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Information Illiterates: A Diagnosis & Prescription

A Case Study of 1st Year College Students

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Is information ILLITERACY a local or global issue?

In the U.S., we have many, many intelligent people who nevertheless are not very smart when it comes to information --

There are countries that provide much better education than we do in the U.S. , Taiwan among them

But there may be an information literacy deficit even in Taiwan - ***what do YOU think?***

It is an issue not only in higher education…

But in all of society, whether college educated or not -- information literacy matters if you want

- lifelong learners
- thoughtful voters
- responsible citizens

My purpose today

While information literacy is a concern for all kinds of libraries and educational institutions, I want to focus on a specific academic institution in a specific location.

I want to tell you about some research we did at my university, because what we found out illustrates well the difficulty of solving the information illiteracy problem.

Rutgers-The State University of NJ

Focusing on college, why does information illiteracy matter?

Professors have expectations - they assume that college students are ready to conduct library research

Even when they discover that students are NOT ready, they are reluctant to teach them the process and the resources

Students waste time and do poor research if they have not been taught nor practiced the basics of information literacy in high school

Great Expectations: A Higher Education Accreditation Agency Definition of IL

... an intellectual framework for identifying, finding, understanding, evaluating and using information

…curriculum integrated; learning goal centered

…requires librarian-faculty collaboration

CHE MSA MIDDLE STATES COMMISSION ON HIGHER EDUCATION

ALA American Library Association definition (IFLA's is similar)

http://www.ala.org/acrl/standards/informationliteracycompetency

- Determine the extent of information needed
- Access the needed information effectively and efficiently
- Evaluate information and its sources critically
- Incorporate selected information into one's knowledge base
- Use information effectively to accomplish a specific purpose
- Understand the economic, legal, and social issues surrounding the use of information, and access and use information ethically and legally

My local neighborhood, NJ

New Jersey

Population 8,821,155; 24% under age 18; 20% foreign born; 87% HS grads; average per pupil K-12 cost estimate 2009/10 = $13,800; median household income $69,800 (1:5)

Rutgers-The State University of NJ

Campuses in Newark, New Brunswick, and Camden
More than 58,000 students from all 50 states and more than 125 countries
43,380 undergraduates and 14,800 graduate students
84% of all students are New Jersey residents and 16.2% are from out of state

What is the problem?

Many students arrive at RU poorly prepared to use information resources intelligently

BUT WHY 

There are many good high school library programs in NJ
and many HS librarians are RU MLIS graduates!

Perhaps something is lost in translation, HS to RUL?

OR, are school librarians NOT doing a good job?

Why do we want to study this?

Librarians, MLIS faculty, teachers and professors at all levels need data about the gaps in information literacy that 1st year students show—librarians and educators should be able to address the problem on the basis of evidence

Expected Outcomes

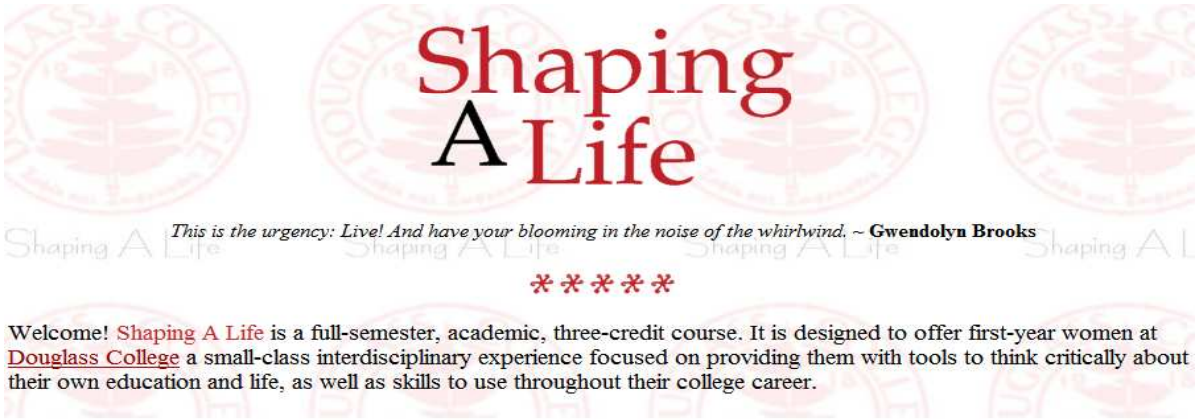
More insight into the HS-college transition gap

Basis for designing more professional development opportunities for teachers and librarians

Possibly greater incentives for RU faculty to collaborate with school and college librarians

An Opportunity: The “Shaping a Life" Course at Douglass College

http://sal.rutgers.edu



An opportunity: The “Shaping a Life” (SAL) course

21 sections, 400+ students

2 library instruction sessions per section

4 assignments + bibliography

Taught and graded by my MLIS students as well as the Douglass College Instruction Coordinator and her colleagues

Earlier pre-test/post-test study by coordinator

Stec paper

Using best practices: librarians, graduate students and instruction

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Abstract

Purpose – To test the belief that only experienced librarians can effectively teach bibliographic instruction, and compare the effectiveness of active learning methods versus usual practice.

