment continued to be an ongoing and evolving process at the CFOT. Administration, curriculum, students, faculty, and staff were supportive of the research process and the research findings, recognizing the significance of information literacy as it pertained to the student while at the CFOT and later in the field.

The study was significant in the academic arena in that the instrument and findings were replicable in assessing information literacy in similar seminary settings. Test findings could be used to identify the progress of individual students or interpreted as group values. The resultant data was useful for providing an outcomes-based quantitative measure for institutional or accreditation purposes. Findings could be used in developing curriculum and in providing benchmarks of seminary students' information literacy skills levels. Assessment could assist in the integration of information literacy instruction throughout the curriculum, in the development of student learning outcomes (SLO), and in enabling instructors to teach and actively demonstrate information literacy skills to students.

The subject of information literacy was continually developing both in theory and in practice. Defining and shaping instruments, analyzing findings in a variety of educational settings added to a body of growing knowledge in the field. The findings of this study would be of interest to faculty involved in information literacy programs, instructors of seminary students, seminary administrators, and program review personnel.

## Research Strategy

Hypotheses developed to assess the efficacy of the course to improve information literacy skills of students were formulated on the standards established by the ACRL. The ACRL standards were based on the premise that information literacy provided the foundation for lifelong learning and as such was found in all disciplines and in all learning environments. Effective learners mastered content and were able to extend their investigations, becoming more self-directed and taking more control over their learning.

The hypothesis related to only the first-year students at the CFOT in 2010. For research on the information literacy skills (ILS) of students at the CFOT the following null hypotheses were formulated:

**Hypothesis 1 (H<sub>0</sub>1):** There was not a statistically significant difference between pretest and posttest scores of first-year students' information literacy skill of ability to determine the nature and extent of information needed.

**Hypothesis 2 (H<sub>0</sub>2):** There was not a statistically significant difference between pretest and posttest scores of first-year students' information literacy skill of accessing needed information effectively and efficiently.

**Hypothesis 3 (H<sub>0</sub>3):** There was not a statistically significant difference between pretest and posttest scores of first-year students' information literacy skill of critically evaluating and incorporating information into a personal knowledge base and value system.

**Hypothesis 4 (H<sub>0</sub>4):** There was not a statistically significant difference between pretest and posttest scores of first-year students' information literacy skill of accessing and using information ethically and legally.

**Hypothesis 5 (H<sub>0</sub>5):** There was not a statistically significant difference between pretest and posttest scores of first-year students when examining the composite of information literacy skills.

## Research Methodology

Research was centered on 26-item level cognitive test results provided by four of the five ACRL standards for information literacy. The four standards providing cognitive findings were: (a) Standard 1: the information literate student determined the nature and extent of the information needed, (b) Standard 2: the information literate student accessed needed information effectively and efficiently, (c) Standard 3: the information literate student evaluated information and its sources critically and incorporated selected information into his or her knowledge base and value system, and (d) Standard 5: the information literate student understood many of the economic, legal, and social issues surrounding the use of information and accessed and used information ethically and legally.

The instrument was designed specifically to test knowledge as provided in Standards 1, 2, 3, and 5. Standard 4 was not included in the hypothesis since it addressed the use of information literacy skills. Standard 4 findings were evaluated using a Likert type scale and presented in modality tables.

The independent variable for this study was the Information Literacy course. The dependent variable was the pretest and posttest scores. The underlying assumption of this study was that a course in Information Literacy skills would make a difference in the skills of the cadet. The pretest and posttest scores, as dependent variables, demonstrated the degree of change after the treatment of the Information Literacy course.

This research administered one instrument, the *Biele Test of Information Literacy for Education (B-Tiled)* developed by Penny M. Beile O'Neil (see Appendix A). Permission was obtained to use and modify the instrument for this research. The instrument was first located on the Educational Testing Service web site. The site provided access to the developer of the test allowing the opportunity for direct correspondence with Dr. Penny Beile O'Neil. Discussion took place as to the development, use, and modification of the instrument

to work within a seminary. Modifications that occurred were cosmetic in layout. The five ACRL standards were included in the instrument and identified with a specific cluster of questions. Demographic data was identified as such and was placed at the end of the instrument. Subject-specific questions were customized to accommodate the databases that were available and used at the CFOT. The test was originally developed and designed to develop and validate the information literacy skill levels of education students. Test items were developed so that they could be adapted to the variety of databases offered through individual libraries. Use of the instrument and resultant documentation assisted in providing evidence to accrediting bodies and professional associations of the effectiveness of information literacy within the academic environment (O'Neill, 2005).

In the development of the original instrument it was recognized that a frequent challenge for standardized assessments of information literacy within an academic environment was the range of databases within an institution. Subject specialty, need, and financial considerations vary among institutions. In order to address database variance the *B-TILED* was developed and test items written that could be adapted and used within any institution without affecting the integrity of the test (O'Neil, 2005). The test items developed in the *B-TILED* were readily adaptable to seminary education, including accommodation to subject-specific religious databases.

