

Empowering Students to Develop Information Literacy Skills

Programme Development Experience of a University Library in Hong Kong

Susanna Tsang

I. Introduction

As a Chinese proverb goes: „Give a man a fish and you feed him for a day. Teach a man to fish and you feed him for a lifetime.” In universities, students have to learn to use resources appropriately in order to produce quality research work and assignments. To develop a mental map of creditable information sources is of immense importance to students in their research processes and at different times of information needs. University students need to be able to recognize and formulate information needs, making effective and efficient use of information and resources both within and beyond the university libraries. The problem is, not many students know about all these.

The Library of the Hong Kong Polytechnic University has been taking an active role in developing different means and programmes to help students to develop IL skills. It is committed to empower the University community with skills essential to academic excellence and life-long learning. One of its key aims is to provide high quality instruction in information literacy and develop programmes to sharpen research skills of students and staff.

Information literacy is a set of abilities requiring individuals to „recognize when information is needed and have the ability to locate, evaluate and use effectively the needed information” (American Library Association, 1989).

Starting from the 1990s, library instructions have been centered around developing materials and training classes on the use of a great diversity of online resources in both English and Chinese platforms: library catalogue, bibliographic databases, e-books, e-journals, electronic dissertations, standards, patents, legal resources, newspapers, image databases, sta-

To support students to meet challenges of their academic lives, university libraries are charged with the mission of equipping them with information skills. Library information literacy (IL) programmes bring about materials, tools, personal assistance and instruction aids in a variety of formats available via different platforms and channels. Susanna Tsang presents programme development experience on helping students to develop IL skills and reviews on strategies adopted by the Hong Kong Polytechnic University Library – one of the 8 university libraries¹ in the vibrant city of Hong Kong.

tistical sources, reference tools, financial resources, citation databases, bibliographic management tools, discovery tools, websites and internet resources etc. Online resources have been playing a very important role in instruction programmes.

II. A quick glance at the current scene of information literacy programmes development in university libraries in Hong Kong

There is rather limited literature on the overall scene of information literacy programmes provision in all Hong Kong university libraries. But it does not mean that there are few actions and initiatives. On the contrary, libraries have been engaging in many different types of programmes to support users. Many libraries have developed web-based tutorials, one of the libraries has a one-credit information literacy course, many libraries have started to develop information literacy assessment tools; and all libraries have instructions classes: tailored subject specific classes and open

¹ The eight universities in Hong Kong: The University of Hong Kong, The Chinese University of Hong Kong, Hong Kong University of Science and Technology, The Hong Kong Polytechnic University, City University of Hong Kong, Hong Kong Baptist University, Lingnan University, The Hong Kong Institute of Education.



workshops that are based on themes. Orientations, guided tours, and user guides in both online and in print format are also provided by all libraries. Most programme information and available tools are incorporated in various institutions' homepages for users' reference.

The Joint University Librarians Advisory Committee (JULAC) is the committee of all university libraries in Hong Kong². The Learning Strategies Committee, where issues of information literacy are discussed, is one of the many Committees under JULAC. The Learning Strategies Committee is the continuation of the JULAC Committee on Reference Services. The new name had been adopted in 2011 after a revision of the terms of reference.

The Committee has provided a forum for reference librarians of the 8 institutions to showcase work development, share ideas, discuss and collaborate on initiatives and events. Ideas shared had provided synergies for further programme developments. Over the years, Committee members discussed and participated in the preparation of the initial stages of database consortium discussion, training workshops, product comparisons and selections sessions. There

² The Joint University Librarians Advisory Committee (JULAC) was established in 1967 by the Heads of Universities Committee (HUCOM). It is a forum to discuss, coordinate, and collaborate on library information resources and services among the libraries of the eight tertiary education institutions funded by the University Grants Committee (UGC) of the Hong Kong SAR Government.

had been sharing of experience on the development of online information literacy programmes and online tutorials. Taskforce and work groups were formed to work on specific issues and projects; and libraries jointly organized conference and workshops. Institutes also supported each other to provide information to assist in projects of individual libraries.

