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Teaching Information Literacy Skills Using Problem-based Learning: A Case Study of LibQuest at the Li Ka Shing Library, Singapore Management University

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LIBRARY FAQ

MY LIBRARY ACCOUNT

ORAL HISTORY

NEW ARRIVALS

REQUEST ITEM



Library Facilities

Library continuously improves its space and facilities in response to the dynamic needs of SMU community.

[Learn more](#)

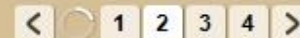
***Our Passion,
Our Commitment,
Your Advantage***

Opening Hours

Mon-Fri 8:00 AM – 12:00 AM
Sat 10:00 AM – 9:00 PM
Sun 1:00 PM – 9:00 PM

Learning Commons open 24/7

Service Hours



In the Age of Google...Partners in Learning

“Whether librarians teach outside the library or not, we need to learn to teach. We should know about learning theories, including multiple intelligences, and how to construct a class so that we reach learners of all abilities...Too many of us focus on what we think is important and not on what students need. We cram too much information into 50- or 80-minute sessions and don't allow time for students to reflect and retain the information.” (Partello, 2005:115)

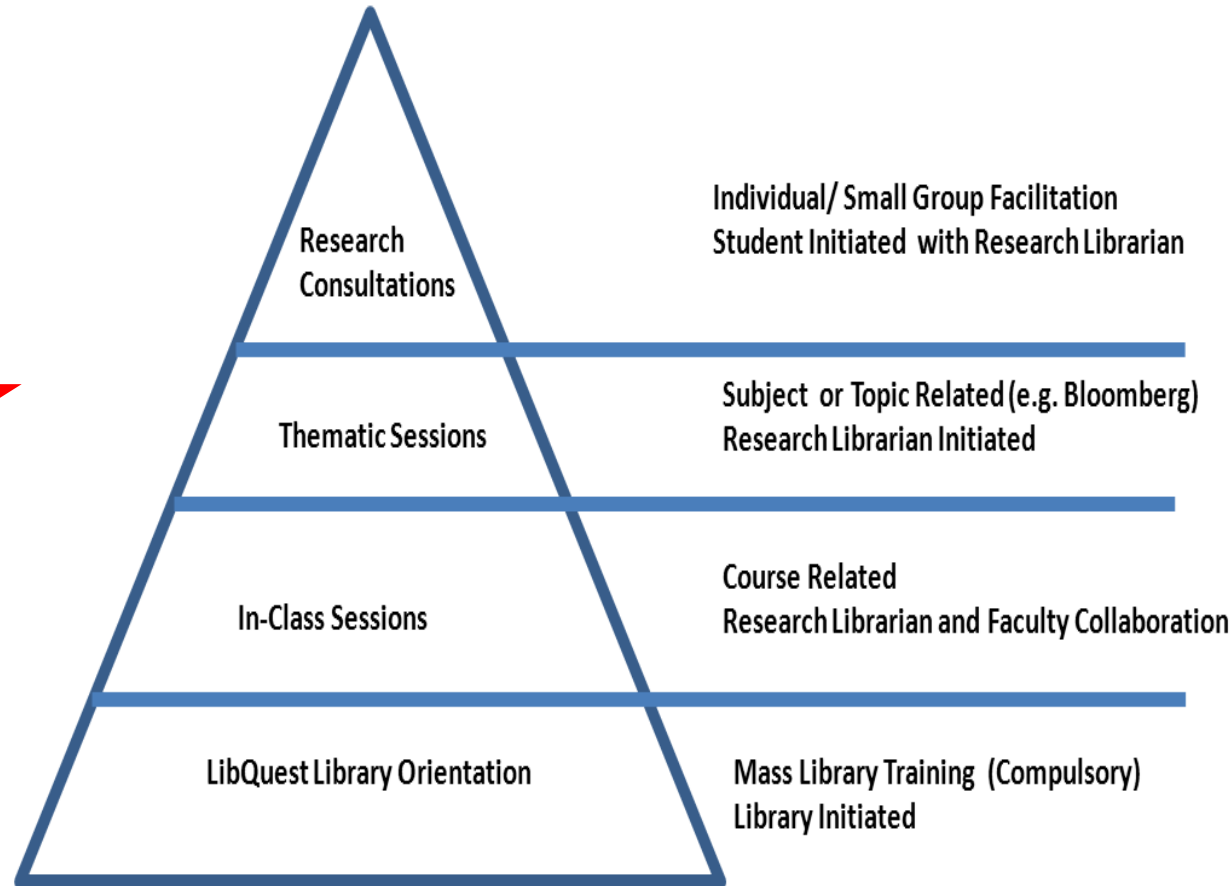
Source: Partello, Peggie. (2005). Librarians in the classroom. *Reference Librarian*, 43 (89/90). Retrieved 15 May 2014 from doi: 10.1300/J120v43n89 08

