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Information Literacy and the Transition from High School to College

Donna E. Nix
University of St. Thomas, Minnesota, dgillila@aol.com

Marianne Hageman
University of St. Thomas, Minnesota, mdhageman@stthomas.edu

Janice Kragness
University of St. Thomas, Minnesota, jkkragness@stthomas.edu

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INFORMATION LITERACY AND THE TRANSITION FROM HIGH SCHOOL TO COLLEGE

Donna Nix, Reference Librarian (Education),
University of St. Thomas Libraries

Marianne Hageman, Reference Librarian
(Business), University of St. Thomas Libraries

Janice Kragness, Associate Director for
Research and Instruction Services,
University of St. Thomas Libraries

S aint Thomas librarians, concerned with the information literacy skills of incoming freshmen and transfer students, have regularly asked questions about high school preparation for college level research. Have these students had previous information literacy skills instruction? If so, what did they learn? Can anything be assumed—that they know about databases, citing sources, and how to find things in a library? While others have looked at these questions for public high schools and colleges, this article reports on what private colleges might expect of incoming freshmen from parochial high schools.

LITERATURE REVIEW

Most of the published literature on information literacy instruction in high schools focuses on the following areas:

- the need for information literacy programs in high schools (Harris 2003; Minnesota P-20 Education Partnership 2008; Varlejs 2009);
- the skills to be taught in these programs (AASL/ACRL Task Force; Brisco 2006; Julien and Barker 2009; Kinnersley 2000; Latham and Gross 2008; Owen "Head's Up" 2010; Owen "Transition" 2010; Riedling 2007; Thomas 2004);
- the need for assessment of information literacy in the schools (Farmer and Henri 2008; Grimble and Williams 2004; Latham and Gross 2009; Owen "Using TRAILS" 2010);
- the need for, and methods of, effective transitions for student learners from high school to college (Barefoot 2009; Burhanna and Hanson 2006 ; Caspers and Bernhisel 2005; Klink 2008; Ercegovac 2003, 78-81; Fitzgerald 2004; Geiger 2002; Jackson 2006; Latham and Gross 2009; Oakleaf 2008; Oakleaf and Owen 2008; Owen and Oakleaf 2008; Smalley 2004).

The University of St. Thomas (UST) researchers found almost no empirical studies; the few that report on what is taught in high schools focus on national trends, public school students, and state universities' feeder populations (Islam and Murno 2006; Varlejs 2009; Zoellner and Potter 2008). They also found no articles or research concerning private schools.

The researchers also searched beyond the standard databases, finding key sources on the Internet that were not available in the traditional library and education literature, but had been presented at conferences. For example, the

works of Megan Oakleaf and Patricia Owen (Oakleaf 2008; Oakleaf and Owen 2008; Owen and Oakleaf 2008) are key sources, but didn't appear in the published literature until the spring of 2010 (Oakleaf and Owen 2010; Owen "Head's Up" 2010; Owen "Transition" 2010). Similarly, the results distributed at a conference poster session by Zoellner and Potter (2008) have since been expanded into a published article (Zoellner and Potter 2010).

TARGET DEMOGRAPHIC

The literature search revealed a focus on public school students and state universities. However, UST is a private, regional university with a significant feeder population from parochial high schools. A key question for the researchers was, do the information literacy skills of parochial school students attending private colleges differ from the norm portrayed in the literature?

When determining a high school population to survey for this research, the parochial community was an easy group to define. In the state of Minnesota, there were twenty-four parochial high schools at the time of the study, and six Catholic colleges or universities. Parochial high schools provide 18-20% of each freshman class at UST. In Minnesota, these schools are located in urban and small town/rural settings, half in each type. The enrollment varies in size as well, from fewer than one hundred to more than thirteen hundred students. Using this population allowed the researchers to clearly define a target population, and provided results that would be useful to a broad sub-section of the education population: regional and national parochial administrators, teachers, and librarians.

METHODOLOGY

The survey for this study was based on one developed by Ramona L. Islam and Lisa Anne Murno. In 2004, they conducted an online survey of school library media specialists and received 842 responses. Their process and results were published in *College and Research Libraries* in 2006 (Islam and Murno; hereafter cited as Islam). The authors surveyed librarians regarding the skill sets of high school students based on a blending of ACRL and AASL standards (Association of College and Research Libraries 2000; American Association of School Librarians 1998). The survey questions are included as Appendix One. In 2008, librarians at the University of Montana replicated this survey with feeder high schools in their region and also interviewed the librarians in person in a visit to each school (Zoellner and Potter 2008).

The hypotheses for the UST study were that larger schools (of over five hundred students) are more likely to have a full-time library media specialist who is able to develop collections and programs, including comprehensive reference collections; provide effective access to online resources; and develop a formal curriculum for information literacy (hereafter referred to as IL) instruction. Consequently, the students attending these schools will rank higher in IL skills.

This study targeted all twenty-four Catholic high schools in Minnesota and UST's top six parochial feeder schools from Iowa, Wisconsin, North Dakota, and South Dakota combined. Out of the thirty schools contacted, fifteen chose to participate (a 50% response rate). Eleven of the respondents were from Minnesota (eight from the Minneapolis-St. Paul metro area, and three outstate), and four were from other states (one each from North Dakota and Iowa, and two from Wisconsin). Ten out of the fifteen schools had an enrollment of over five hundred students. All of the librarians who responded, except one, were employed full-time.

The researchers used Islam's profile and IL survey components as the basis for the survey, asking questions regarding the school, librarian training and experience, resources (print/online), budgets, library instruction in general, and a section where the librarian ranked students' IL skill levels. The UST study included a site visit as did the Montana study. The questions asked during the site visits are included as Appendix Two.

The UST survey was distributed in October 2009, and 100% of the librarians completed the survey. In January 2010, the researchers visited all of the librarians in order to see the library media centers and had an in-depth follow-up conversation with each librarian.