Reports were jointly prepared by members from time to time. Many types of information literacy endeavors of institutions were listed on the documents and they have been served as valuable references for all members.

III. Information literacy programmes and the Hong Kong Polytechnic University Library

In the city of Hong Kong lives a population of 7 million within 1.104 km². There are 8 government funded universities. The Hong Kong Polytechnic University is the largest university in Hong Kong in terms of enrollment. There are 29.243 headcount of students in the academic year 2011/12. Altogether there is 1.191 academic and 2.314 non-academic staff. There are 6 faculties (with 25 academic units), 2 schools, a graduate school and 2 centres.

The University Library has a user population of 50.000, 25 professional staff and 119 support staff. Currently there are 2.4 million items, a collection of 360.000 electronic books, 400 electronic databases and 39.000 electronic journals. The Library is situated in a six-storey building with an area of 16.662 m² and has 3.366 seats in total. Enquiries are answered by duty librarians able to speak 3 languages: English, Cantonese and Putonghua.

A. Information Literacy Programmes and Services to Users

Information literacy is recognized internationally as an essential competence for effective participation in education, employment and society. By helping students to develop IL skills, we are preparing them to think critically, use information effectively for their academic, professional and personal lives, access and use information ethically and legally.

„An information literate person is able to:

- 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”
- (Information Literacy Competency Standards for Higher Education, Association of College and Research Libraries, 2000)

Programmes and activities designed by the Library to help students to develop the above qualities could be broadly divided into the following groups. The team of Faculty/Schools Librarians, who are reference librarians of the Information Services Section, are the instructors of the classes and involve in programme design.

1. Face-to-face Instruction Classes

a. Orientation

Orientations are organized for all students including undergraduates and postgraduates. Undergraduate students can join the orientation sessions organized for them at the beginning of the term. Faculties and programme leaders of all programmes can request the Library to delivery Library orientation sessions anytime.

b. Custom made workshops

Upon request by faculty staff, the Library offers customized classes to meet the needs of individual courses. Course-related instruction, conducted by Faculty/Schools Librarians is available to enhance any course within any academic discipline. Teaching staff could work with Faculty/Schools Librarians to decide on the skills that the students required to learn to achieve the specific programme learning outcomes.

c. Compulsory IL module for researchers

Starting April 2010, the Library delivers one module of the Compulsory Subject on Research Ethics for all Research Postgraduate Students. Title of the module is: Ethical use of information in thesis writing: understanding copyright, plagiarism and proper citation.

d. Topical workshops

In 2000, topical Library Workshops had been introduced to the PolyU community. At present, there are 26 topics covering a wide range of topics on databases, tools and resources. These open workshops are components of the Information Literacy Certificate Programme – students who have attended 3 workshops will be awarded a certificate.

[http://myweb.polyu.edu.hk/~lbtsang/Workshops/Topical Workshops Description.pdf](http://myweb.polyu.edu.hk/~lbtsang/Workshops/Topical%20Workshops%20Description.pdf)

2. Online programmes and assistance

a. Online Information Literacy Programme

In year 2002, the Online Information Literacy Programme (OILP) was launched.

There are 4 modules:

- Selecting information sources
- Searching for information
- Evaluating information
- Managing information



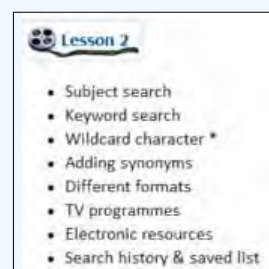
Students who completed the quizzes with an average score of 75% or above will be awarded a certificate.

b. Online tutorials

In 2004, a trilingual virtual orientation programme was developed to help freshmen to get to know the services and functions of the Library.