- Librarians are Partners in Learning
- Triadic Collaboration Students>Librarians<Faculty
- Involvement in Curriculum
- Pedagogical Approaches: Blended Learning; Flipped Classroom, Resource-based Learning
- Instructional Design [ADDIE Model}
- Assessment and Impact [Kirkpatrick’s Training Evaluation Model]
- Information Literacy

Role: Learning

Learning

Research Librarians



**Learning RoadMap: Matriculation [LibQuest] ▶ In-Class Sessions [Customised] ▶
Research Guide [Knowledge Portal] ▶ Research Consultations [Small/Individual Groups]**

Term Time...Just in Time

Week	Programs/Activities	Approaches/Tools
15	Exams	Self-Directed Learning Using Research Guides Blended Learning
12-14	Research Consultations	
9-11	Thematic Training Research Consultations	
8 Recess	Thematic Training Research Consultations	
1-7	In Class Training Academic Writing Research Consultations	
0	Library Orientation	Pre-Survey

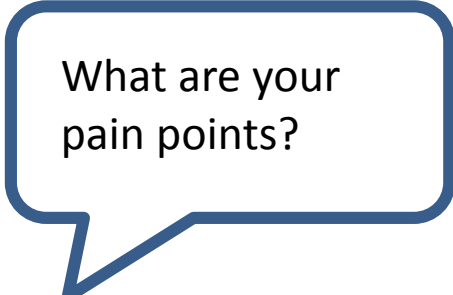
Faculty Collaboration: In Class Sessions

Course Code	Name	Course Code	Name
ECON118	Economic Development in Asia	MGMT003	Business, Government & Society
ECON235	International Macroeconomics	MGMT002	Technology and World Change
ECON 103	International Economics A	MGMT205	International Business
ECON 230	Urban Economics and Real Estate	MGMT215	Work and Family
ECON 239	Human Capital and Economics of Education	MKTG102	Consumer Behaviour
IS101	Seminar on IS Management	MKTG103	Marketing Research
LAW	Legal Research & Writing Curriculum	POSC003	Intro to Politics & Policy Studies
WRIT001	Academic Writing	POSC213	Politics of South East Asia
OBHR101	Management of People at Work	PSYC001	Introduction to Psychology
OBHR001	Leadership and Team Building	FNCE102	Financial Instruments, Institutions and Markets
SSRM001	Research Methods in Social Sciences	FNCE312	Behavioural Finance

Learning to Learn...Information Literacy

Research and Information Skills for the Real World

- The information literate student:
 - determines the *nature and extent of the information needed*.
 - *accesses needed information effectively and efficiently*.
 - *evaluates information and its sources critically* and incorporates selected information into his or her *knowledge base and value system*.
 - *individually or as a member of a group*, uses information effectively to accomplish a *specific purpose*.
 - understands many of the *economic, legal, and social issues* surrounding the use of information and *accesses and uses information ethically and legally*.



What are your
pain points?

IL – PBL Link...Snapshots from the Literature

“The structure of PBL naturally incorporates many of the aspects of information literacy enumerated in the Association of College & Research Libraries (ACRL) Information Literacy Competency Standards for Higher Education.”(Wenger, 2014:144)

“PBL falls into a newer category of active learning techniques that help students to develop higher level cognitive abilities, such as critical thinking and problem solving, through collaborative group work and reflection on their own learning. These techniques take students’ existing knowledge into consideration and emphasize research as an ongoing process.”

