

A Transition Checklist for High School Seniors

by Patricia Owen



According to some predictions, half of the students who enter college in the 21st century will fail to earn a degree, and a contributing factor is their inability to find and use information (Carr and Rockman 2003). Academic librarians and college faculty frequently complain that freshmen students are unable to use university resources well (Daniel 1997); in fact, 59% of college instructors are dissatisfied with the ability of high school graduates to do research (<http://www.achieve.org/node/548>). So if high school seniors don't know enough about research to be successful in college, what do they need to learn before graduation and what can school librarians do about it?

What Skills Do Students Need?

Numerous studies explore the research skills students lack when they enter college. The skill weaknesses have been documented by librarians who use discussions (Daniel 1997), anecdotal data (Gauss and King 1998; Hartmann 2001), evidence-based research (Oakleaf and Owen), and professional experience as a basis for their descriptions of student skills. The skill weaknesses can be

categorized into several groups: lack of general knowledge, difficulty defining research questions and following the research process, problems searching for information, and trouble evaluating and using information (see Figure 1, page 21). In addition to the skill weaknesses revealed by research studies, a number of organizations have articulated the skills students need to be successful in college and life into their information literacy standards. The American Association of School Librarians (AASL), the Association of College and Research Libraries (ACRL), the Partnership for 21st Century Skills, and the International Society for Technology in Education (ISTE) outline specific skills college students and school librarians can use as the basis of a checklist for high school seniors transitioning to college (see Figure 2, page 21).

What School Librarians Can Do: An Example

While the research studies and organization standards that describe student skills required for college success are informative for school librarians, they are unwieldy for high school seniors. A checklist, based on the skills needed for college-bound students, provides a flexible learning tool that school librarians, classroom teachers, students, and parents can use to 1) check off the skills students already know, 2) assess student confidence in their research skills, and

Figure 1. What Information Literacy Research Says About Student Skills

<p>General Knowledge One general problem nearly all high school seniors and college freshmen have is that they don't know what they don't know! Before teaching students information literacy skills, school librarians often need to demonstrate to students that they have skill deficiencies, and that is not always an easy task. Students have two other general research problem areas: they don't know who to ask for help when (and if) they recognize that they need it (Pandora 2004), and they don't understand basic library jargon (Daniel 1997) such as "OPAC," "scholarly journal," and "primary sources."</p> <p>Research Process & Questions Students have difficulty articulating research questions and topics. They often choose research questions and topics that college faculty consider shallow or "pop" (Daniel 1997; Fitzgerald 2004). College freshmen do not follow the steps of research processes they are taught (Daniel 1997), such as the Big6, DIALOGUE model, or Kuhlthau's Information Seeking Process. As a consequence, they do not accurately estimate the time required for research (Daniel 1997), cannot take advantage of the full range of library services such as interlibrary loan, and experience stress that sometimes leads to acts of plagiarism.</p> <p>Searching for Information College students are deficient in the area of searching for information. Students tend to rely on Web search engines as their main information search strategy. They don't realize that most college-level research resources are not available on the free Web and are not formatted as Web sites. Because of their reliance on free Web sources, they do not find the other formats of information their professors expect (Daniel 1997). Those students who attempt to use college library Web sites do not distinguish between OPACs and online databases (Islam and Murno 2006); many equate them with Web search engines like</p>	<p>Google. Consequently, they use Google-type search strategies rather than the more sophisticated terms required for effective searching of library resources (Daniel 1997) such as keywords, alternate search terms, Boolean terms, controlled vocabulary, subject headings, and field searching. When they retrieve search results, they don't know how to parse and interpret them. As a result, they have difficulty finding the full text of articles online or in print and using Library of Congress (LC) call numbers to put their hands on books (Daniel 1997). Perhaps their difficulties with LC call numbers are in part responsible for their tendency to ignore reference resources (Quarton in Fitzgerald 2004). Additionally, most students do not regroup when their first attempts to find resources are unsuccessful; they are more likely to decide that there are no resources on their topic (Daniel 1997).</p> <p>Evaluating Information When students do locate information, they are not sufficiently critical of it (Daniel 1997). They often use the first resources they encounter rather than wade through search results to find relevant, adequate, and accurate information using standard evaluation criteria. They don't distinguish between popular and scholarly articles (Matorana 2001). Students frequently dismiss useful print resources and accept inadequate or inaccurate information (Matorana 2001), especially in the form of data and statistics.</p> <p>Using Information Students also need to improve the way they use the information they locate. Students don't synthesize, communicate, and argue theses using evidence effectively (Fitzgerald 2004). They have difficulty representing, analyzing, and critiquing the ideas of others ethically. They find it challenging to write without plagiarizing (accidentally or otherwise) and lack facility in using multiple citation styles.</p>
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3) revise library curriculum and instruction (see Figure 3, page 22).