Other Online Programmes include Searching the Classic Library Catalogue Effectively which shows users how to use the classic Library Catalogue to locate various Library resources.



c. „How-to“-videos

Short how-to videos are designed to be placed at various points of the Library homepage to provide point-of-use assistance to users on the use of resources and facilities, e.g. the use of Simple/Advanced Search and account set up features of library discovery tool OneSearch. <http://www.lib.polyu.edu.hk/researchhelp/tutorials/OneSearch>



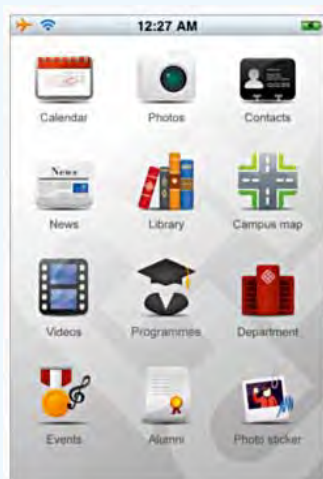
d. Information Signposts and Subject Research Guides

The Information Signposts are created to cater for common information needs of different scenarios of academic lives. Useful links of resources are grouped together under various categories of a special theme of information needs.





Subject Research Guides are prepared to assist users to get started doing research on different subjects. They introduce users to various types of information sources such as books, audio visual materials, journals and databases in the Library, as well as frequently-used sites on the worldwide web.



To assist users' access to the resources and learning programmes, user guides are available online as well as on mobile media. Media like iPolyU App and Library@Smartphone (AirPAC) – Library Catalogue on handheld devices, are available to users. Users can also install a Library Toolbar and personalize it to organize and access Library resources.

B. Programme Development Strategies

1. Programmes are designed for the needs of a broad spectrum of users

There are many types of students in the University. They include: high diploma students (sub degree), undergraduates (bachelor degree), taught postgraduate and research postgraduates (master and doctorate degree). Out of the 29,243 students, 11,575 (40%) are part-time students. More than 15% of the students are non-local students, they are either from overseas or from the China mainland.

To develop class contents to meet the needs of various student groups is no easy task. Our tactic is to provide a broad range of topical workshops, together with on demand tailor-made classes.

To prepare for the topical workshops, there is tremendous difficulty to fit into each individual time-table. It is even more difficult to have man power to teach a large amount of classes. To meet the challenge, the classes are run during term time from October to December and from February to April when most students are preparing for assignment and research work. Many of the workshops of the same topics will be delivered in both 1st and 2nd semester so that more students will have chances to attend them.

The whole array of workshops provided very flexible learning opportunities whereby students could join classes that are useful to them at their time of need. To enable students to find a class suitable for them easily, the classes are categorized into 3 levels: Elementary, Intermediate and Advanced with detailed class content description. Also, there are 2 series: The Core Workshops and the Research Series. The core workshops will equip students with basic skills in searching information. Target users are first and second year students.

Core workshop examples:

1. Surfing the Internet for Useful Information
2. Online Tools for Assignment Writing

The Research Series workshops focused on training students to develop more advanced research skills including use of bibliographic management resources and research evaluation.

There are 3 types of workshops in the Research Series:

- i) For basic research skills
 1. Library Workshop for Postgraduate Students
 2. Accessing Dissertations Around the World
 3. Keeping Your Research Up-To-Date
 4. ISI Web of Science Citation Databases
 5. Scopus for Sciences and Social Sciences Researchers
- ii) For bibliographic management
 1. Basics of Using RefWorks to Handle References and Bibliographies
 2. RefWorks Advanced Workshop
- iii) For research evaluation
 1. Using Journal Analyzing Tools to Evaluate Journals
 2. Using Bibliometric Tools to Evaluate Research Impact
 3. Using Essential Science Indicators to Analyse Research Performance

Incentives to encourage students' participation have been working well. Students have been very receptive of the certificate award arrangement of the Information Literacy Certificate Programme since its inception in Sept 2003.