(Leibiger, 2011) (Wenger 2014:143)

“However, the literature on problem-based learning in non-professional contexts is less developed and less conclusive about the benefits of using PBL in the classroom.” (Hines & Hines, 2012:20)

Case-Based PBL

While there are many variations on PBL instruction including case studies, Webquests, and simple real-world problems .. They share three core characteristics (Chin & Chia, 2005). First, PBL uses ill-structured problems to guide students learning .. Second, PBL requires that instructors act as facilitators or tutors who guide students towards an answer without providing one themselves .. Finally, PBL techniques generally involves students working in collaborative groups. (Hines, 2012:19)

Case-Based PBL

- Gen Z prefers discovery and a self-paced learning environment
- “Problem Based Learning (PBL) consists of creating real-life problems for students to work on in small teams” (Barrows, 1989)
- PBL addresses the preferences of Gen Z
- “PBL provides the theoretical framework for a learner centered, active instructional experience that relies on collaboration, critical thinking and hands-on interaction with resources”

Source: Sharma, Priyanka and Yuyun W. Ishak. 2013. "LibQuest: A Problem Based Learning Approach to Information Literacy." Presentation at European Conference on Information Literacy, Istanbul, Turkey, 22-25 October. Retrieved from http://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=1035&context=library_research

LibQuest: A Case Study

- Format: Scavenger Hunt
- Where to start search (PYXIS+)
- Differentiating books & articles (reading citation)
- Librarians are student's best friend
- Research Guides
- Knowing the locations & facilities of libraries
- Introduce Library's social media
- Introduce Subject / School Liaison Librarians
- Incorporating information on library etiquette
- Self-assessment
- Learning Outcomes
- This format combines the learning outcomes of the hands-on training and the library tour.

Source: Sharma, Priyanka and Yuyun W. Ishak. 2013. "LibQuest: A Problem Based Learning Approach to Information Literacy." Presentation at European Conference on Information Literacy, Istanbul, Turkey, 22-25 October. Retrieved from http://ink.library.smu.edu.sg/cgi/viewcontent.cgi?article=1035&context=library_research

Lib Quest

You and your new friend are locked in this new and unfamiliar space full of books, computers and comfy chairs. You need to find a way out. Your journey will take some interesting twists and turns!
But, you need to identify yourselves first.

Fill in your student number

Explorer 1: _____


Fill in your student number

Explorer 2: _____

Each correctly executed task will lead you to a clue – which will be one or more letters of the alphabet. Unscramble the letters to create a word – and that word will be your passport to the world outside the library!

Q1	Anthony, R. N. (2004). <i>Rethinking the rules of financial accounting: examining the rules for proper reporting</i> . New York: McGraw-Hill. What is this? Well, maybe PYXIS+ (library.smu.edu.sg) can help you.	CLUE: _____
Q2	There is a place where all the recommended course materials are kept. Most materials here can only be borrowed for 2 hours at a time! Where is this place?	CLUE: _____

LibQuest: A Snapshot

<i>Hint: See Library Services for Undergraduate Students</i>		
Q3	Do you know that a certain entity called “Li Ka Shing Library” has invaded Facebook? Well you know what you need to do... and remember Facebook is just the beginning.....	CLUE: _____
Q4	The next clue is hidden in a room full of printers and copiers. Step into that room, and your clue awaits you there.... 	CLUE: _____
Q5	The last clue is to be found within the “Information Systems Research Navigator”. Is this a compass or something? It is time to ask for help, and no one helps as well as the library staff!	CLUE: _____

Challenge accomplished! The word is _____

You got the passport? You’re sure? If yes, then hand this sheet to the nice library staff at Level 3, Information Desk. If you are correct, they will let you out and give you a gift!

LibQuest...Begins

LibQuest

LibQuest Review: Voice of the Customer

- The hassle, maybe an online training will be more flexible and saves on cost.
- All this could be taught via online courses
- Rather self-explanatory, could be done at home through a program.
- The method it was carried out lacked creativity
- The lesson was too short. I think that a two hour lesson would be better, with more time for in-depth elaboration.