The *B-TILED* provided an objective, criterion-referenced assessment. Each test item was operationally defined in order to be measurable. The test was subjected to numerous validity procedures in order to establish how well the instrument measured what it intended to measure. In developing criterion-referenced assessments reliability was analyzed as it related to the ability to differentiate among knowledge levels. Procedures were put in place to support

evidence of reliability by testing for internal consistency and stability. The test was originally developed in conjunction with Project SAILS (Standard Assessment of Information Literacy Skills) at Kent State University in 2004 (O'Neil, 2005).

Applying the *B-TILED* bank of questions, an *Information Literacy Skills* (ILS) test was designed for the CFOT with a total of 42 items (see Appendix B). The composition of the test included 26 test items that evaluated cognitive skills, items 1-21, and 30-34; seven items that provided demographic data, items 38-42; and 11 items that provided self-assessment data, items 22-29, and 35-37.

For this research WINKS, a statistical data analysis software program used for business, science, marketing, and education, was applied for analysis of findings. The data obtained was a mixture of both parametric and nonparametric. The 26 cognitive test items provided parametric ratio data. Descriptive items provided both nonparametric nominal and ordinal data.

Statistical data analysis resulted in a decision to accept or reject each null hypothesis. The research tested each hypothesis for statistical significance at the .05 level. A correlation was considered significant, when there was a p-value of .05 or less. In such instances, when the p-value was .05 or less, the hypothesis of no difference was rejected.

Two procedures, the Paired t-Test and the Wilcoxon Test were used. The paired t-Test was applied to compare gain and/or loss when examining pretest and posttest scores. The Wilcoxon Test procedure was applied when the normality assumption, required for the paired t-Test, was not met. (see Table 1)

**Table 1. Statistical Procedures Used to Test Hypotheses**

Hypotheses	Procedure
H <sub>0</sub> 1	Paired t-Test/Wilcoxon
H <sub>0</sub> 2	Paired t-Test/Wilcoxon
H <sub>0</sub> 3	Paired t-Test/Wilcoxon
H <sub>0</sub> 4	Paired t-Test/Wilcoxon
H <sub>0</sub> 5	Paired t-Test/Wilcoxon

**Research Findings**

Demographic data indicated a disparity in gender representation among the student population. The greater proportion of the student body was comprised of women, 24 or 57.14%, in contrast to men, 18 or 42.86%. English was the primary language among the majority of students, 41 or 97.62%, and the dominant ethnic group represented was white, 27 or 64.29%.

Education level completed by many students was high school, 16 or 38.10%. A large number of students, 16 or 38.10% had taken some college courses prior to enrollment at the CFOT.

Findings differed in student self-ratings of library skills between the pretest and posttest surveys. Pretest self-rating findings indicated that nine or 21.43% of students had good library data base skills. Posttest self-rating findings indicated that 25 or 59.53% had good library data base skills. Self-rating suggested an increase in confidence levels in the student’s ability to use a library data base.

Findings differed in student self-rating of Internet skills between the pretest and posttest surveys. Pretest self-rating findings indicated that 11 or 26.19% of students rated their Internet skills as good. Posttest self-rating findings indicated that 22 or 52.38% rated their Internet skills as good. Self-rating findings suggested an increase in confidence levels in the students’ Internet skills.

ACRL standard four, the information literate student, individually or as a member of a group, used information to accomplish a specific purpose, provided descriptive statistics for each of eight test items. Posttest results were assessed on the effectiveness of embedding information literacy skills across the curriculum at the College for Officer Training in the first quarter of student education.

The overall findings for ACRL standard four indicated that the students were provided a range of opportunities to access and use a variety of information resources in the fall quarter. Student response suggested a high level of interaction and participation with traditional information resources, electronic media, and contemporary technology. The findings suggest that the curriculum at the CFOT was actively embedding information literacy skills within student courses as supported by the integration of technology and the use of a range of information resources in required student assignments.

Five hypotheses were analyzed for statistical significance. Parametric data used for each hypothesis was tested for normality in determining the selection of the correct test procedure. The five research hypotheses, H<sub>a</sub>1, H<sub>a</sub>2, H<sub>a</sub>3, H<sub>a</sub>4, and H<sub>a</sub>5 were supported. The results of normality testing indicated that the data in all five hypotheses were not normally distributed. Using the Andrews-Standridge decision model, the appropriate test for one group (first-year students) and two measures (pretest and posttest) of nonparametric interval data that measured gain or loss was the Wilcoxon. The Wilcoxon test procedure was used in analyzing all five hypotheses. The five null hypotheses were rejected and the five research hypotheses were not rejected (see Table 2).

**Table 2. Hypothesis Analysis Summary**

Hypothesis	Procedure	p-value	Hypothesis Disposition
1	Wilcoxon	.0023	Null Hypothesis Was Rejected
2	Wilcoxon	.01	Null Hypothesis Was Rejected
3	Wilcoxon	.0013	Null Hypothesis Was Rejected
4	Wilcoxon	.0001	Null Hypothesis Was Rejected
5	Wilcoxon	.001	Null Hypothesis Was Rejected

### Conclusions

Research findings led to several conclusions concerning the information literacy curriculum at the CFOT. The Information Literacy course proved an effective method of communicating information literacy skills to a large number of students. The large class size and the ability to work with peers on group tasks proved helpful to many students. Some students were overwhelmed with the size of the class and were also intimidated by the skill levels of some of their peers. In such instances these students could have benefited from a smaller class size, more individual instruction, and minimal or no group activities.