For those who are not able to join a particular class, they are very welcome to have their instructors to contact their Faculty/Schools Librarian to prepare a tailor-made class for them. For a group of 10 or more, students may request a library workshop on a spe-

cific topic delivered at a time convenient to them. Total number of attendance of all workshops in 2011/12 was over 4.500 students.

Questionnaires we collected revealed that over 95% of the participants rated the classes from good to excellent on a 5 point scale: Excellent – Very Good – Good – Fair – Poor.

Over 90% of participants indicated the class has helped them to develop better skills in information searching and management, and the library instructor has provided them a valuable learning experience.

2. To equip users with skills to use resources in changing formats and platforms

While librarians were fascinated by the acoustic coupler when conducting DIALOG online searches in the 1980s and the use of CD-ROM networks and ink-jet printers in the 1990s; a growing portion of library users today are digital natives who expect information they want is available on their smartphones and PC tablets when they need it.

Over the years, IL programmes have been developed with different foci. Many workshops were conducted in the early 1990s on training users to use the Online Public Access Catalogue (OPAC). The training focus has switched to the use of databases in CD-ROM format toward the end of the decade. As many users have just started to learn to use PC and notebook computers, design of instructions and user guides tended to be: step-by-step use of a particular resource, what keys to press, how to print out search results etc. Most guides were in print format.

Since the growing popularity of using emails and the Internet, web-based technologies have enabled instruction materials to be delivered on a platform where students can use and learn anytime anywhere. The technology made remote access to electronic resources and training programmes possible. The OILP was developed in 2002, and the trilingual virtual orientation programmes were available to all users in 2004 including students studying PolyU programmes in the China mainland.

For face-to-face instruction, classes developed in the 1990s focused on the development of search skills and technical competencies of users. The class usually focused on training on the use of one database: basic search logic, functions and features of databases, e.g. NTIS, Medline, ICONDA etc. Use of thesauri and controlled vocabulary of descriptors and identifiers are introduced in the use of the databases. At the turn of the Millennium, workshops content had been strengthened to include more on information tools, advanced searching skills, use of RSS feature,

exporting records to bibliographic management software, e.g. Endnote, RefWorks etc., setting up of individual accounts and developing search profiles etc.

Toward the second half of 2000, more workshops with the aim to develop critical thinking skills were developed – to identify a number of databases of a discipline, how and when to use them strategically, e.g. workshop like „Finding Research Information for Language Studies“ teaches users to use databases across a discipline: MLA, LLBA, Linguistics Abstracts; and workshop „To Google or Not to Google“, will show users pros and cons of Google, and train participants to evaluate resources with the aim to identify the creditable ones.

In recent two years, taking notice of the short attention span of students from the Google-generation, „how-to“-videos, that last for less than 3 minutes, were produced and placed at positions where help is anticipated.

3. Collaborate with teaching departments and units to develop programmes to support learning needs of students

Library instruction delivered in the context of a discipline-specific course is considered one of the most effective means to enhance students' research skills. However, as IL classes are not compulsory, inevitably, library instruction takes the form of one-off discipline related library workshops from time to time. Yet, there are teaching staff who would like to invite the Faculty/Schools Librarians to conduct the classes for students to learn to use resources. Building on the momentum of established links, gradually, more and more faculty members have included information literacy workshops in their teaching schedules.

In 2009, a scalable Library Information Literacy programme (ILP) had been prepared. This has provided faculty members a quick overview of the components of Information Literacy in a systematic way. Faculties could then identify the areas which are of imminent importance to enhance students' learning of the course to be included in the class.

In recent years, the University has adopted an outcome-based teaching and learning philosophy. We are very much encouraged by the fact that feedback from the post-workshop questionnaires of all the classes conducted in the last academic year indicated that 100% of the classes conducted by the Faculty/Schools Librarians contributed to Intended Learning Outcomes of the courses.