STUDY RESULTS

The schools were divided in having an information literacy curriculum (seven "yes," seven "no," one "sort of"). They were likewise divided when asked if their seniors were ready for college research (eight "yes," six "no," one "don't know").

The information literacy skills that librarians believed their students were *best* prepared to perform were:
- Behaving in compliance with institutional policy (i.e., netiquette);
- Understanding plagiarism, and using citation styles;
- Communicating in a style that suits the message and audience; and
- Selecting and organizing materials to enhance a final project.

The skills that the librarians believed their students were *least* prepared to perform were:
- Using truncation and wildcards;
- Using technologies to conduct comparative analyses;
- Understanding and using Boolean operators;
- Identifying gaps in research and revising the search; and
- Investigating footnotes, suggested resources, and hyperlinks.

The skill sets that the librarians reported as those they taught *most* frequently are also those that they thought that the students were best able to perform:
- knowledge of plagiarism;
- citation style;
- copyright and fair use; and
- the key skills inherent in determining the value of a source: authority, accuracy, timeliness and bias.

The librarians reported that the skills that they gave *lowest* priority in teaching were:
- forming a thesis statement;
- truncation and wildcards;
- background and cultural context;
- investigating footnotes, suggested resources, and hyperlinks; and
- communicating in a style that fits the audience and message.

Several of these skill sets may be seen as responsibilities of the classroom teacher (thesis statement, for example), while others, like the use of truncation and wildcards, are typically taught by librarians.

There were also some interesting anecdotal comments related to the question, "Are your seniors ready for college-level research? " The librarians were split in their response; eight responding in the affirmative, with six disagreeing, and one response of "I don't know." To the librarians' knowledge, few of the schools do any assessment regarding their graduating seniors' college readiness. Only one of the schools participating in this survey uses the TRAILS (Tools for Real-time Assessment of Information Literacy Skills) survey, designed by Kent State University Libraries, with their freshmen. Overall, there is little assessment of information literacy skills beyond personal impressions. Only one librarian could state with confidence that the IL skills of graduating seniors were "better than (those of students) who had graduated four years ago when we first created a school goal for literacy." Many of those who responded in the affirmative would agree with the respondent who stated that "(returning) students always say they were well prepared for college."

When asked what would make a difference in this response, the answers came primarily in four categories:
- opportunities for the students to practice their research skills, especially in small groups;
- librarian involvement with classes in a wider variety of content areas;
- increased teacher familiarity with online research; and
- the need to hold students accountable for using the best sources available to them.

In a comment appended to her response to this question, one librarian stated: "When we hold (the students) accountable, they are capable of much deeper use of information." Overall, the primary message for getting students to be information literate is encapsulated in this comment: "It's very difficult to compete with Google…it takes time and practice to be a good researcher."

One telling comment reflects what the literature confirms: "Teachers and students lack these skills and only discover their value late in the completion of a project. I think many of my teachers are afraid of the resources that we have."

COMPARISON WITH THE ISLAM AND MURNO STUDY

Islam and Murno's 2004 online study received 842 responses, with all areas of the United States represented, and with particularly high representation of Midwest and rural schools. As mentioned previously, the authors used the AASL/AECT and ACRL standards as the basis for compiling a list of twenty-three skill sets, which in the summary list closely resembles that of the ACRL *Information Literacy Competency Standards for Higher Education.* They grouped these skill sets into the five "standards" which are used in the comparison below.

1. Determine the nature and extent of the information needed.
2. Access needed information effectively and efficiently.
3. Evaluate information and its sources critically.
4. Use information effectively to accomplish a purpose.
5. Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally.
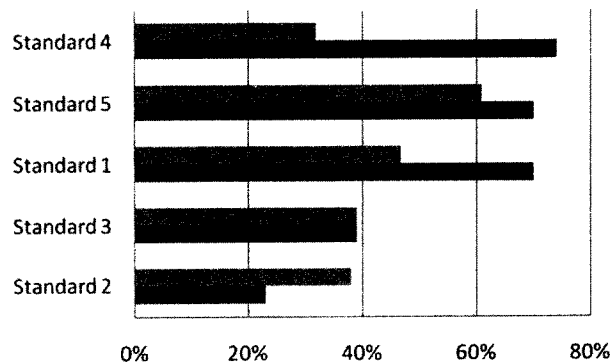
COMPARATIVE DATA ON IL STANDARDS

The number of participants in the UST study (15) was much smaller than Islam (824) and so comparison is difficult; but some trends are evident. In these studies, the percentages were calculated using the results ranking the response at a four or five on a Likert scale. On the first chart, the standards are arranged from high to low based on the UST results. On subsequent charts, the performance indicators for each standard are arranged from low to high based on the UST results.

In comparing the UST results to those of Islam, the school librarians in the UST study scored their students significantly higher in Standards Four ("Use information effectively to accomplish a purpose"), Five ("Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally"), and One ("Determine the nature and extent of the information needed") than those in the Islam study. The librarians in the UST study, however, scored their students lower in Standards Three ("Evaluate information and its sources critically") and Two ("Access needed information effectively and efficiently"). Looking at each of the standards in more depth may supply some reasons for these results.
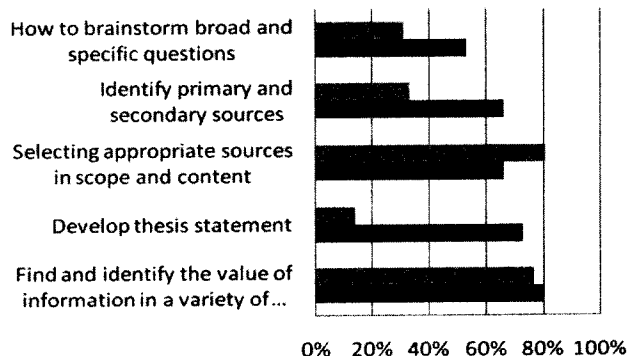
Standard One ("Determine the nature and extent of the information needed") encompasses skills that complement mandated state and federal academic standards, which are covered by both classroom teachers and librarians. In the UST interviews, the researchers noted a fairly uniform lack of knowledge on the part of the librarians about teachers' inclusion of these skills in their classroom instruction. While several of the school librarians asked classroom teachers for assistance in responding to the survey, most responded that they assumed that "teachers take care of the other skills," or would ask for the librarian's help when needed. The higher scores given by the librarians in the UST study may result from the college-prep focus of these parochial schools; there was no limitation to the type of school in the Islam study.