For a majority of students the classroom activities that required hands-on interaction with the Internet was a positive learning experience. These students enjoyed direct engagement with the course materials and visually sought to connect the links between course objectives and student learning outcomes. All the students preferred doing classroom activities instead of take-home assignments. The problem with doing only classroom activities was that it allowed those students who were leaders in the group to take charge and sometimes do all the tasks. When leaders did all the work, those students who needed the most practice missed out on a critical learning opportunity. Also, those students who lacked motivation took advantage of a situation in which others did their work for them.

For all of the students self-confidence played a significant role in how well the students in the class. Students who were familiar with and comfortable using a variety of media

grasped concepts more readily. At the same time students who were over-confident missed learning opportunities because they assumed they knew everything they needed to know.

Designing the class as a required one-unit graded course made a difference in how seriously the students took the materials presented. Despite the syllabus and classroom orientation on the first day of instruction, many students failed to turn in their assignments, assuming that the course was a pass or fail grading system. The instructor had to reiterate the significance of the assignments and the importance of the class, observing that in order to receive a passing grade of D or better all assignments had to be completed and turned in on time. To encourage a more serious attitude toward the coursework, integrating a short graded quiz at the start of each lesson, would be beneficial for assessing the student's actual understanding and retention of materials that were presented in the previous class.

Throughout the course presentations the instructor presented materials within the context of Salvation Army ministry, specifically addressing problems and issues that would arise in a typical Salvation Army ministry setting and explaining how an information literate student would be able to confidently respond to such issues.

Students responded well to a variety of classroom instruction techniques. The instructor provided a broad range of presentations including a mix of media such as Power Point presentations, Internet presentations, white board illustrations, charts and diagrams, along with oral presentations. Students were regularly encouraged to ask questions and participate in the learning environment.

Some students exhibited a lack of self-control as they were easily distracted with access to the Internet and used the opportunity to pursue personal activities online such as sending emails, playing games, and browsing Facebook. Several students took on the role of monitoring each other's activities. The strong sense of

*When leaders did all the work, those students who needed the most practice missed out on a critical learning opportunity.*

community, encouraged during the two-year training program at the CFOT, proved helpful in self-regulating among peers to stay on task.

There was discrepancy among faculty in implementing information literacy standards within the classroom. One area of discrepancy was the implementation of uniform citation standards. The citation format at the CFOT was the Modern Language Association (MLA), yet several instructors were unaware of this or were not diligent in checking for its implementation in assignments that were submitted.

Overall, the course on Information Literacy was effective in communicating general and subject specific information literacy skills to students. Several adjustments were made throughout the course to better accommodate the needs of students. The instructor was sensitive and responsive to the needs of the students.

### **Implications**

Recommendations for the future would be to continue using the modified *B-TILED* instrument as it yielded high reliability scores and could be expected to yield consistent results in the local context. The *B-TILED* was readily adaptable to modification in subject area making it well suited for use within the context of a seminary. Assessment questions encouraged critical thinking and captured what was actually taught during the course of study.

Those students who showed no improvement in their information literacy skills, along with those students who showed a drop in their scores, needed the course to be further refined to address their specific needs. In order to address the needs of these students more opportunities for individual instruction could be provided. Tutoring sessions could be scheduled within a less distractive environment, such as the library, to work through activities, providing immediate feedback and assistance as needed.

The first quarter Information Literacy course was competing with a multitude of issues encompassing first-year students including becoming familiar with the requirements of traditional classroom courses, Salvation Army courses, and field training requirements. Simultaneous to coursework, students were also learning what it meant to live in community. Several faculty members were not familiar or knowledgeable with information literacy standards and the requirements that needed to be met for accreditation.

Library orientation took place before the start of the formal Information Literacy course. Orientation week in general tended to be overwhelming for many students. Students did not generally understand the significance that the library and its resources would have during their time at the college. Much of the material presented during library orientation needed to be repeated during the Information Literacy course reducing time that was allotted to specific course-designed assignments and tasks. Incorporating library orientation into the actual Information Literacy course would be an effective integration of information resources into the actual course.

The current college curriculum was effective in meeting ACRL standard four, encouraging the use and incorporation of information in a multitude of formats. Students were demonstrating use of critical thinking skills as they incorporated the information they researched into meaningful presentations that were appropriate to a range of audiences. Within the diverse curriculum of the college, that incorporated both traditional classroom and field training education, students indicated they were presenting information in at least five different formats including written research papers, visual projects, presentation software, dramatic performances, and web pages. Assessing how effectively information literacy skills were actually being applied in these presentations suggested a need for formal documentation and accountability on the part of instructors.