Design/methodology/approach – Undergraduate learning was quantitatively measured using a pre- and post-assessment instrument. Two groups of library instructors, degreed librarians and graduate Library Science students participated, reporting the percentage of scripted, active-learning instruction techniques used in classes.

Findings – There was no significant difference in undergraduate learning gains, regardless of instructor type. However, all library instructors using at least 80 percent of the scripted, active-learning techniques showed more undergraduate learning than those instructors who did not use as many active learning techniques. In addition, undergraduate assessment showed few learning gains after participation in two library instruction sessions.

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Library Instruction for SAL

Sessions and assignments were designed to teach:

- Finding books: OPAC handbook exercise (0-3 points)
- Topic focus → concept map (0-4 points)
- Using indexes and databases – worksheet (0-5 points)
- "What makes a journal scholarly" quiz (0-4 points)
- Students also submitted the bibliography for their final paper (0-9 points)

Methodology

During library session 1, students signed a release form and answered 3 questions:

Where did you go to HS? (name and location)

In HS, did you write a paper that required using library resources?

Have you had library instruction at RU?

Methodology, cont.

Student assignment results were aggregated to create a single score per student

Student scores were linked to their high school alma maters

High schools were ranked in order of their graduates' scores

Methodology, cont.

- School librarians in high schools that sent mainly high scoring students to Douglass were identified
- School librarians in high schools that sent mainly low scoring students to Douglass were identified
- Librarians from both ends of the spectrum were interviewed by telephone; other school data were obtained online

Problems with Data

- Needed more students to consent
- Low scorers failed to cluster by high school
- No way to check for consistency in scoring assignments
- No way to attribute differences in section means to SAL faculty or to library instructors

Basic Data

- Total number of students enrolled in SAL: 408
- Number who signed consent, named HS: 257
- Of the 257, no. who turned in the bibliography: 191
- Mean score, 5 assignments, 191 students: 18.8 (75 percentile)
- Mean score for bibliography, 191 students: 4.9 (54 percentile)
- Mean score, excluding bibliography, 408 students: 12.3 (76 percentile)

Basic Data, cont.

Student Scores	No. of Students	No. of High Schools
4 - 19	95	75
20-25	96	68
Total	191	143

School Data by Rank

Schools with higher scorers

ID	Score	Enroll	MLS
7	22.5	1990	Yes
2	21.5	1363	No
9	21.3	2892	No
3	21	2151	No
6	20.3	1079	No
10	20	2643	No
4	20	1622	Yes
8	20	1600	Yes
5	19	1274	Yes
1	18	2259	Yes

Schools with lower scorers

ID	Score	Enroll	MLS
16	17	2241	No
11	14	2253	No
15	14	705	No
18	14	247	Yes
19	14	1410	Yes
12	13	1774	Yes
14	13	2713	No
13	10	3397	Yes
17	6	694	No

Other School Data

Schools with higher scorers

ID	Ltd Eng	SAT	Drop out	% to clg
7	2.0	502	1.1	48.5
2	0.4	550	0.2	74.5
9	1.1	544	0.6	73.9
3	0	530	0	72.0
6	0.5	541	0.6	66.8
10	0.3	517	0.7	72.0
4	0.2	509	1.8	59.8
8	0.4	512	0.5	61.5
5	3.7	507	0.7	64.6
1	1.0	537	0.5	72.7

Schools with lower scorers

ID	Ltd Eng	SAT	Drop Out	% to clg
16	2.6	477	1.9	36.9
11	1.7	444	0.4	52.8
15	1.1	486	1.3	32.7
18				
19	1.0	513	0.4	71.3
12	2.2	495	2.5	63.3
14	9.7	369	4.8	18.6
13	4.9	460	5.1	51.4
17	2.0	498	2.0	70.3

What School Librarians Say About:

- Working with teachers – consultation but little collaboration; "it depends on the teacher"

- Student information literacy – mostly fair (higher scoring); mostly good (lower scoring); "they understand, but they don't fully understand…still "it's on the Internet, it's true"…"they want it quick and easy"

- Recurrent concerns -- lack of time (both teachers and librarians); focus on resources ("most teachers want us to pull the books"); "[students] don't get enough real research"

In conclusion – the diagnosis

- Most librarians know that they should be doing more to foster information literacy, but many feel blocked
  - teachers in control
  - student resistance
  - insufficient resources

- More significant than anything to do with the library program:
  - demographics
  - community values

In conclusion – some prescriptions

Authentic assessment
Continuing education
Partnerships
Demonstration projects
Research
Publicity
Advocacy
Education policy changes

For example, NJ Information Literacy Progression Standards

http://njla.pbworks.com/Progression-Standards-for-Information-Literacy

These standards were developed "for use in New Jersey Colleges and Universities" by academic librarians, working through several professional organizations.

They are practical and useful, and respond to goals of higher education accreditation agencies, as well as American Library Association standards .

Implementation

- Note the endorsements -- they are very important, but are they enough?
- Getting the attention of faculty is important, but is that enough?
- What else should happen?
- How would YOU make it happen in Taiwan?

Thank you!

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Example of concept map