The skills in Standard Two ("Access needed information effectively and efficiently") relate to effective construction of a successful search query. It is disturbing to see a uniform diminution on the scores for the skills when comparing the UST study to that of Islam. Based on the interviews, it is evident that the librarians in the UST study do not make skills in Standard Two a priority in their instruction. Perhaps, given the current ubiquity of keyword searching, these skills are now seen as appropriate for power searchers, and to be taught at the college level.
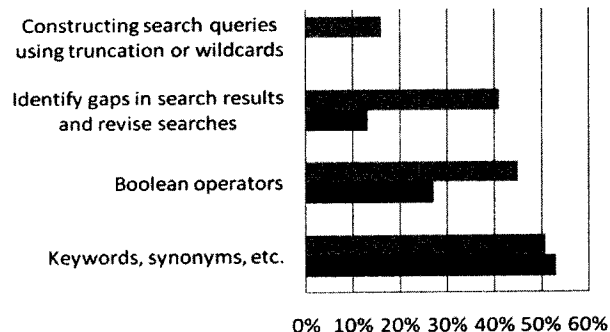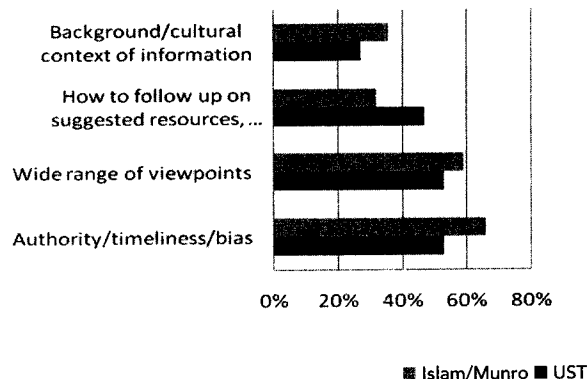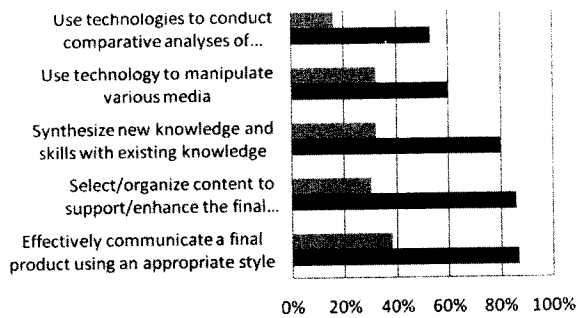

OVERVIEW OF STANDARDS

STANDARD ONE

STANDARD TWO

STANDARD THREE
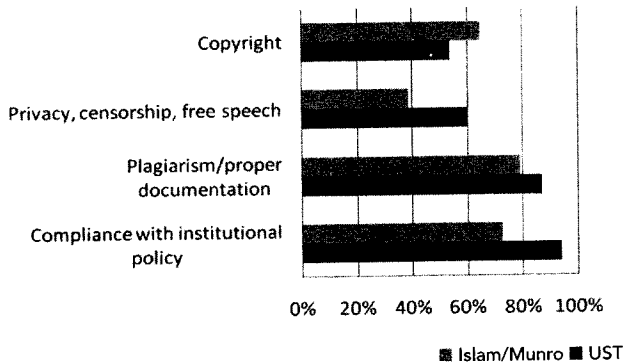
■ Islam/Munro ■ UST

STANDARD FOUR

Use technologies to conduct comparative analyses of...

Use technology to manipulate various media

Synthesize new knowledge and skills with existing knowledge

Select/organize content to support/enhance the final...

Effectively communicate a final product using an appropriate style

0% 20% 40% 60% 80% 100%

STANDARD FIVE

Copyright

Privacy, censorship, free speech

Plagiarism/proper documentation

Compliance with institutional policy

0%   20%   40%   60%   80%   100%

▨ Islam/Munro ■ UST

COMPARISON

"Are most seniors in your school achieving desired levels of IL?"	Islam 2004	UST 2010
Yes	37.84% (n=319)	53.33% (n=8)
No	51.13% (n=430)	33.33% (n=7)
Don't Know	11.03% (n=93)	13.33% (n=1)

The skill sets in Standard Three ("Evaluate information and its sources critically") go beyond the simple gathering of sources. The overall percentage for Standard Three was 53% for UST in comparison of 66% for Islam—near the bottom of the five standards for both UST and Islam. These scores indicate the librarians' view that there is a need for follow-up time with students, since these skills cannot be effectively developed in a single class session. As with Standard One, these skills may also be taught by classroom teachers.

It is clear that the librarians in the UST study see their students as capable of mastering the skills used as benchmarks in **Standard Four** ("Use information effectively to

accomplish a purpose"). The tools provided in the schools (both hardware and software) allow students to choose a communication style, to synthesize materials, and present information in a variety of formats. In contrast with the 2004 study, using technology to enhance presentations is now considered a basic skill of high school students by their librarians.

The skills evaluated in Standard Five: "Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally," have been emphasized by librarians and teachers for decades. Schools have policies for plagiarism, netiquette, and privacy; and students often have to sign compliance forms at the beginning of each school year.