Indeed, there are various forms of integration. For example, IL quizzes accounted for 5% of course project grade in the one of the 3rd year marketing courses

and 1st year Managing Operating Systems course. To pass the Online Information Literacy Programme (OILP), is a compulsory requirement of the Foundation Year Seminar of 3 courses in the Faculty of Business; and the IL exercise of a finance programme accounts for 10% of coursework. A course on research methods in the Department of Building and Real Estate has made the information literacy class compulsory and students must obtain a pass mark on the OILP. Results of the OILP accounts for 10% of the final grade. The OILP also has reached out to many students via a growing number of courses organized by the English Language Centre and teaching departments.

4. Develop programmes to support needs of post-graduate students

Starting April 2010, the Library delivers the module „Ethical use of information in thesis writing: understanding copyright, plagiarism and proper citation” of the Compulsory Subject on Research Ethics for all Research Postgraduate Students.

Focusing on the needs of students who are required to produce theses, the module equips students with knowledge and application details of proper citation and referencing, and provide students with practical advice on aspects of plagiarism and awareness of the copyright issue in the process of knowledge creation. Some 300 Research Postgraduate students are required to attend the session each year.

The delivery of a 2-part workshop is very much an integrate part of the DBA programme since 2010. The workshops aim to equip students with skills to use advance search strategies, search for highly-cited articles, make ethical use of information and use of citation management software.

An information gateway Researchers@Library has been put up on the Library homepage to serve as a one-stop shop of information sources for researchers and postgraduate students to gain easy access to information pertinent to their research and publishing needs.

A handy quick research aid is also available – Resources for Quantitative Research. It is one of our 17 Information Signposts. This Information Signpost attempts to provide basic information for researchers who may conduct quantitative researches which are commonly used to summarize data and describe the relationship found using numbers.

5. Deploying knowledgeable staff with appropriate skills

Substantial manpower resources are dedicated to the design and the running of IL programmes. Cur-

rently instructions are provided by the 7 reference librarians of the Information Services Section who are also Faculty/Schools Librarians.

The multi-various groups of users demand highly skillful teaching personnel. Part-time students returning to university to update their knowledge and skills are highly motivated, but may be not be as tech-savvy as the full time students. Full time students on the other hand, may need more in-class activities to encourage learning. Nonetheless, students need to learn via different learning style each of the departments demand.

When recruiting reference librarians, teaching experience and training is considered one of the important criteria for candidate selection. Relevant subject knowledge of Faculty/Schools Librarians is highly desirable. Fluent in English, Putonghua, Cantonese is also essential. As reference librarians, the instructors would have up-to-date knowledge on the use of e-resources and tools. As they have frequent interactions with users, they would know the common problems faced by most users and thus be able to design appropriate teaching resources and demonstrate solutions to workshop participants effectively.

The reference librarians are encouraged to attend workshops organized by units in the Universities as well as vendors to sharpen their teaching skills, pedagogical knowledge, IT skills and up-to-date information of online products. A Staff Awareness Programme organized by the Library with professional librarians regularly reviewed on recent development in the library and the information arena is also attended by the reference librarians.

C. The Road Ahead

To plan ahead, programmes design and delivery will anchor on the following aspects.

1. Speak the students’ language and to enhance academic literacy

Telling students in plain language how the Library could help them at their time of need, e.g. when they:

- have just been given an essay topic but don’t know where to start.
- are trying to find shortcuts to manage bibliographies.
- are keen to look for resources for assignments that lecturers will be pleased with.

To develop information literacy skills is considered one of the essential elements of academic literacy. Students are expected to be able to think critically and analytically; and to express ideas clearly in the appropriate academic style. In the four main areas of

reading, note-taking, writing and referencing, IL skills training is the role that the Library would play best to support students to improve their level of academic literacy.

2. Integrate IL components into teaching programmes

In recent years, Hong Kong is in the process of an extensive educational reform – moving from a three-year to a four-year undergraduate degree system (with six years of secondary education). In the new academic year of 2012/2013, new programmes will commence. There will be room for discussion with faculties on the further integration of the IL programmes.

