The paper begins with an introduction defining the term "information literacy" and goes on to analyze the need for information literacy education in China. It also presents a detailed description with examples of how China's public libraries are cultivating citizens' information literacy. The experiences prove that the public library is the proper place to nurture citizens' information literacy, and that information literacy education can promote the exploration and utilization of information resources. In conclusion the paper proposes some practical methods concerning the further improvements in information literacy education. (Contains five references.) (Author)
The Public Library and citizens’ information literacy education in China: a case study of Wuhan area, China

Li Jingxia
Associate Research Librarian of Wuhan Library
Wuhan Library
Wuhan, China
E-mail: jingxiali@sina.com.cn

Abstract:

The paper begins with the introduction the term ‘information literacy’ and analyses the need for information literacy education in China. It also presents a detail description with examples how the China’s public libraries are cultivating citizens’ information literacy. The experiences prove that the public library is the proper place to nurture citizens’ information literacy. The work on information literacy education can promote the exploration and utilization of information resources. The paper also provides an opportunity for people to realize the value of the public library. In conclusion the author proposes some practical methods concerning the further improvements in information literacy education.

Key Words: Public Library, Information Literacy Education, China

Introduction

Since the 1990s, the rapid development of computer network technology and telecommunication technology has brought about great changes in human society. Particularly, the application of the Internet
is further influencing every aspect of our society and bringing us new ways to work, study and live. This
technology development also sets higher requirements for our competence in utilizing information. At a
time when information is growing at exponential rates, people's disparity in information possession will
cause a widening gap: some are in favorable positions with rich knowledge and high levels of skill, while
others are in unfavorable conditions due to lack of information access. To lessen this disparity as much as
possible, and supply comparatively equal opportunities for utilizing information, many countries have
proposed information literacy education as a means of enhancing citizens' information access and ability
to use information.

Definition

The term 'information literacy' was first put forward by Paul Zurkowski, president of the American
Association for the Information Science, in 1974. Its basic definition is 'the ability to find, evaluate and
use information'. With the fast-paced improvement of information technology and the continual
emergence of new information resources, people are increasingly aware of information literacy, and the
original definition does not completely reflect the full connotation of information literacy. Therefore,
many scholars have extended this definition, and the American Library Association characterises an
information-literate person as follows: 'must be able to recognize when information is needed and have
ability to locate, evaluate, and use effectively the needed information.' Ultimately, Information literate
people are those who have learned how to learn. They know how to organize, how to find information,
and how to use information in such a way that others can learn from them. They are people prepared for
lifelong learning, because they can always find the information needed for any task or decision at hand.'
Thus information literacy describes people's information performance, self-study competence and critical
thought. Information literacy is a primary quality that every citizen should have, just like traditional ability
to read, write and calculate. Only those with good information literacy can successfully adapt to the
constant changes in society, so helping citizens to achieve information literacy is becoming an important
goal in many countries.

The Necessity for Information Literacy Education in China

The first Chinese TCP/IP link to the Internet was established in May 1994 in the Institute of Higher
Physics (IHEP), Chinese Academy of Science. China is the 71st country to connect with the Internet. In
recent years China's development as an information society has progressed rapidly. The Chinese
government attaches great importance to the construction of information infrastructures and has
established CHINANET, CERNET, SCTNET, CHINAGBN, UNINET, etc. According to statistics
provided by the Information Center of China Internet, at the end of 2001 there were more than 12,540,000
computers linking directly with networks; there are more than 33,700,000 users, which puts China's
communication network in 2nd place in the world. On the other hand, China is still a developing country
with population of about 1.3 billion and living in 9.6 million square kilometers. According to the 5th
National Population Census in 2001, in every 100,000 persons 3611 receive a university education, 11,146
receive secondary school educations. Many people lack competence in information technology, and in a
time of surging information growth they are at a loss. Consequently, they cannot successfully search for
needed information, and waste much time, energy and money. When they have information demands,
some are unable to use the resources in the library; and many do not even know the functions or location
of the library. This results in inefficient utilization of libraries and information. In technology innovations,
90% is synthesized from the work of others, and only 10% is originated by the researchers. It is clear that
the development of creativity is directly affected by information collection, utilization, processing and
analysis. Creativity is essential in national development.
Main Practice and Experiences in Chinese Public Libraries - A Case Study of Wuhan Area, China