Finally, the comparison between the UST study and that of Islam comes down to this question: "Are most seniors in your school achieving desired levels of IL?" There is a notable reversal in the yes and no responses between the Islam study and UST's. The fact that the schools in the UST study are primarily college prep schools may explain this result. It would be useful to have more case studies that investigate this question, in order to explore what factors influence the result.

OUTCOMES OF THE STUDY

The results did not support the hypothesis that the size of the student body is the critical factor for a successful information literacy program. Although the librarians at the larger schools are able to develop more extensive reference collections, and may have the staff support necessary to create a formal IL curriculum on paper, the program may not be implemented. This occurred in one case due to lack of overall faculty support.

Regardless of the size of the school or library staff, the key factor for success, according to the data, is the integration of the librarian and IL concepts into a few key core courses. This finding is supported by other researchers (Brisco 2006, 44-45; Ercegovac 2003, 80-81; Paglin 2003; Probert 2009; Williams, Grimble and Irwin 2005). In the schools in the UST survey, courses including an IL component were frequently in theology, English, or social studies. While every school is different, the researchers found that eleventh and twelfth grades typically have more advanced research assignments, including, for example, an astronomy class doing research on active galactic nuclei; a project where students analyze bias in a variety of sources; or research papers on topics as diverse as Victorian literature, saints' lives, social justice, and military history.

The interviews revealed that it is important for the librarian to have general knowledge of what is taught in various classes, as well as knowledge of specific assignments with a research component. In the ten schools with the highest enrollment, eight have more than one library staff member, enabling the librarian to spend more time teaching, working with faculty to develop instructional modules, and meeting with curriculum committees in order to better incorporate IL throughout the school.

Other factors can also contribute to a strong IL focus. It is evident from the librarians' comments that it is crucial for the librarian to have a flexible schedule in order to accommodate working with students and teachers. Eight out of the fifteen librarians reported that they worked on a flexible schedule and were able to talk to almost any class at any time. In contrast, one solo librarian interviewed is "stuck" in the physical library space all day: she cannot conduct formal instruction sessions in the library due to the need to hold study halls in that space. Another solo librarian manages separate K-8 and high school libraries in the same building, but is fully scheduled in the K-8 library, and there is currently no IL instruction for the high school students.

The on-site visits proved invaluable when stressing the importance of having teaching technology nearby. Librarians in the study reported much higher interaction rates with the students when computers and other technologies, including special software and smartboards, are located in an adjacent lab or in the library itself. Having at least one computer lab located adjacent to the library facilitates the integration of print and electronic resources during an instruction session and increases the possibility of formal and informal interaction between the librarian and students.

Another factor in the success of information literacy integration into the curriculum is the purposeful inclusion of the librarian in curricular or academic planning, either formally or informally. In response to the question, "Are you involved in school-wide curriculum development efforts?", three responded in the negative, four had occasional involvement, and seven had regular involvement. Only one said that she was fully integrated into the curriculum planning process at her school. That school is currently in the fifth year of having information literacy as a school-wide goal. Based on the research team's observations, this school leads the surveyed group in information literacy implementation.

There is a lack of any formal assessment regarding IL skills at the majority of the schools. In this study, two schools had formal written information literacy programs, only one of which has been implemented. Only one school

uses the TRAILS assessment; some librarians surveyed were not aware of that assessment tool. Without assessment results, it is difficult for the librarians to lobby for more integration into classes or increasing time spent with students. Ultimately, the researchers agree with Islam's statement that "(Although) students are ripe for learning information literacy skills...further examination of survey results suggests that in many cases, adequate opportunities to learn these skills are not being afforded to students in secondary schools" (Islam, 501).

APPLICATION OF FINDINGS

How do the results from this study influence assumptions about UST's incoming students, especially from parochial schools?

The researchers now have a knowledge base of the skill sets that students bring with them to UST. These students should be familiar with the concepts of using an online catalog to find a book, that databases are helpful for finding information on research topics, and that librarians are helpful. The researchers also learned that students are knowledgeable about the perils of plagiarism, and most use a particular citation style when writing papers – often MLA. Citation style is part of Standard Four, which had the highest score for UST participants; using appropriate citation style was the overall highest scoring skill within that standard as well.

The librarians report that many of these students are also being encouraged to use the citation tools in word processing programs and the databases, as well as learning to use software such as Citation Machine and NoodleBib. The most popular, used by ten of the schools, was Citation Machine; several also provide access to NoodleBib and/or EasyBib. Only four of the schools utilized just one citation builder tool.

As a result of this research, UST librarians can use the information about student skills as "scaffolding" opportunities in college instruction. In education, scaffolding is defined as "Coaching or modeling provided by a teacher to increase students' likelihood of success as they develop new skills and learn new concepts" (Ravitch 2007). For example, UST librarians can assume that the majority of incoming freshmen have probably used article and reference databases. In Minnesota and the Dakotas, the high school libraries use many of the same database families as the college libraries. From the survey and on-site visits, the researchers have discovered that these databases are referred to and accessed in a myriad of ways; for example, students accessing the resources found in Academic Search Premier could recognize it by a variety of names: ELM or

ELM4U (names for the statewide database system in Minnesota), EBSCO*host*, Masterfile Premier, or Academic Search Premier. Now that UST librarians know this, the phrase "you may know this database by a different name" will become part of the teaching script. For other discussions of the use of scaffolding in IL, see the articles by Zoellner and Potter, Harris, and Kinnersley.

Similarly, librarians can introduce the concept of using bibliographic management software such as RefWorks by asking about student experiences with Citation Machine, NoodleBib, or other products. Even if students have not used such software, librarians can be fairly confident that, at some time during high school, students did use a citation style, probably MLA, for creating reference lists. Students also have experience using library catalogs to locate print and nonprint materials in school or public libraries. They have experience with the Dewey Decimal Classification, but have little exposure to the Library of Congress Classification system.