Checking Off Student Skills

The checklist serves as a useful inventory tool for student learning and can be used as a framework to design information literacy lessons. For example, I designed a set of lessons to proceed through the information literacy checklist, addressing various skills in turn (Owen "Heads Up"). Each component of the lessons focused on a different checklist skill. I collaborated with a senior English teacher and a visiting academic librarian to plan and teach the lessons. Incidentally, the 12-13 (high school senior to college freshman) transition

Figure 2. Information Literacy Standards

Library Organization	Library Standards
AASL	http://www.ala.org/aasl/standards/
ACRL	http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm
Partnership for 21st Century Skills	http://www.21stcenturyskills.org/
ISTE	http://www.iste.org/NETS/

lessons served as a prototype for future information literacy collaborations throughout the year; the checklist served as an overarching structure. As a team, we decided to integrate the lessons into an existing senior course assignment. The lesson plan, "Heads Up! A Checklist for Transitioning to College" (see pages

8-9 in this issue of *SLM*), covers a day-by-day explanation of the lessons.

Assessing Student Confidence

As the year progressed, it became apparent that the checklist could be used

Figure 3. Checklist of Student Skills

GENERAL

- Know what they don't know
- Know who to ask for research help
- Understand library jargon, e.g., "peer-reviewed"

RESEARCH PROCESS & QUESTIONS

- Follow research process steps, e.g., info lit model
- Estimate time required for research, e.g., Interlibrary loan
- Define a research question or topic that's not shallow or "pop"

SEARCHING FOR INFORMATION

- Find different formats of information
- Understand that Web search engines rarely locate college-appropriate information
- Distinguish between OPACs and online databases
- Conduct effective searches using
 - Keywords, alternate search terms
 - Boolean terms, e.g., AND, OR
 - Controlled vocabulary, subject headings
 - Field searching, e.g., author, title
- Interpret search results, e.g., book chapters vs. article
- Find full text of articles
- Find books using Library of Congress (LC) classification, not Dewey
- Use reference books in the library
- Regroup when first attempts to find resources don't work, e.g., try a different database

EVALUATING INFORMATION

- Weed through search results to find adequate and accurate information
- Evaluate information using standard evaluation criteria
- Distinguish between popular and scholarly articles
- Disregard inadequate or inaccurate information

USING INFORMATION

- Synthesize, communicate, and argue a thesis using evidence
- Analyze data and statistics
- Represent, analyze, and critique the words and ideas of others ethically
- Write without plagiarizing (accidentally or otherwise), e.g., use in-text citations
- Cite sources properly using multiple citation styles, e.g., KnightCite

P. Owen & M. Oakleaf, Using Evidence to Bridge the 12-13 Gap, OELMA 2008

Figure 4. Survey of Student Skills

12-13 COLLEGE CHECKLIST 17%

1. I know who to ask for research help.
 Yes
 No

2. I can understand library jargon, ex. "full text".
 Yes
 No

3. I can follow research process steps, ex. information literacy model.
 Yes
 No

4. I can estimate the time required for research, ex. ILL.
 Yes
 No

5. I can define a research question or topic that's not "pop" or shallow.
 Yes
 No

Next

Figure 5. Following Research Process Steps

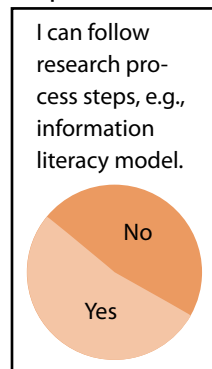


Figure 6. Boolean Search Terms

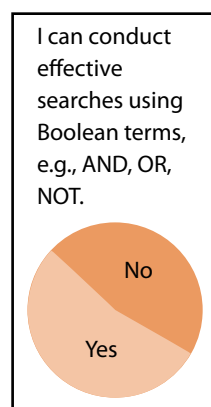


Figure 7. Library of Congress Call Numbers

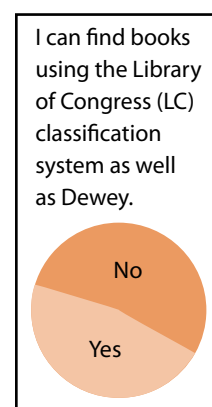
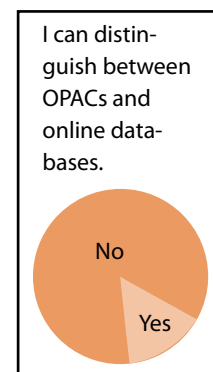


Figure 8. Distinguish Online Catalogs and Databases



not only as a teaching tool, but also as an assessment mechanism. For example, the checklist could be used to assess student confidence in their research skills. A SurveyMonkey assessment helped seniors evaluate their skills. In the survey, seniors responded to statements based on each checklist skill (see Figure 4). The survey was linked to the school library Web site, and teachers required students to complete the survey as a final homework assignment just before graduation.