The library has a wonderfully evocative title - 'The University Without Walls'. Launching social education is one of the significant functions of libraries, especially public libraries. In 1994 UNESCO and IFLA jointly issued 'The Public Library Manifesto' which stipulates that public libraries should 'support not only the regular education but also the individual's self education at all levels'. The Provincial/Autonomous Region/Municipal Library Work Rule, which was formulated by the Chinese Ministry of Culture in 1982, also clearly points out that 'libraries' chief task is to spread science and knowledge, and improve people's scientific and cultural level'. Launching social education is the public library's responsibility. In the long run, Chinese public libraries need to strengthen reader education in utilizing libraries. The rapid development of information technology has changed the people's ways in exploiting information, and information literacy education is revolutionizing library work. To describe the Chinese public library approach to information literacy education, I shall take my own library, which represents the common situation in China, as an example.

Wuhan lies in the central part of China with a population 6,000,000. It is a well-known city of cultural and historic significance, and one of the largest commercial, financial and educational centre, as well as an important center for scientific research. In the Wuhan area there are 16 public libraries, which include Wuhan Library, Wuhan Municipal Children's Library and 14 district libraries. Additionally, we also have 150 residential community libraries.

Since the country's reform program began in 1978, great changes have taken place in Chinese public libraries. Local government attaches great importance to the development of libraries. The grand opening of our library new building is a good example. This new building cost 20 million Yuan. It covers a total floor space of 32,975 square meters, with 2147 seats. It has a range of reading rooms for printed documents, electronic publications, multimedia service, experts' research rooms, training centre and a computer centre, etc. Its computer network system uses Ethernet, and the host computer server is an IBM RS/6000 H70. It uses advanced routing system technology and the products of IBM ACS. The whole library has more than 1000 information access points, which are distributed throughout the building and connected with the Internet. The network service of our library enables the readers both inside and outside to access resources on the Web and the LAN.

The building is also equipped with many advanced facilities, such as a central air conditioning system, security control system, fire-fighting and alarm system, etc. And some special facilities such as the specialized passageways and toilets are installed for the handicapped. The modern and quiet study atmosphere of the library regularly attracts hundreds of readers every day, and the new library has become an important place for spreading knowledge. This new building and the improved means of information access also bring us a new challenge, that is, how to make good use of these advantages to help more readers utilize information efficiently.

Reinforcing Citizens' Ability to Utilize Libraries and Information Effectively

Since 1978, libraries have built or extended their buildings, and today public libraries in China account for more than 4,000,000 square metres. The libraries are mostly located in the centre of residential areas. Their surroundings are beautiful, and buildings are graceful. Inside it is quiet, neat and 'civilized'. The new building of Wuhan Library is located in a famous street, which is well known for its commercial institutions. It is novel in its outward appearance, which looks like an opened book. Inside the environment is graceful, and there are many sofas and chairs in the corridors on each floor, and there is a café as well. In the reading rooms scientifically designed desks and chairs are offered to the readers. The librarians are in uniforms, speak civilly and offer services to a high standard. In order to guarantee that each person can equally enjoy the library's service and utilize information, we take the following
measures:

1 Library cards and reading privileges are free of charge. In each reading room readers may enjoy open-shelf reading, namely, they may choose the books from the shelves, and just need to return them to book-carriers. Card-holders can borrow or return books in a matter of seconds through computers installed in the reading rooms. This offers readers more freedom to select books and stimulates readers’ initiatives. In order to bring more convenience to readers, we have a policy of year-round service, 84 hours a week. We also offer a special service for handicapped and elder citizens, such as household service.

2 To help citizens understand the value of the library, we use newspapers, radio, TV and other media to publicize library activities. More than 130 reports on Wuhan Library have been carried in the local newspaper, on the local radio or TV. This year Wuhan Library and the local newspaper jointly solicited articles and the topic, ‘Library and I’. Thousands of readers retell their own stories of how they have used the library and to what a degree the library has helped them with their study. For example, in one article, ‘The Holy Palace That Helped Me Grow Up’, the writer tells the experience of growth from a middle school student to a Doctor of Literature and high-ranking official. He concludes in his article, ‘I know well that my achievements have much to do with Wuhan Library. I have no words to express my gratitude towards it.’ We also have a monthly column in the reading section of the local newspaper that serves as a reader’s guide and discussion of bestsellers.