What librarians cannot be confident of is whether students are familiar with combining terms or using special search features, revising their searches or following leads from one work to another. Tips for successful searching may need to be utilized in greater depth at the college level.

CONCLUSIONS AND RECOMMENDATIONS

The survey model provided by Islam and Murno, combined with the follow-up site visit model of Zoellner and Potter, proved invaluable. The survey data and face-to-face interactions gave the researchers a comprehensive snapshot of the state of IL instruction in Catholic high school libraries in the region. This will provide a starting point for the UST librarians in redesigning freshman orientation and introductory IL instruction.

Other researchers have proposed that a purposeful link between school librarians and college librarians makes the transition from high school to college smoother for the students (Burhanna and Hanson 2006; Ercegovac 2003, 77-78). The UST study affirms these findings. Catholic schools and colleges have natural affinities; thus it makes sense for those librarians to become partners in teaching IL. For both college and school librarians, the exchange of information is vital, in order to plan instructional programming on both sides. The partnership also provides a needed support network for parochial school librarians. For example, the results of this survey are being used by the participating school librarians for benchmarking purposes:

to provide a rationale for increased partnership with teachers, and to document library needs to the school administration.

For Catholic college librarians, outreach to regional Catholic high school librarians is a useful means of reinforcing the college's relationship with feeder schools. At an institution where Catholic identity is part of the mission statement, focusing on the parochial schools can demonstrate the library's support of that mission.

A key concern for the researchers was whether the information literacy skills of parochial school students attending private colleges differ from the norm portrayed in the literature. As stated previously, the lack of assessment data in general makes answering this question difficult. Islam provides a benchmark, but more empirical research about IL and the transition from high school to college is clearly needed. Perhaps the recent release of the twelfth-grade TRAILS tool will encourage increased assessment and reporting at the high school level, but at this point the bulk of the assessment of high school IL skills seen in the literature consists of reports on self-assessments of college freshmen. Conducting a thorough needs assessment of freshmen college students that is not based solely on self-reporting, as well as surveying the perceptions of the faculty who teach them, seem to be necessary components of any college library instruction assessment project.

Additional research on the nature of high school research projects is also needed. Several librarians in the UST study reported a tendency by teachers to move away from individual to group projects, and away from research papers to multimedia projects. This trend at the high school level would conflict with the findings of Head and Eisenberg (2010), who found that college students are still largely expected to write individual research papers.

The UST study and two others (Varlejs 2009; Zoellner and Potter 2008) examined a small set of schools in a limited geographic area. This research model (or something similar) could be successfully replicated in other geographic areas. In this manner, the library community can effectively build a broader picture of IL practices at high schools. Librarians at Catholic colleges have a unique opportunity to partner with their counterparts at parochial feeder schools to assess IL skills acquisition and assist in the preparation of students for a successful transition to college. ∎

Appendix One

Information Literacy: The Bridge From High School to College Survey

General Information

1. School Name _____

2. Your Name _____

3. Your Title _____

4. E-mail Address _____

5. Phone Number _____

6. High school enrollment grades 9-12 _____

7. What percentage of graduating seniors attend a Catholic college/university (anywhere, not limited to Minnesota)? You may need to get this information from administrative or counselors' offices.

   a. _____ 2009 class

   b. _____ 2008 class

   c. _____ 2007 class

   d. _____ Don't know/not available

8. List the top 2-3 Minnesota Catholic colleges that your graduates attended over this period.

Tell us about yourself and your experience

1. How long have you been working as a school library media specialist?_____

2. How long have you been a media specialist in your current school?_____

3. Are you employed _____ full-time _____ part-time (choose one)
   If part-time, how many hours are you in the library media center per week?_____

4. Do you have a library media specialist endorsement?_____ yes _____ no. If so, when did you receive it?_____

5. How many paid employees work in your library media center (professional, paraprofessional, clerical, technology if part of library services)_____

6. How many adult or student volunteers work in your library media center?_____

7. What is the total FTE for adults working in the media center (paid and volunteer)?_____

8. What library-related professional associations do you belong to?

9. Describe any formal library-related professional development activities that you participate in regularly (at least annually).

10. Please comment on the trend in staffing in your library media center over the last 3 years.

Library Facilities and Resources

1. What is your approximate materials budget for the following materials, in the current or most recent year for which you have complete information?

   a. _____ books

   b. _____ magazines

   c. _____ print reference sources

   d. _____ online reference sources

   e. _____ audiovisual and nonprint resources

2. Please comment on how your budget has changed over the last 3 years.

3. Do students have access to electronic databases (such as, but not limited to, the ELM databases)? _____ yes _____ no. If so, which ones?

4. Do students have access to those electronic databases from other locations in the school? _____ yes _____ no. Explain.

5. Do students have access to those electronic databases from home or outside of school? _____ yes _____ no. Explain.

6. Do you have an online library catalog? _____ yes _____no. If so, what software do you use? Is the same software used for circulation?