*At the same time students who were over-confident missed learning opportunities because they assumed they knew everything they needed to know.*

*The development and institution of a required course in information literacy for all incoming students proved beneficial as suggested through pretest and posttest assessments.*

Accreditation concerns in regard to the information literacy skills of students were validated in the pretest assessment. The development and institution of a required course in information literacy for all incoming students proved beneficial as suggested through pretest and posttest assessments. Pretest and posttest assessments during the required course provided data that was used by the curriculum department in developing syllabi guidelines for instructors that would encourage the continuance of information literacy skills throughout the two-year student program. Data from the assessments were also used for accreditation purposes in providing evidence of ongoing self-assessment efforts by the college.

Involvement of the researcher with the curriculum department, the faculty, the institutional research department, and the library provided the opportunity to implement a formal assessment protocol in information literacy that proved beneficial to the student and to the college. The researcher was able to respond to the specific needs of a nontraditional seminary by customizing the Information Literacy course to the unique demands of the CFOT. Course assignments were designed and adjusted to meet the subject matter being presented in other courses that assisted and reinforced specific skills being taught to students such as critically evaluating web resources, selection of scholarly resources, and what elements to include in a citation.

The process of development, design, and assessment of the Information Literacy course created congenial working relationships among faculty, curriculum, administration, and the library. The process resulted in new knowledge and skills for everyone involved and an overall appreciation of the effects of information literacy skills in the development of the student.

Administration was able to use the assessments as supporting evidence for accrediting bodies. The research findings provided continued support for library budget allocations, including monies for online database subscriptions. The Information Literacy course resulted in the library expanding its online databases to include a newspaper resource.

Those students that benefited from the Information Literacy course developed skills that they applied to their classes at the college and also their field training experiences, indicating they would carry what they had learned into the field as commissioned officers in The Salvation Army. These lifelong skills were applied in their daily Christian ministry. Competency in information literacy skills included awareness of ethical and legal issues involved in the use of information and affected the personal development of the student. Students applied their understanding of copyright, fair use, and plagiarism in all aspects of their lives, suggesting they would take this life skill with them as commissioned officers into the field in support of the Christian work ethic and mission of The Salvation Army.

This study added to the growing body of knowledge in theological librarianship. The assessment instrument, *B-TILED*, demonstrated repeated reliability through three consecutive assessments; providing a valuable resource tool for utilization in teaching subject specific information literacy and in institutional accreditation. The program of instruction developed by the researcher effectively integrated subject specific materials with ACRL standards enabling students to retain and utilize the information learned throughout their course of selected study. †

## APPENDIX A

### BEILE INFORMATION LITERACY TEST FOR EDUCATION (B-TILED)

The library is gathering information to evaluate the effectiveness of its instruction program. This questionnaire consists of demographic questions and a library and information skill quiz.

Fill in the most correct choice on your Scantron form.

1. Overall, how would you rate your ability to search library databases to find information?
  - a. excellent
  - b. good
  - c. average
  - d. poor
2. Overall, how would rate your ability to search the Internet to find information?
  - a. excellent
  - b. good
  - c. average
  - d. poor

Please indicate whether you have attended any of the following since you began your studies at UCF.

3. Have you attended a tour or physical orientation of the library?
  - a. yes
  - b. no
  - c. don't know
4. Have you attended a library instruction session held in your classroom?
  - a. yes
  - b. no
  - c. don't know
5. Have you attended a library instruction session held in the library?
  - a. yes
  - b. no
  - c. don't know
6. Have you had one on one intensive instruction with a librarian?
  - a. yes
  - b. no
  - c. don't know
7. Which of the following characteristics best indicates scholarly research?
  - a. available in an academic library
  - b. indexed by ERIC
  - c. reviewed by experts for publication
  - d. written by university faculty
8. Your professor has assigned a paper on the whole language movement. You are not familiar with the topic, so you decided to read a brief history and summary about it. Which of the following sources would be best?
  - a. a book on the topic, such as *Perspectives on whole language learning: A case study*
  - b. a general encyclopedia, such as Encyclopedia Britannica
  - c. an article on the topic, such as "Whole language in the classroom: A student teacher's perspective."
  - d. an education encyclopedia, such as Encyclopedia of Education

9. Research or periodical databases are designed to include items based on which of the following criteria?
  - a. found on the Internet
  - b. not found on the Internet
  - c. owned by your library
  - d. relevant subject matter
10. ERIC is the most appropriate database to search to locate:
  - a. education article citations and documents
  - b. education publications from 1877 to current
  - c. full-text education articles
  - d. US Department of Education statistics
11. Most research and periodical databases have basic and advanced searching interfaces. Which of the following can you do ONLY in advanced searching?
  - a. add Boolean or search connectors between terms
  - b. enter multiple search terms
  - c. search by keyword
  - d. search multiple terms by field
12. Research studies in education are generally first communicated through:
  - a. books published by education associations
  - b. education encyclopedia entries
  - c. newsletters of education associations
  - d. professional conferences and journal articles
13. You have been assigned to write a short class paper on effective instruction techniques for teaching English as a Second Language (ESL) students. Your professor indicated three recent scholarly sources would be sufficient. Which
  - a. search a general academic and an education database for journal articles
  - b. search an education database for journal articles
  - c. search the library catalog for books
  - d. search the library catalog for encyclopedias.
14. Select the set of search terms that best represents the main concepts in the following:

What are the health risks associated with the use of drug therapy for hyperactive students?