3 We work to develop the library’s potential readers. Since our new library was inaugurated, it has opened to middle school and elementary school students regularly on Saturday. It has received more than 8000 young readers for more than one year and assigns a librarian to explain the library’s service facilities and instructions to them. We also hold different kinds of reading activities with schools. For example, the annual composition event, ‘Chucai Cup Competition’, has become an international activity, attracting more than 8000 middle and elementary school students every year, including students from America, New Zealand, Australia and Britain. To organize middle school and elementary students to visit the library is one of the best way to nurture potential readers. Through it we can develop their interests in the library and help them become the library’s devoted readers all their life.

4 We try to involve readers in the library’s professional work. It deepens the readers’ understanding of the library and its significance. We hold a readers’ forum once or twice in a year, provide a blackboard newspaper of the readers’ reflections and a readers’ garden to discuss reading activities. At the beginning of last year, we tried to recruit library volunteers from community. When this news was announced, there were 226 people enrolled in just three days. Volunteers of different ages and levels now participate in the library’s auxiliary work.

5 We send books to households. We use the book mobile to provide troops, prisons, villages and communities with books, to organize reading activities, recommend booklists, hold reading sessions and other activities. This year we have helped four communities set up libraries and have donated some books to them, and also exchange books regularly. This helps many more citizens for whom visiting the Wuhan Library is inconvenient.

Helping Citizens Acquire Information More Conveniently

Libraries collect an abundance of documents and other resources, including printed documents, CD-ROM databases and micro documents. The public libraries cover various fields that cater to the varied needs of their readers. According to the Chinese library statistics at the end of 1999, the general conditions of various documents and reference materials in Chinese public libraries is as follows:
Wuhan Library has a total collection of 1.5 million volumes, and a great many databases, such as Tsinghua Academic Periodicals, Wangfang Database, Weipu Database, etc. We use these information resources to providing various information services.

1 A newspaper cutting service. To give the readers wide information and save their time, Wuhan Library collects applicable materials from the collection, collate and publish lots of brochures, which extract contents concerned the books, periodicals and newspapers. In accordance with the requirements of different readers, we have divided these into two categories: (A) Policy-making references. This service is provided to the government-policy making departments, and the contents include situation analysis, viewpoints, social trends, etc. (B) Economic department references. This concentrates on agriculture, commerce and science and technology, and covers special subjects, such as “Breeding Fish”, ‘Financial Information’, ‘Supply and Marketing’, etc.

2 Bibliographies and indexes on special topics. Wuhan Library compiles these on special topics. They have included ‘Chinese and Abroad Famous Work’, ‘The Intensive Reading Booklist’, ‘How to Face the Knowledge Economy’, etc.

3 Reference information for the self-learners. Many people frequently came and borrowed books about lawyer’s qualification tests, etc. Recognizing this situation, Wuhan Library has developed a CD-ROM that contains related reference books, test information and sample tests.

Helping Readers Utilize Information through Technology

We have allocated considerable funds for constructing computer and communication equipment. At present, many public libraries have built their own LAN, through which they can connect with the Internet and can also provide information services with their CD-ROMs. Modern equipments have been integrated with traditional information collections and processing technology. In the Wuhan area 14 city district public libraries have connected to the Internet, and a local network has been built up, which covers all the public libraries in Wuhan.

1 Reading guidance system. Wuhan Library provides a library sketch map at the entrance and multimedia reading guidance in the catalogue hall. In this way, the readers can have a clear picture of the library’s history and situation, service items, the floor plan, the methods of searching or borrowing books, procedures in handling the readers’ card, charging standards, opening time and even the toilet, lift and telephone locations. In the catalogue hall, there are 18 computer retrieval stations beside which the readers can find specific instructions on using the computers. Having found the documents online, they can make a note of the book collecting area with the prepared paper and pen, and they also can print a list on the printer through computers. The librarians offer assistance when difficulties arise.