7. Which of the following resources are available in the library media center? Check all that apply.

a. _____ Internet access
b. _____ wireless network
c. _____ multimedia projector
d. _____ computer projector
e. _____ interactive white board
f. _____ VCR
g. _____ digital still camera
h. _____ digital video camera/recorder

i. _____ digital video editing tools
j. _____ video editing tools (linear)
k. _____ analog video camera
l. _____ audiocassette tape player
m. _____ document scanner
n. _____ CD player
o. _____ CD-ROM burner
p. _____ DVD player

q. _____ DVD-ROM burner
r. _____ current CD-ROM reference materials (less than 3 years old)
s. _____ current print reference material (less than 3 years old)

8. How many computers for student use are available in your library media center? _____

9. How many other computer labs or facilities are located in your school? _____

10. What is the total number of computers available to students at your school? _____

11. In a typical week, how many hours is your library media center open to students during school hours? _____

12. In a typical week, how many hours is your library media center open to students before and after school? _____

Library Instruction

1. Under what kind of schedule does your library media center operate?

a. _____ fixed
b. _____ flexible

c _____ block
d. _____ other _____

2. Does your school have an Information Literacy curriculum? _____yes _____no

3. During a typical school year, what percentage of teachers bring their classes to the library for formal instruction in using library resources?

a. _____ 0%
b. _____ 1-25%
c. _____ 26-50%

d. _____ 51-75%
e. _____ 76-99%

f. _____ 100%
g. _____ don't know

4. What subject areas are MOST represented among classes brought to the library for formal instruction? Rank the top two.

a. _____ mathematics
b. _____ language arts
c. _____ visual and performing arts

d. _____ science
e. _____ social studies
f. _____ other_____

5. What subjects are LEAST represented among classes brought to the library for formal instruction? Rank the top two.

a. _____ mathematics
b. _____ language arts
c. _____ visual and performing arts

d. _____ science
e. _____ social studies
f. _____ other_____

6. During the course of a typical school year, how much of your time is devoted to formal (whole class) library instruction?

a. _____ 0%
b. _____ 1-25%
c. _____ 26-50%

d. _____ 51-75%
e. _____ 76-99%

f. _____ 100%
g. _____ don't know

7. During the course of a typical school year, how much of your time is devoted to providing informal one-on-one reference assistance or instruction?

a. _____ 0%
b. _____ 1-25%
c. _____ 26-50%

d. _____ 51-75%
e. _____ 76-99%

f. _____ 100%
g. _____ don't know

8. During a typical school year, of the students (grades 9-12) who come to the library to work on an assignment, what percentage has been given the freedom to generate their own research topic, or thesis statement (as opposed to researching a teacher-constructed topic or thesis statement)?

a. _____ 0%
b. _____ 1-25%
c. _____ 26-50%

d. _____ 51-75%
e. _____ 76-99%

f. _____ 100%
g _____ don't know

9. How would you describe your predominant teaching style:
   a. _____ lecture
   b. _____ demonstration
   c. _____ Individual hands-on practice with minimal direction from me
   d. _____ Small group hands-on practice with minimal direction from me
   e. _____ Other—please describe:

10. What are some examples of typical junior or senior research assignments?
    What is the final product of each one (paper, video, slideshow, etc.)?

    Assignment   Final product

Student Preparation

1. Tell us about the preparation of your students for college or university-level research. On a scale of 1-5, how well can most of your senior class students, who have received formal or informal library instruction, perform the following tasks? 1=least well (not at all), and 5=most well (expertly). *In the last column, check at least three of the skills that you focus on in your formal or informal instruction.*

Task	1	2	3	4	5	✓
Developing a thesis statement						
Brainstorming broad and specific questions related to a topic or thesis statement						
Exploring and identifying the value of resources in a variety of formats (book, periodical, internet, video, CD-ROM, etc.)						
Differentiating between primary and secondary resources						
Selecting appropriate resources, in scope and content, to satisfy a specific information need or task						
Identifying keywords, synonyms and related terms describing the information needed						
Constructing a search query using Boolean operators (AND, OR, NOT, +, -), in a variety of online information systems						
Constructing a search query using truncation characters or wildcards (*, $, ?) in a variety of online information systems						
Identifying gaps in information retrieved and revising search strategies as needed						
Recognizing the authority, accuracy, timeliness, and bias of a wide variety of sources						
Consulting sources representing a wide variety of viewpoints						
Discerning the background and cultural context of presented information						
Investigating footnotes, suggested resources, hyperlinks, and cited references						
Using technologies (spreadsheets, graphs, maps, images, databases) to conduct comparative analyses of information retrieved						
Selecting and organizing content (through note taking, storyboarding, outlines, etc.) to support and enhance a final product or presentation						
Synthesizing knowledge and skills gained from prior experience with new knowledge						
Using technology to manipulate various media (images, text, sound, video) in print, analog, and digital formats						
Effectively communicating a final product or presentation using a style that suits the message and the intended audience.						
Distinguishing between fee-based and free online resources						
Defining and analyzing issues of privacy, censorship, and freedom of speech						
Applying copyright and fair use guidelines to the acquisition, use and distribution of information						
Avoiding plagiarism and documenting sources using an appropriate citation style						
Demonstrating behaviors (using passwords, netiquette, respect for intellectual property, use of equipment) in compliance with institutional policy						

2. If you answered 1 or 2 (least well) for any tasks in the table, please briefly discuss why in the space below.

3. How would you describe the general attitude among your high school students toward the value of libraries to their learning, research, or personal development? Choose one response.
   a) _____ Very positive
   b) _____ Positive
   c) _____ Neutral
   d) _____ Negative
   e) _____ Very negative

4. Do you think most of the seniors at your school are achieving desired levels of information literacy at a pace appropriate for the 21st century?
   a. _____ Yes
   b. _____ No
   c. _____ Don't know

Comment

Closing

(For Metro area schools) Are you aware that O'Shaughnessy Frey Library (St. Paul campus) welcomes high school classes to visit the library for research and instruction? _____ yes _____ no

If yes, have you utilized this service? _____ yes _____ no

Please share any additional comments related to topics in this questionnaire:

This survey is based in part on the work of Ramona L. Islam and Lisa Anne Murno, reported in the following article: Islam, R. L., and Murno, L .A. (2006). From Perceptions to Connections: Informing Information Literacy Program Planning in Academic Libraries Through Examination of High School Library Media Center Curricula. *College and Research Libraries*, 67(6), 492-514.

Appendix Two

Site Visit/Librarian Interview Form

General

School _____ urban _____ suburban _____ rural (non-metro) _____

Librarian _____

Tour

Types of activities observed:

Were sample materials obtained from library? Attach to interview form.