  - a. drug therapy, health risks, hyperactivity
  - b. drug therapy, health risks, students
  - c. drug therapy, hyperactivity, students
  - d. drugs, hyperactivity, therapy
15. Select the set that best represents synonyms and related terms for the concept "college students."
  - a. colleges, universities, community colleges
  - b. Gen X, students, undergraduates
  - c. graduate students, freshmen, sophomores
  - d. university, adult learners, educational attendees
16. While researching a paper on character education, you find that it is also sometimes called *values education* or *moral education*. You decided to look for information on the subject in a research database, and to save time you write a search statement that includes all three terms. Which of the following is the best example to use when you have fairly synonymous terms and it does not matter which of the terms is found in the record?
  - a. character and values and moral
  - b. character or values or moral
  - c. character, values and moral
  - d. character, values, or moral

17. You are using a research database that uses asterisk (\*) as its truncation symbol. When you type in *read\** you would retrieve records that contained which of the following words?
- examine, peruse, reader, reading
  - peruse, read, reader, reading
  - read, reader, reads, readmit
  - read, reader, reading, reapply
18. You have a class assignment to investigate how group work impacts student learning. A keyword search in ERIC on "group work" has returned over 600 items. To narrow your search, which of the following step would you next perform?
- add "impacts" as a keyword
  - add "student learning" as a keyword
  - limit search results by date
  - limit search results by publication types
19. The following citation is for Massaro, D. (1991). Broadening the domain of the fuzzy logical model of perception. In H.L. Pick, Jr., P. van den Broek, & D.C. Knill (Eds.), *Cognition: Conceptual and methodological issues* (pp. 51-84). Washington, DC: American Psychological Association.
- a book
  - a chapter in a book
  - a journal article
  - an ERIC document
20. Your professor suggested you read a particular article and gave you the following citation:
- Shayer, M. (2003). Not just Piaget, not just Vygotsky. *Learning and instruction*, 13(5), 465-485.
- Which of the following would you type into the library's catalog to locate the actual article?
- author search: Shayer
  - journal title search: *Learning and Instruction*
  - journal title search: Not just Piaget, not just Vygotsky
  - subject search: Piaget and Vygotsky
21. The following item was retrieved from an ERIC database search. What kind of source is it?
- Title: Pre-service Elementary Teachers' Self-Efficacy Beliefs  
 Author (s): Cakiroglu, Jale; Boone, William J.  
 Publication Year: 2001  
 Abstract: The purpose of this study was to examine pre-service elementary teachers' self-efficacy beliefs in teaching science.  
 Note: Presented at the Annual Meeting of the American Educational Research Association (Seattle, WA, April 10-14, 2001).  
 Number of Pages: 24  
 ERIC Number: ED453084
- a book
  - a book chapter
  - a conference paper
  - a journal article
22. Using this result from an Internet search engine, who is the "owner" of this Web site?
- State policies on planning, finding, and standards. Does the state have technology requirements for students?*  
<http://www.edweek.org/reports/tc98/states/fl.htm>
- business of commercial entity
  - college or university
  - other organization
  - state government agency
23. While developing a lesson plan of the US legislative system, you find the following story on the Internet:
- Congress Launches National Congress-Awareness Week  
 WASHINGTON, DC-Hoping to counter ignorance of the national legislative body among U.S. citizens, congressional leaders named the first week in August National Congress Awareness Week. "This special week is designed to call attention to America's very important federal lawmaking body," Speaker of the House Dennis Hastert said. The festivities will kick off with a 10-mile Walk for Congress Awareness. The time is from a newspaper Web site, which states it is "America's Finest News Source." Given this, the following action is in order:
- you can use the story as it's obviously from a reputable news source
  - you decide to investigate the reputation of the publisher by looking at their Web site
  - you decided to investigate the reputation of the publisher by looking at other Web sites
  - you should not use the story because Web information is not always trustworthy
24. Based on the following paragraph, which sentence should be cited? (1)Technology use in the schools is often characterized as a potentially dehumanizing force. (2)Perhaps the fear that virtual world may lead to passivity and isolation, at the expense of literal social interaction, is valid. (3)Certainly, educators must ask *which* uses of technology result in increased learning and a better quality of life. (4)To address these issues, Hunter has proposed that students work in groups with computer peripheral to the group and the teacher acting as facilitator.
- 1
  - 2
  - 3
  - 4
25. When is it ethical to use the ideas of another person in a research paper?
- it is never ethical to use someone else's ideas
  - only if you do not use their exact words
  - only when you give them credit
  - only when you receive their permission
26. You are planning an open house for your students' parents. Browsing the Internet, you find the report *Child Safety on the Internet*, which is a US Department of Education publication. If you distribute 30 copies of the report to parents at the open house, which of the following copyright choices is the proper action?
- permission is not needed as the report is from a government agency
  - permission is not needed as the report was found on the Internet
  - permission is not needed as you are only distributing 30 copies
  - permission to distribute 30 copies of the report must be acquired
27. You have an assignment that requires you to use course management software to practice setting up a class grade book. Your school has purchased the software and loaded it in the computer lab, but you have a difficult time getting to the lab due to work conflicts. A friend loans you the software and you load it on your computer. Is this legal?
- no, because this action constitutes a violation of the copyright
  - yes, because it is already freely available in the lab
  - yes, because it is education software and therefore able to be shared
  - yes, because your friend owns it and can share as he wants
28. Browsing a weekly news magazine, you come across an article that discusses the future of space exploration. As you are teaching this topic you decide to make copies of the article and share it with your class. Which of the following concepts makes it legally permissible to reproduce portions of works for educational purposes without permission?