Alignment > LOs

Eight Learning Outcomes

The eight learning outcomes for the BSc (IS Management) programme are as follows:

▶ **1. INTEGRATION OF BUSINESS AND TECHNOLOGY IN A SECTOR CONTEXT**

▶ **2. IT ARCHITECTURE, DESIGN AND DEVELOPMENT SKILLS**

▶ **3. PROJECT MANAGEMENT SKILLS**

▶ **4. LEARNING-TO-LEARN SKILLS**

▶ **5. COLLABORATION (OR TEAM) SKILLS**

▶ **6. CHANGE MANAGEMENT SKILLS FOR ENTERPRISE SYSTEMS**

▶ **7. SKILLS FOR WORKING ACROSS COUNTRIES, CULTURES AND BORDERS**

▶ **8. COMMUNICATION SKILLS**

▼ **4. LEARNING-TO-LEARN SKILLS**

4.1. Search skills

Ability to:

1. Search for information efficiently and effectively

4.2. Learning Methodology skills

Ability to:

1. Develop learning heuristics in order to acquire new knowledge skills (focus on HOW to learn versus WHAT to learn)
2. Abide by appropriate, legal, professional and ethical practices for using and citing the intellectual property of others

LibQuest: A Case Study



LIB001 - Library Research Skills 2014-15

[Home](#) [Content](#) [Grades](#) [Quizzes](#) [Links](#) [Bookmark](#) [Edit Course](#)

Search Topics

Overview ▾

[Print](#) [Settings](#)

- Overview**
- Bookmarks
- Upcoming Events

- Table of Contents 7
- Learning Activity 1 1
- Learning Activity 2 2
- Learning Activity 3 4

Add a module...

Welcome to the Li Ka Shing Library!

LibQuest: Library Orientation

COMPULSORY for ALL Year 1 Students

WHAT IS LibQuest?

LibQuest is the Library's Orientation programme for all new Year 1 students where you will discover the library's resources, programmes and services in the form of a scavenger hunt. However, this year, the library is undergoing some exciting renovations in July-August. The library will therefore provide an 'Online Library Orientation Programme' where students will be required to complete a series of learning activities before the start of the term.

Please complete the 3 Learning Activities.

For General Enquiries email library@smu.edu.sg

> [Add Attachment](#)

LIB001 - Library Research Skills 2014-15

- Overview
- Bookmarks
- Upcoming Events

Table of Contents	7
Learning Activity 1	1
Learning Activity 2	2
Learning Activity 3	4
Add a module...	

Table of Contents

Import/Export Bulk Edit

Learning Activity 1

Learning Activity 2

Learning Activity 3

Add a module...

The Desk

Before you embark on your quest journey, here's some advice for you: this is the desk. Return here and use the resources listed below if you need help!



Complete the Quest

Your mission, should you choose to accept it...

You and your friend are locked in this new and unfamiliar space full of books, computers and comfy chairs. You need to find a way out. Your journey will take some interesting twists and turns! If you're ready... Get out of my office and start your quest! **Good luck!**



Learning Activities

- Overview
- Bookmarks
- Upcoming Events

- Table of Contents 4
- How to Research Information Systems 4
Begins August 4
- Add a module...

Table of Contents

Print Settings

- Import/Export
- Bulk Edit
- Related Tools

Expand All Collapse All

How to Research Information Systems

Starts Aug 4, 2014 12:00 PM

- New
- Add Existing Activities

- Information Systems Research Navigator ✓
- Training for Undergraduates - IS101 - 2014 - Slides ✓
- Information System Research activity sheet 2014 - Answer ✓
- How to Research Information Systems Quiz ✓