Resources and Space

How are books and magazines purchased for your library media center?

How are electronic resources selected? Is the purchasing process different from books/magazines? How?

What databases or electronic resource(s) in your library could you not live without?

What databases or electronic resource(s) in your library do your students like to use the most? least? Why/why not?

Do you know the average age of your print collection? If so, what is it for the following areas?

Nonfiction books _____   Reference books _____   Fiction _____

Are there any nonfiction subject areas you would describe as weak in your collection (these could be in print or electronic form)? How do you compensate for these?

Have the kinds of resources in your media center changed in the last 3 years? If so, how and why?

Seating space for each area (number of chairs)

    Formal classroom instruction _____

    Independent study at tables _____

    Computers in general library space for research use_____

    Computers in labs_____

    Small group conference space_____

    Casual reading area_____

Primary computer platform: _____PC _____Mac_____mixed

Instruction

Do you have an information literacy curriculum? Is it aligned to state or national standards?

Approximately when was it completed or last revised?

What strategies do you use to incorporate information literacy into academic subject areas? Describe how you work with faculty.

How often do you do these activities: Please rank from 1 (low) to 5 (high)	1	2	3	4	5
Instructional planning with teachers before students begin a project					
Teaching information literacy skills cooperatively with classroom teacher					
Teaching information literacy skills alone with no classroom involvement					
Meet with committees working on academic standards or curriculum development					

Comments:

Describe the breakdown of instruction you provide by grade level. What do you focus on at each level?

Grade 9

Grade 10

Grade 11

Grade 12

Are there major changes in the instruction as students move through the grades? Describe them.

Are there topics you feel a need to reteach frequently? If so, what are they?

For Minnesota Schools only

Thinking specifically about the ELM (Electronic Library of Minnesota) resources:

Do you provide access to titles in the K-12 group of databases?

Do you provide access to titles beyond the K-12 group?

Do you teach research strategies for the titles outside the K-12 group?

Do you discuss the transfer of searching skills to college or public libraries?

What other libraries do students use when doing research? Do they have access to any college libraries? If so, which ones?

For Iowa, Wisconsin , South Dakota and North Dakota schools only

Does your state have a statewide database contract program?
If so, are school libraries included, and what databases are provided for schools?

Do you provide access to titles in the K-12 group of databases?

Do you provide access to titles beyond the K-12 group?

Do you teach research strategies for the titles outside the K-12 group?

Do you discuss the transfer of searching skills to college or public libraries?

What other libraries do students use when doing research? Do they have access to any college libraries? If so, which ones?

Internet

Where and how is Internet searching taught at your school?

How do classroom teachers incorporate Internet usage as part of their instruction?

How do you incorporate the Internet into your instruction?

What is the common understanding of the role of the Internet in research at your school?

Assessment

Is library instruction part of your performance evaluation? If yes, in what way?

How do you assess student performance or success in their research for class assignments?

If your school has International Baccalaureate or Advanced Placement classes, do you participate in assessment of projects for those classes? If yes, explain.

Does the school do any assessment of student preparedness for college-level academic research? If yes, please describe.

Do you perform any assessment of their preparation yourself?

Preparation for College Level Research

(Follow up from survey). Describe the type of assignments that students typically have who come to the media center for formal instruction.

By the time they are seniors, do you think most students at your school have the information literacy skills needed for college-level research? Why or why not? What do you think can be done to enhance student preparation?

In summary, what do you see as the most important library-related skills for incoming college freshmen? Explain.

Value

On a scale of 1(low) to 5 (high), how would you describe the general attitude among your school's administration toward the value of libraries to student learning, research, or personal development? Comments:

On a scale of 1(low) to 5 (high), how would you describe the general attitude among teachers at your school concerning the value of libraries to student learning, research, or personal development?

Comments:

On a scale of 1(low) to 5 (high), how would you describe the general attitude among most students concerning the value of libraries to their learning, research, or personal development?

Comments:

Conclusion

[To UST colleagues] Do we have any other follow-up questions from the survey or interview?

[To media specialist] Do you have anything else you want to tell us/show us?

Is it okay if we explore the reference area a bit?

Additional observations from visit

REFERENCES

AASL/ACRL Task Force on the Educational Role of Libraries. 2000. *Blueprint for Collaboration.* American Libraries Association. Accessed September 21, 2010. http://www.ala.org/ala/mgrps/divs/acrl/publications/whitepapers/acrlaaslblueprint.cfm.

American Association of School Librarians. 2007. *Standards for 21st century learning.* American Library Association. Accessed September 21, 2010. http://www.ala.org/ala/mgrps/divs/aasl/guidelinesandstandards/learningstandards/AASL_Learning_Standards_2007.pdf.

American Association of School Librarians. 1998. *Information Power: Building Partnerships for Learning.* Chicago: American Library Association.

Association of College and Research Libraries. 2000. *Information Literacy Competency Standards for Higher Education.* Chicago: American Libraries Association. Accessed September 21, 2010. http://www.ala.org/ala/mgrps/divs/acrl/standards/informationliteracycompetency.cfm.

Barefoot, Betsy. 2006. "Bridging the Chasm: First-Year Students and the Library." *Chronicle of Higher Education* 52, no. 20: B16.

Brisco, Shonda. 2006. "Internet or Databases?" *Library Media Connection* 24 (5): 44-45.

Burhanna, Kenneth J. and Mary Lee Hanson. 2006. "Collaborations for Success: High School to College Transitions." *Reference Services Review* 34 (4): 509-519, www.emeraldinsight.com/10.1108/00907320610716413.

Caspers, Jean, and Steven Mark Bernhisel. 2005. "What Do Freshmen Really Know about Research? Assess Before You Teach." *Research Strategies* 20 (4): 458-468.