- a. copyright
- b. fair use
- c. freedom of information
- d. intellectual freedom

29. Which of the following most closely describes the level you want to teach?
- a. early childhood
  - b. elementary
  - c. middle school
  - d. high school
30. What is your student classification?
- a. freshman
  - b. sophomore
  - c. junior
  - d. senior
31. How long have you been continuously enrolled at UCF?
- a. less than 1 year
  - b. 1 to 2 years
  - c. 3 to 4 years
  - d. more than 4 years
32. Have you ever attended another university or college?
- a. yes (go to question 33)
  - b. no (skip to question 34)
33. How long ago did you attend another university or college?
- a. 0-1 year
  - b. 2-3 years
  - c. 4-5 years
  - d. more than 5 years
34. What is your gender?
- a. male
  - b. female
35. Please indicate those racial or ethnic groups that apply to you. (Select all that apply)
- a. White or European American
  - b. Hispanic or Latino
  - c. Black or African American
  - d. Asian or Asian American
  - e. Other (write in on Scantron)

Thank you!

### Test Key

- |       |       |       |       |
|-------|-------|-------|-------|
| 7. C  | 13. B | 19. B | 25. C |
| 8. D  | 14. A | 20. B | 26. A |
| 9. D  | 15. C | 21. C | 27. A |
| 10. A | 16. B | 22. C | 28. B |
| 11. D | 17. C | 23. C |       |
| 12. D | 18. B | 24. D |       |

Retrieved November 18, 2009, from O'Neil, P. (2005). *Development and validation of the Beile test of information literacy for education (B-Tiled)*. [Diss].

## APPENDIX B

### CFOT INSTRUMENT, MODIFIED B-TILED

#### EVALUATION OF INFORMATION LITERACY SKILLS Officer Training-Western Territory, U.S.A.

*The library is collecting data to evaluate the effectiveness of information literacy instruction. This questionnaire consists of demographic questions and a library and information skills quiz.*

*Please circle the most correct choice on your answer sheet.*

#### Standard I: The information literate student determines the nature and extent of the information needed.

1. "Information literacy" is best described as the ability to
  - a. read complex documents
  - b. locate, evaluate, and use information effectively
  - c. search the "free web" for information
  - d. summarize information you read
2. Scholarly articles generally contain
  - a. an abstract to the contents of the article
  - b. the author's affiliation or credentials
  - c. a bibliography or a list of works cited
  - d. all of the above
3. Which of the following characteristics best indicates scholarly research?
  - a. available in an academic library
  - b. indexed by ATLA
  - c. reviewed by experts for publication
  - d. written by university faculty
4. Research or periodical databases are designed to include items based on which of the following criteria?
  - a. found on the Internet
  - b. not found on the Internet
  - c. owned by your library
  - d. relevant subject matter
5. ATLA is the most appropriate database to search to locate:
  - a. journal articles, book reviews, and collections of essays in the field of religion
  - b. magazine and journal articles on religion and philosophy from 1980s to current
  - c. full-text religion articles
  - d. National, world, and church statistics

#### Standard II: The information literate student accesses needed information effectively and efficiently.

6. Your instructor has assigned a paper on the Protestant Reformation. You are not familiar with the topic, so you decide to read a brief history and summary about it. Which of the following sources would be best?
  - a. a book on the topic, such as *The Protestant Reformation: Belief, practice, and tradition*
  - b. a general encyclopedia, such as *Encyclopedia Britannica*
  - c. an article on the topic, such as "Luther and the Protestant Reformation"
  - d. a religious encyclopedia, such as *Encyclopedia of Religion*