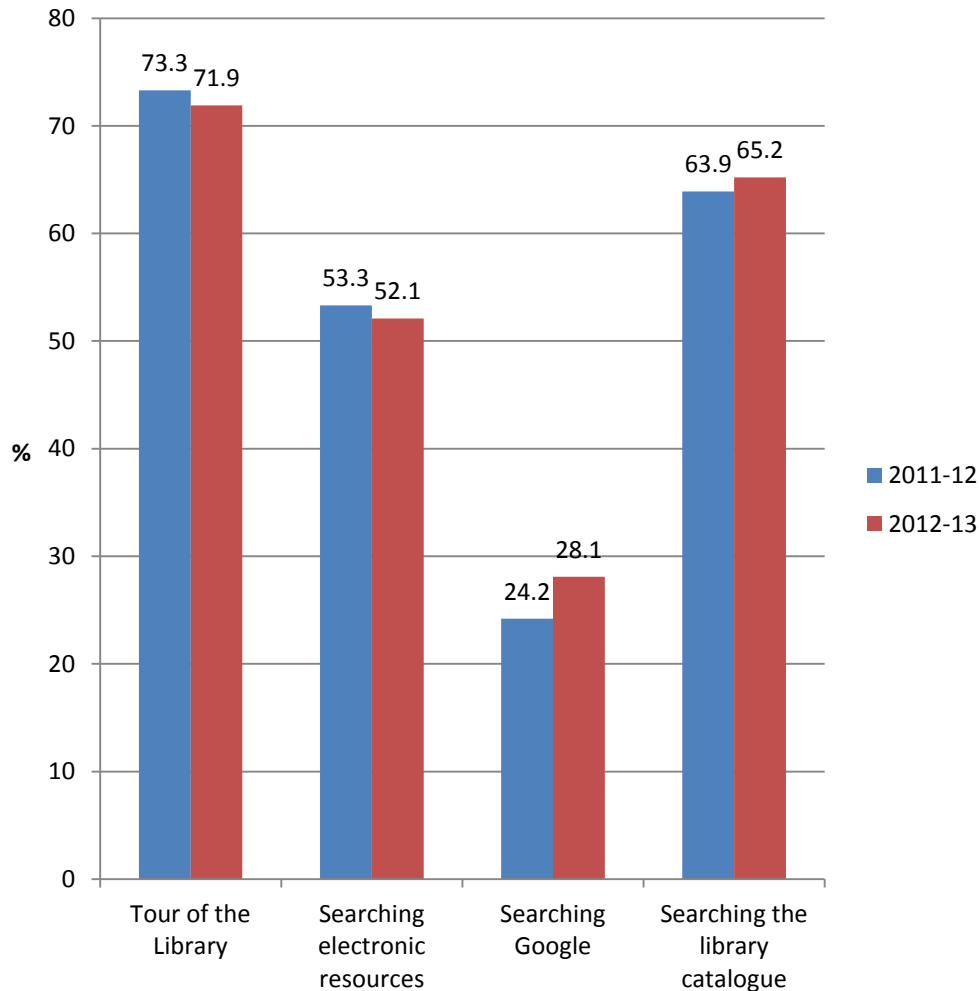
Starts Aug 25, 2014 7:00 PM Ends Oct 30, 2014 12:00 AM

How Much Do They Know Already?

- Analysis: How much do they already know?
- Majority of new students coming to SMU are from Junior Colleges but a small increase in the number of students coming from polytechnics (16%[1] to 18%[2])
- 99% had libraries; public library was alternative
- Average use was 2-3 times a week but after coming to SMU those who indicated rarely (17.3% [1]; 18.9%[2]) used it more daily (22.5%[1]; 22.9%[2])
- Average 77% did not have any training in the use of the library