The next step was to analyze the survey results and gather significant information about how seniors gauged

their individual information literacy abilities. Although they showed confidence in many areas, nearly half of them revealed that they were not confident about their ability to follow the steps of a research process systematically (see Figure 5), employ Boolean search terms effectively (see Figure 6), or use the Library of Congress classification system to find books (see Figure 7). Many of these seniors were uncertain about the differences between searching online library catalogs (OPACs) and online article databases (see Figure 8). In order to gain a full picture of these seniors' skills,

I compared the results with another of their assessments, TRAILS-9 (Owen "Using TRAILS").

Revising the Curriculum

Revision of the information literacy curriculum was undertaken as a result of checklist lessons and the research confidence survey. Keeping the survey results in mind, the following questions were used to audit existing lessons:

- ▶ Are all of the skills colleges expect seniors to acquire represented in my current middle and high school information literacy curriculum?
- ▶ Are there skills that seniors lack at graduation that require greater instructional emphasis?
- ▶ Are there skills that seniors master at lower grade levels that I could delete from my high school lessons so more advanced skills could be added?
- ▶ Are there existing classroom assignments that I could enhance with skills from the checklist skills?
- ▶ Are there some skills that I should share with parents at open houses or classroom teachers during in-service programs?

Conclusion

School librarians can develop a plan of action similar to the one in this article. In collaboration with high school classroom teachers and academic librarians, school librarians can teach their students checklist skills, assess evidence-based checklist results, and make revisions to their information literacy curriculum. The specific information literacy skills college freshmen should know can be the basis for a workable 12-13 skills checklist. In this way, school librarians can help seniors successfully transition from high school to college.

Resources:

AASL/ACRL Task Force on the Educational Role of Libraries. *Blueprint for Collaboration, 2000*. <http://www.ala.org/ala/mgrps/divs/acrl/publications/whitepapers/acrlaasblblueprint.cfm> (accessed February 9, 2010).

American Association of School Librarians. *Standards for the 21st-Century Learner*. American Library Association, 2007. <http://www.ala.org/ala/aasl/standards> (accessed February 9, 2010).

Achieve. *Rising to the Challenge Study: Are High School Graduates Ready for College and Work?* 2005. <http://www.achieve.org/node/548> (accessed February 9, 2010).

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Ford, Barbara J. "All Together Now." *School Library Journal* (April 1996): 48.

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Kent State University. *Transitioning to College*.

<http://www.transitioning2college.org/> (accessed February 9, 2010).

Martorana, Janet, Sylvia Curtis, Sherry DeDecker, Sylvelin Edgerton, Carol Gibbens, and Lorna Lueck. "Bridging the Gap: Information Literacy Workshops for High School Teachers." *Research Strategies* 18 (2001): 113-120.

Owen, Patricia L. "Using TRAILS to Assess Student Learning: A Step-by-Step Guide." *Library Media Connection* (forthcoming).

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Center for Educational Policy Research. *Standards for Success: Understanding University Success*. <http://www.s4s.org/cepr.s4s.php> (accessed February 9, 2010).

Whitmire, Ethelene. "The Relationship between Undergraduates' Background Characteristics and College Experiences and Their Academic Library Use." *College and Research Libraries* 62, no. 6 (2001): 528-540. ◀

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Resources Available

Other school librarians can use the work of Patricia Owen with seniors via her Web site (<http://www.infowen.info/teacherlibrarian.html>). There are several tools and resources to address the information literacy skill gaps of transitioning seniors and links to other resources. For example, on the Web site:

- ▶ Find guest lecturers from area college faculty and librarians (see posted *PowerPoint*).
- ▶ Locate resources to include in a revised information literacy curriculum (see 12-13 Resources).
- ▶ Augment existing lessons with relevant college library orientation materials such as the *Transitioning to College* Web site (<http://www.transitioning2college.org>).
- ▶ Read a college course syllabi study (Oakleaf and Owen).

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