7. A KEY WORD search will
- search only titles
  - work even if you spell a word wrong
  - search title, contents, and subject areas
  - search reference material only
8. Most research and periodical databases have basic and advanced searching interfaces. Which of the following can you do ONLY in advanced searching?
- add Boolean or search connectors between terms
  - enter multiple search terms
  - search by keyword
  - search multiple terms by field
9. When you utilize books or periodical articles for a paper, you should evaluate
- title and intended audience
  - if it is current and available in a full text database
  - title, date, and country of publication
  - relevance, currency, publisher, and author's credential
10. You have been assigned to write a short class paper on effective Christian education teaching methods. Your instructor indicated three scholarly sources would be sufficient. Which strategy is best to locate items?
- search a general academic database for journal articles
  - search an academic religion database for journal articles
  - search the library catalog for books
  - search the library catalog for encyclopedias
11. Select the set of search terms that best represent the main concepts of the following: What are the health risks associated with the use of drug therapy for attention deficit disorder (ADD) students?
- drug therapy, health risks, ADD
  - drug therapy, health risks, students
  - drug therapy, ADD, students
  - drugs, ADD, therapy
12. Select the set that best represents synonyms and related terms for the concept "college students."
- colleges, universities, community colleges...
  - Gen X, students, undergraduates...
  - graduate students, freshmen, sophomores...
  - university, adult learners, educational attendees...
13. While researching a paper on moral education, you find that it is also sometimes called *values education* or *character education*. You decide to look for information on the subject in a research database, and to save time you write a search statement that includes all three terms. Which of the following is the best example to use when you have fairly synonymous terms and it does not matter which of the terms is found in the record?
- moral and values and character
  - moral or values or character
  - moral, values and character
  - moral, values or character
14. You are using a research database that uses an asterisk (\*) as its truncation symbol. When you type in *read\** you would retrieve records that contained which of the following words?
- examine, peruse, reader, reading
  - peruse, read, reader, reading
  - read, reader, reads, readmit
  - read, reader, reading, reapply
15. What does "59" in the citation below signify?
- Trothen, Tracy J. "Through the looking glass: women and ministry supervision." *Journal of Pastoral Care & Counseling* 59.1-2 (2005): 29-42.
- total number of pages
  - number of references
  - volume number of periodical
  - beginning page of article
16. The following citation is for:
- Larson, Craig Brian. "The Power of Sequence: Should You Use Parallel Points or Sequential Points?" *The Art and Craft of Biblical Preaching: A Comprehensive Resource for Today's Communicators*. Ed. Haddon Robinson. Grand Rapids, MI: Zondervan, 2005. 358-60.
- a book
  - a chapter in a book
  - a journal article
  - an ATLA document
17. Your instructor suggested you read a particular article and gave you the following citation:
- Sell, Charles M. "Ministry to the "typical" American family." *Journal of Christian Education (US)* 2.2 (1982): 19-23.
- Which of the following would you type into the library's ATLA database link to locate the actual article?
- author search: Sell
  - journal title search: *Journal of Christian Education*
  - journal title search: Ministry to the "typical" American family
  - subject search: Ministry and American family
- Standard III: The information literate student evaluates information and its sources critically and incorporates selected information into his or her knowledge base and value system.**
18. Research studies in biblical archaeology are generally first communicated through:
- books published by religious associations
  - religion encyclopedia entries
  - newsletters of religious associations
  - professional conferences and journal articles
19. The following item was retrieved from an ATLA database search. What kind of source is it?
- Title: Beyond progressive scientific humanism  
 Author: Marsden, George M.  
 Publication: 2000  
 Abstract: Purpose of the essay to address the topic of religious scholars in academia.  
 Note: Paper presented at the Harvard Conference on the Future of Religious Colleges (Cambridge, MA, October 6-7, 2000)  
 Number of pages: 15
- a book
  - a book chapter
  - a conference paper
  - a journal article
20. Using this result from an Internet search engine, who is the "owner" of this Web site? *State policies on planning, funding, and standards. Does the state have technology requirements for students?* <http://www.edweek.org/reports/tc98/states/fl.htm>
- business or commercial entity
  - college or university
  - other organization
  - state government agency

21. While developing a sermon on the boyhood of Jesus Christ, you find the following story on the Internet:
- 1<sup>st</sup> Jesus-Era House Found in Nazareth**  
 Associated Press- Days before Christmas, archaeologists on Monday unveiled what they said were the remains of the first dwelling in Nazareth that can be dated back to the time of Jesus- a find that could shed new light on what the hamlet was like during the period the New Testament says Jesus lived there as a boy.
- This item is from a news Web site, which claims it is “fair and balanced.” Given this, the following action is in order:
- you can use the story as it’s obviously from a reputable news source
  - you decide to investigate the reputation of the publisher by looking at their Web site
  - you decide to investigate the reputation of the publisher by looking at other Web sites
  - you should not use the story because Web information is not always trustworthy
27. During the current school year, what is the approximate number of papers or other assignments **under 5 pages** you’ve been assigned?
- 1 to 2
  - 3 to 5
  - 6 to 8
  - over 8
28. During the current school year, what is the approximate number of papers or other assignments of **5 or more pages** you’ve been assigned?
- 1 to 2
  - 3 to 5
  - 6 to 8
  - over 8
29. During the current school year have you ever been given the opportunity to present your class assignment using the following methods/formats? Please select all that apply.
- written research paper
  - visual project
  - power point or other presentation software
  - web pages
  - dramatic performance  
(sing/dance/recite/music interpretation)

**Standard IV: The information literate student, individually or as a member of a group, uses information effectively to accomplish a specific purpose.**