Focusing on the needs of the new four-year teaching schedules, the IL teaching materials have been redesigned and toolkit further enhanced. More activity-based content will be developed for instructors to carry out outcome-based activities in class to achieve

intended learning outcomes. Contents of each of the classes are designed to meet sets of ACRL learning outcomes listed in the Information Literacy Competency Standards for Higher Education, Association of College and Research Libraries (2000). Faculty/Schools Librarians are to step up their participation in departmental meetings so as to build up their knowledge and understand more of faculty's needs to facilitate the design of programmes.

3. Develop Programmes to be available on expanding media and platform

The existing non-platform specific online information literacy tutorial (OILP) will be transformed: new ones

are to be developed to run on the Learning Management System (LMS) – Blackboard. Making use of the available features of Blackboard, the new programmes would be more easily to integrate with other online learning materials and could instantly merge with the existing assessment module on the system. To reach out to users, we will monitor closely the preference and habits of the digital natives in the academic world. Short how-to videos, online guides will be produced and designed to suit a variety of platforms and made available extensively on mobile devices. The use of mass email, twitters, library toolbars, QR code etc. to promote programmes and services will also be continued.

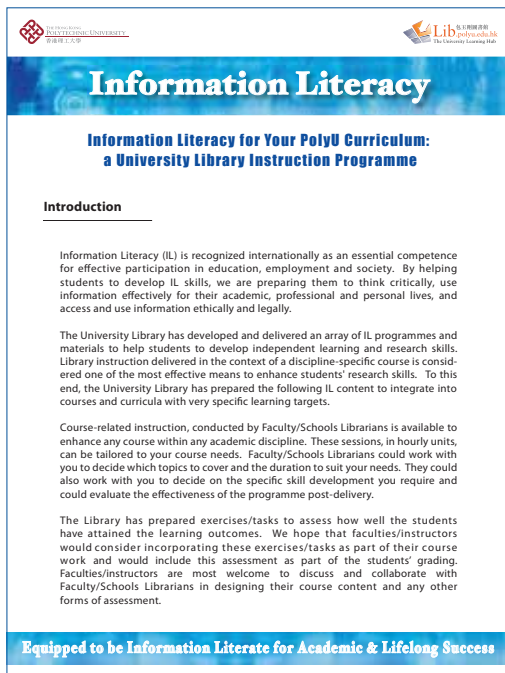
4. Training of the team of instructors

The team of instructors will participate in the ACRL immersion programme to be conducted in the coming year in Hong Kong to refine teaching, programme development and faculty liaising skills. It will be a valuable opportunity where participants coming across various continents meet and bring with them their expertise to share and to learn during the event. More vigorous teaching for new librarians will be done and they are expected to complete the Introduction to University Teaching programme offered by the Education Development Centre of the University in the first year of employment, so that they could speak the same language of the team and assimilate as soon as practicable.

IV. Conclusion

Leverage on the experience that we have gained through the development of the various types of programmes we have set up in the last two decades; we have identified the basic tracks to move on. It's a matter of time to make use of the perceived success factors and grasp opportunities when they come along to make another step into the future.

We will continue to anticipate barriers. One of which would be the difficulty in persuading faculty members to integrate information literacy components into curriculum extensively. Very much agree with Wooliscroft that many programmes will still have to offer outside the curricula. It is thus even more important to ensure that IL programmes are of high quality and



http://www.lib.polyu.edu.hk/InformationLiteracy/il_eng.pdf

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that student to perform capably will be evident in time. (Wooliscroft, 1997)

It is essential for the library to be aware of the direction of the University, the associated teaching and learning requirement and the trend in pedagogy development. Liaise with key players of the units are also of imminent importance, as it would lead to collaboration with units in activities that could be part of the teaching programmes. It is only with a thorough knowledge of curricula, teaching expectations, students' learning style and the available resources, that programmes and facilities designed would match students' needs and help them to become effective learners and critical thinkers. ■

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