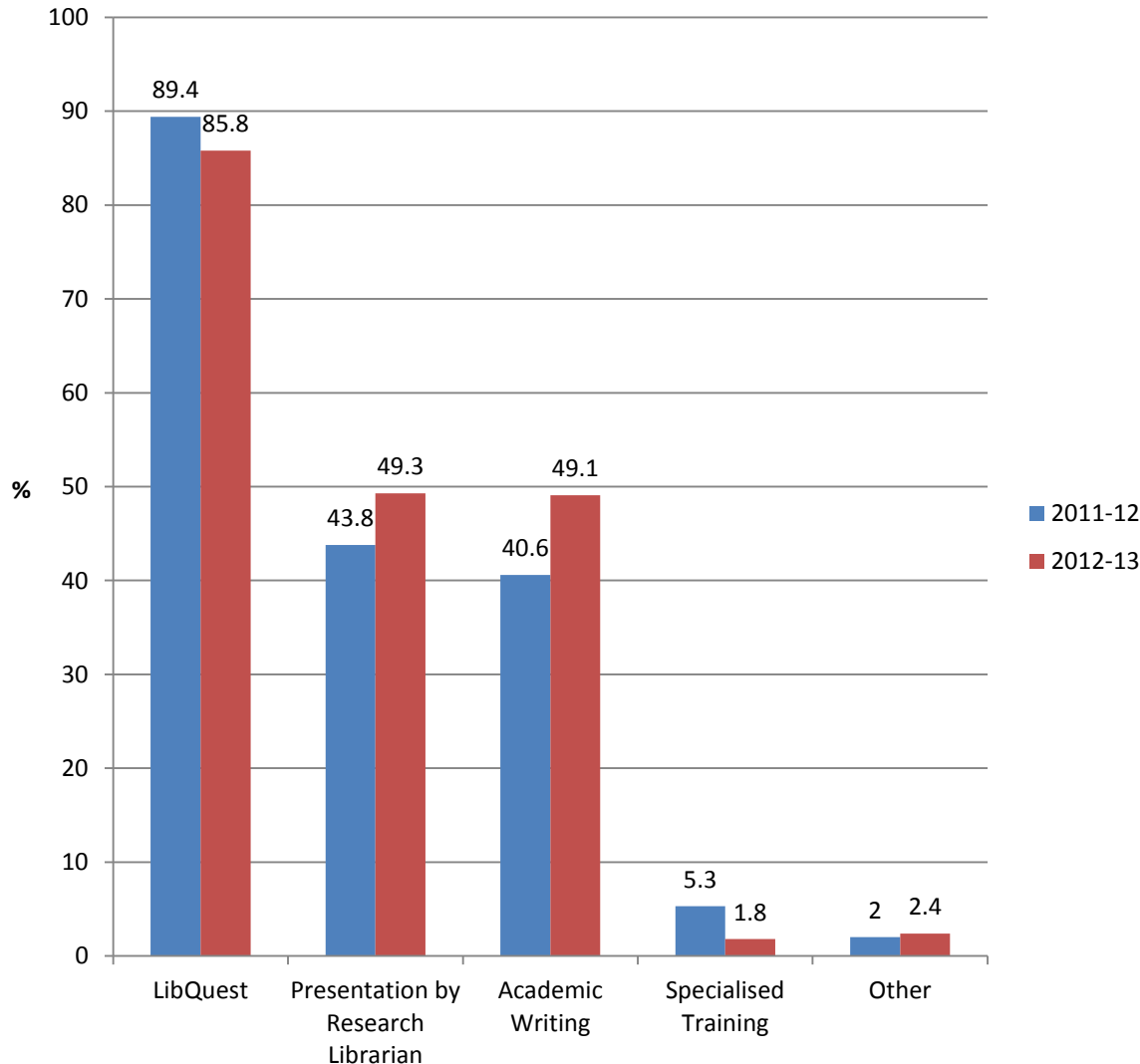
Note: [1] cohort 2011/12; [2] cohort 2012/2013

Before Arriving at SMU



- Schools are offering some form of training
- Traditional areas
- Students coming to SMU have some form of user education
- School libraries recognise that students use Google and hence teach students how to search it.