22. During the current school year, about how often have you worked on a paper or project that required integrating ideas on information from various sources?
- weekly
  - monthly
  - rarely
  - never
23. During the current school year, about how often have you used an electronic medium (listserv, chat group, Internet, instant messaging, etc.) to discuss or complete an assignment?
- weekly
  - monthly
  - rarely
  - never
24. During the current school year, about how often have you used e-mail to communicate with an instructor or classmates?
- weekly
  - monthly
  - rarely
  - never
25. During the current school year, about how often have you used library resources to complete a class assignment?
- weekly
  - monthly
  - rarely
  - never
26. During the current school year, about how many hours per week have you spent preparing for class? (studying, reading, doing homework, analyzing information, writing, etc.).
- 1 to 5
  - 6 to 10
  - 11 to 15
  - 16 to 20
  - over 20

**Standard V: The information literate student understands many of the economic, legal, and social issues surrounding the use of information and accesses and uses information ethically and legally.**

30. Based on the following paragraph, which sentence should be cited?
- Technology use in the schools is often characterized as a potentially dehumanizing force.
  - Perhaps the fear that the virtual world may lead to passivity and isolation, at the expense of literal social interaction, is valid.
  - Certainly, educators must ask which uses of technology result in increased learning and a better quality of life.
  - To address these issues, Hunter has proposed that students work in groups with the computer peripheral to the group and the instructor acting as facilitator.
- 1
  - 2
  - 3
  - 4
31. When is it ethical to use the ideas of another person in a research paper?
- it is never ethical to use someone else’s ideas
  - only if you do not use their exact words
  - only when you give them credit
  - only when you receive their permission
32. You are planning an open house for parents and adults responsible for children attending an after school program. Browsing the Internet, you find the report *Child Safety on the Internet*, which is a US Department of Education publication. If you distribute 30 copies of the report to parents at the open house, which of the following copyright choices is the proper action?
- permission is not needed as the report is from a government agency
  - permission is not needed as the report was found on the Internet
  - permission is not needed as you are only distributing 30 copies
  - permission to distribute 30 copies of the report must be acquired

33. You have an assignment that requires you to use course ministry software to practice designing Vacation Bible School (VBS) daily lesson plans. Your school has purchased the software and loaded it in the Educational Achievement Center, but you have a difficult time getting to the center due to scheduling conflicts. A friend loans you the software and you load it on your computer. Is this legal?
- no, because this action constitutes a violation of copyright
  - yes, because it is already freely available in the lab
  - yes, because it is education software and therefore able to be shared
  - yes, because your friend owns it and can share as he wants

34. Browsing a weekly news magazine, you come across an article that discusses the future of the church in America. As you are working on a presentation for class on this topic you decide to make copies of the article and share it with your class.

Which one of the following concepts makes it legally permissible to reproduce portions of works for educational purposes without permission?

- copyright
- fair use
- freedom of information
- intellectual freedom

**This section gathers demographic and background information to assist us in analyzing the data for the CFOT population.**

35. Overall, how would you rate your ability to search library databases to find information?
- excellent
  - good
  - average
  - poor
36. Overall, how would you rate your ability to search the Internet to find information?
- excellent
  - good
  - average
  - poor
37. Please mark all of the following you have done since you began your studies at the CFOT.
- attended a walking tour or physical orientation of the library
  - attended a library instruction session held in your classroom or the library
  - participated in a chat session or instant messaged a librarian
  - used a supplemental Web page on library resources with a class
38. What is your gender?
- man
  - woman
39. What year Cadet are you?
- 1<sup>st</sup> year cadet
  - 2<sup>nd</sup> year cadet

40. How do you describe yourself?
- Asian, Asian American, or Pacific Islander
  - Black or African American
  - Hispanic or Latino
  - White or European-American
  - other \_\_\_\_\_
41. Do you communicate better (or as well) in English than in any other languages?
- yes
  - no
42. What is the highest level of education you have completed?
- high school/GED
  - some college
  - 2 year college
  - 4 year college
  - master's degree
  - post-graduate

THANK YOU FOR PARTICIPATING!

#### Test Key

- |      |       |       |       |
|------|-------|-------|-------|
| 1. B | 8. D  | 15. C | 30. D |
| 2. D | 9. D  | 16. B | 31. C |
| 3. C | 10. B | 17. B | 32. A |
| 4. D | 11. A | 18. D | 33. A |
| 5. A | 12. C | 19. C | 34. B |
| 6. D | 13. B | 20. C |       |
| 7. C | 14. C | 21. C |       |

#### WORKS CITED

- Association for College and Research Libraries (2000). *Information literacy competency standards for higher education* (Standards/information literacy/competency.cfm). Retrieved May 4, 2010, from <http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm>
- Crouch, A. (2008). *Culture making: Recovering our creative calling*. Downers Grove, IL: InterVarsity Press.
- O'Neil, P. (2005). *Development and validation of the Beile test of information literacy for education (B-Tiled)*. (Unpublished doctoral dissertation) Retrieved from UMI. (3193465)
- WASC Accrediting Commission for Schools. (May 4, 2010). Western Association of Schools and Colleges. Retrieved from <http://www.acswasc.org/index.htm>