Ercegovac, Z. 2003. "Bridging the Knowledge Gap between Secondary and Higher Education." *College and Research Libraries* 64 (1): 75-85.

Farmer, Lesley S. J., and James Henri. 2008. *Information Literacy Assessment in K-12 Settings.* Lanham, MD: Scarecrow Press.

Fitzgerald, Mary Ann. 2004. "Making the Leap from High School to College." *Knowledge Quest* 32 (4) (Mar): 19-24, http://www.ala.org/ala/mgrps/divs/aasl/aaslpubsandjournals/knowledgequest/knowledgequest.cfm.

Geiger, Susan et al. 2002. *From High School to College: Equipping Our Students with the Information Competencies They Need to Succeed.* Palm Springs, CA: Internet Librarian.

Grimble, Bonnie J., and Teresa D. Williams. 2004. "Students' Perceptions of Their Information Literacy Skills in the Media Center." *Library Media Connection* 22 (4) (01): 26-28.

Harris, Frances Jacobson. 2003. "Information Literacy in School Libraries." *Reference & User Services* Quarterly 42 (3): 215.

Head, Allison J., and Michael Eisenberg. 2010. *Assigning Inquiry: How Handouts for Research Assignments Guide Today's College Students.* Seattle, WA: University of Washington. Project Information Literacy, http://projectinfolit.org/pdfs/PIL_Handout_Study_finalvJuly_2010.pdf.

Islam, Ramona L., and Lisa Anne Murno. 2006. "From Perceptions to Connections: Informing Information Literacy Program Planning in Academic Libraries through Examination of High School Library Media Center Curricula." *College & Research Libraries* 67 (6): 492-514.

Jackson, Lydia, and Julia Hansen. 2006. Creating Collaborative Partnerships: Building the Framework. *Reference Services Review* 34 (4): 575-588.

Kent State University Libraries. TRAILS: *Tools for Real-Time Assessment of Information Literacy Skills.* Accessed September 21, 2010. http://www.trails-9.org/. (Sept. 21, 2010).

Kinnersley, Ruth T. 2000. "Electronic Resources in Kentucky High Schools: A Survey of Availability and Instruction for Students." *Internet Reference Services Quarterly* (1): 7-28, http://www.informaworld.com/smpp/title~content=t792306879~db=all.

Minnesota P-20 Education Partnership. 2008. *"The Road Map to College and Career Readiness for Minnesota Students: Final Report and Recommendations Presented to the Minnesota P-20 Partnership."* Minneapolis, MN: University of Minnesota. Accessed September 21, 2010. http://www.collegeready.umn.edu/resources/documents/roadmap_small.pdf.

Oakleaf, Megan. 2008. *"Once More unto the Breach: Closing the Gap between High School and Higher Education."* New England Association of Independent School Librarians, Deerfield Academy. Accessed September 21, 2010. http://meganoakleaf.info/presentations.html.

Oakleaf, Megan, and Patricia L. Owen. 2010. "Closing the 12-13 Gap Together: School and College Librarians Supporting 21st Century Learners." *Teacher Librarian* 37 (4): 52.

Owen, Patricia. 2010. "Using TRAILS to Assess Student Learning: A Step-by-Step Guide. *Library Media Connection* 28 (6): 36-38.

———. 2010. "Heads Up!: A Checklist for Transitioning to College." *School Library Monthly* 26 (8): 8-9.

———. 2010. "A Transition Checklist for High School Seniors." *School Library Monthly* 26 (8): 20-23.

Owen, Patricia and Oakleaf, Megan. 2008. "Using Evidence to Bridge the 12-13 Gap." Ohio Educational Library Media Association Conference, Columbus, Ohio. Accessed September 21, 2010. http://meganoakleaf.info/presentations.html.

Paglin, Catherine. 2003. "Keeping Your Ear to the Ground: Top School Librarians Are Constantly Alert for Ways to Team up with Teachers." *Northwest Education* 9 (1): 14-18.

Probert, Elizabeth. 2009. "Information Literacy Skills: Teacher Understandings and Practice." *Computers & Education* 53 (1): 24-33, http://dx.doi.org/10.1016/j.compedu.2008.12.018.

Ravitch, Diane. 2007. *EdSpeak: A Glossary of Education Terms, Phrases, Buzzwords, and Jargon.* Alexandria, VA: Association for Supervision and Curriculum Development.

Riedling, Ann Marlow. 2007. *An Educator's Guide to Information Literacy: What Every High School Senior Should Know.* Westport, CT: Libraries Unlimited.

Smalley, Topsy N. 2004. "College Success: High School Librarians Make the Difference." *The Journal of Academic Librarianship* 30 (3): 193-198, http://www.el-sevier.com/wps/find/journaldescription.cws_home/620207/description#description.

Thomas, Macy Pickering. 2004. *Information Literacy and Information Skills Instruction: Applying Research to Practice in the School Library Media Center.* 2nd ed. Westport, CT: Libraries Unlimited.

Varlejs, Jana. 2009. *Why Are so Many First-Year Students Information Illiterate? Are Poor High School Libraries at Fault?* Montreal: Workshop for Instruction in Library Use. Accessed September 21, 2010. http://comminfo.rutgers.edu/~varlejs/varlejs.html.

Williams, Teresa D., Bonnie J. Grimble, and Marilyn Irwin. 2005. "Teachers' Link to Electronic Resources in the Library Media Center." *Knowledge Quest* 33 (4): 26-29.

Zoellner, Kate, and Charlie Potter. 2008. *Library Instruction and Resources across the Education Continuum: Assessing the Relationship between Western Montana High Schools and the University of Montana.* Anaheim, CA: Annual Conference of the American Library Association.

Zoellner, Kate, and Charlie Potter. 2010. "Libraries across the Education Continuum: Relationships between Library Services at the University of Montana and Regional High Schools." *Behavioral and Social Sciences Librarian* 29 (3): 184-206.