After Completing a Term

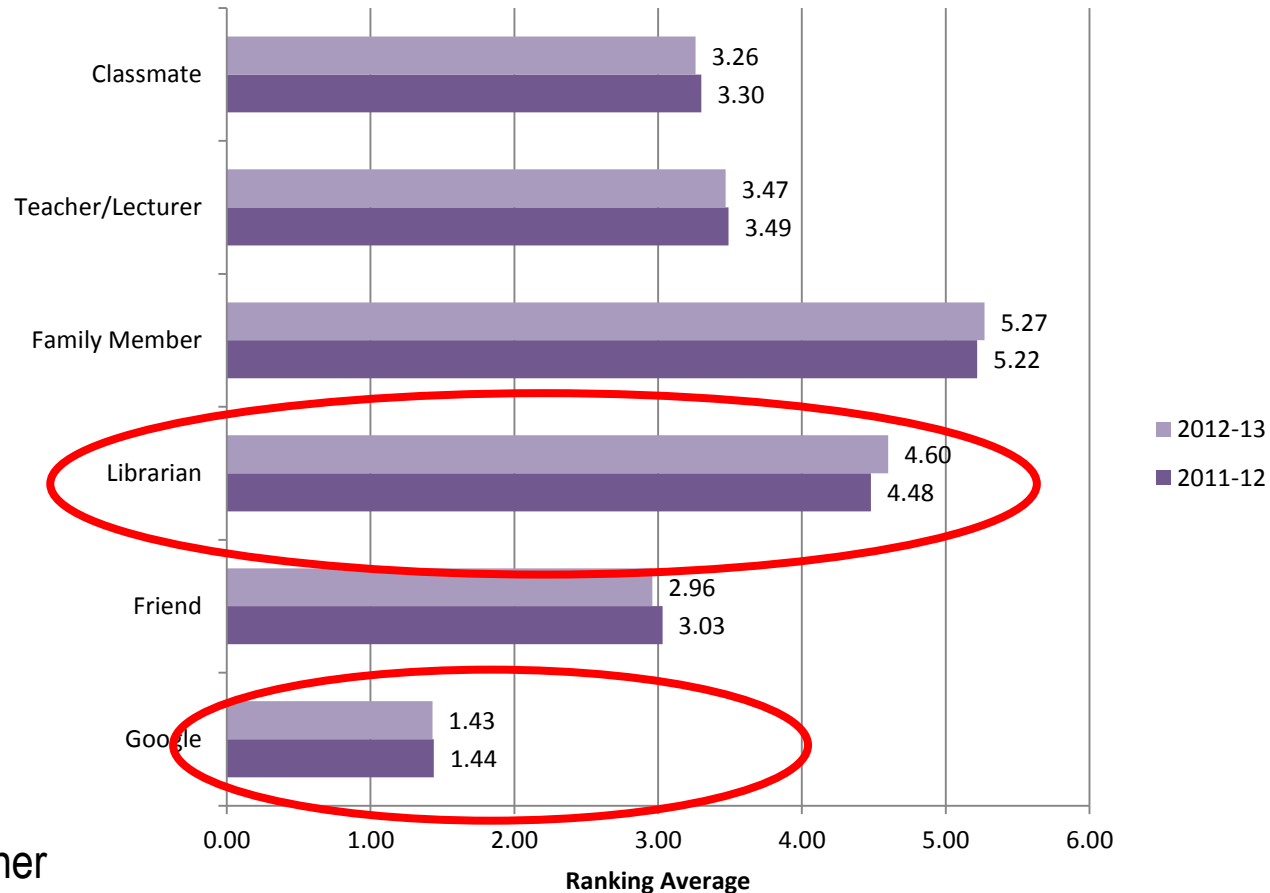


- LibQuest (intake approx. 1,900) during matriculation ranked highest (89.4%; 85.8%)
- Increase in the number of In class presentations (43.8%; 49.3%)
- Academic Writing (approx. 1,500 students)

Asking for Help?

[Ranking: 1 - first source; 6 - last source]

- Ranking in Pre-Survey
- 1st Google
- 2nd Friend
- 3rd Classmate
- 4th Teacher/Lecturer
- 5th Family Member
- 6th Librarian



Post Survey: Librarian Ranked higher

Students understand the role of librarian

Student Engagement and In Class and other Outreach Methods works

The librarian and also found them approachable. But Google is still their best friend perhaps because of convenience

Assessment

We Teaching, But are they Learning?

“Assessments have been recognized as methods used to understand how learning outcomes and expectations have been achieved. Assessments play important role in the learning program to evaluate students’ understanding and application of the research skills and provide evidence and opportunities to improve teaching and learning activities in the future” Xia Wei, Research Librarian, School of Information Systems

- Pre-class quiz, post-class quiz and post-class survey
- Information Literacy Rubric
- Collect both qualitative and quantitative feedback
- Work with Faculty to assign marks/grade

References

- Cook, P. & Walsh, M. (2012). Collaboration and Problem-Based Learning Integrating Information Literacy into a Political Science Course. *Communications in Information Literacy* 6(1), 59-72. Retrieved from <http://libproxy.smu.edu.sg/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edselc&AN=edselc.2-52.0-84871299409&site=eds-live&scope=site>
- Hines, E. & Hines, S. (2012). Faculty and Librarian Collaboration on Problem-based Learning. *Journal of Library Innovation* 3(2), 18-32. Retrieved from <http://libproxy.smu.edu.sg/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=lih&AN=90570658&site=eds-live&scope=site>
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Thank You