2 Reader assistance. For the sake of the readers’ smooth online searching and reading, Wuhan Library

### Total Collection (Thousands of Volumes)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>395387</td>
<td>271601</td>
<td>54833</td>
<td>13624</td>
<td>891</td>
<td>26698</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>66329</td>
</tr>
</tbody>
</table>

### Compiling Secondary and Tertiary Literatures

- Books
- Presses
- Micro Document
- Audio-Visual Document
- Others
- Compiling Secondary and Tertiary Literatures

$$Wuhan\ Library\ has\ a\ total\ collection\ of\ 1.5\ million\ volumes,\ and\ a\ great\ many\ databases,\ such\ as\ Tsinghua\ Academic\ Periodicals,\ Wangfang\ Database,\ Weipu\ Database,\ etc.\ We\ use\ these\ information\ resources\ to\ providing\ various\ information\ services.\n\n1\ A\ newspaper\ cutting\ service.\ To\ give\ the\ readers\ wide\ information\ and\ save\ their\ time,\ Wuhan\ Library\ collects\ applicable\ materials\ from\ the\ collection,\ collate\ and\ publish\ lots\ of\ brochures,\ which\ extract\ contents\ concerned\ the\ books,\ periodicals\ and\ newspapers.\ In\ accordance\ with\ the\ requirements\ of\ different\ readers,\ we\ have\ divided\ these\ into\ two\ categories:\ (A)\ Policy-making\ references.\ This\ service\ is\ provided\ to\ the\ government-policy\ making\ departments,\ and\ the\ contents\ include\ situation\ analysis,\ viewpoints,\ social\ trends,\ etc.\ (B)\ Economic\ department\ references.\ This\ concentrates\ on\ agriculture,\ commerce\ and\ science\ and\ technology,\ and\ covers\ special\ subjects,\ such\ as\ “Breeding\ Fish”,\ ‘Financial\ Information’,\ ‘Supply\ and\ Marketing’,\ etc.\n\n2\ Bibliographies\ and\ indexes\ on\ special\ topics.\ Wuhan\ Library\ compiles\ these\ on\ special\ topics.\ They\ have\ included\ ‘Chinese\ and\ Abroad\ Famous\ Work’,\ ‘The\ Intensive\ Reading\ Booklist’,\ ‘How\ to\ Face\ the\ Knowledge\ Economy’,\ etc.\n\n3\ Reference\ information\ for\ the\ self-learners.\ Many\ people\ frequently\ came\ and\ borrowed\ books\ about\ lawyer’s\ qualification\ tests,\ etc.\ Recognizing\ this\ situation,\ Wuhan\ Library\ has\ developed\ a\ CD-ROM\ that\ contains\ related\ reference\ books,\ test\ information\ and\ sample\ tests.\n
Helping\ Readers\ Utilize\ Information\ through\ Technology

We\ have\ allocated\ considerable\ funds\ for\ constructing\ computer\ and\ communication\ equipment.\ At\ present,\ many\ public\ libraries\ have\ built\ their\ own\ LAN,\ through\ which\ they\ can\ connect\ with\ the\ Internet\ and\ can\ also\ provide\ information\ services\ with\ their\ CD-ROMs.\ Modern\ equipments\ have\ been\ integrated\ with\ traditional\ information\ collections\ and\ processing\ technology.\ In\ the\ Wuhan\ area\ 14\ city\ district\ public\ libraries\ have\ connected\ to\ the\ Internet,\ and\ a\ local\ network\ has\ been\ built\ up,\ which\ covers\ all\ the\ public\ libraries\ in\ Wuhan.\n
1\ Reading\ guidance\ system.\ Wuhan\ Library\ provides\ a\ library\ sketch\ map\ at\ the\ entrance\ and\ multimedia\ reading\ guidance\ in\ the\ catalogue\ hall.\ In\ this\ way,\ the\ readers\ can\ have\ a\ clear\ picture\ of\ the\ library’s\ history\ and\ situation,\ service\ items,\ the\ floor\ plan,\ the\ methods\ of\ searching\ or\ borrowing\ books,\ procedures\ in\ handling\ the\ readers’\ card,\ charging\ standards,\ opening\ time\ and\ even\ the\ toilet,\ lift\ and\ telephone\ locations.\ In\ the\ catalogue\ hall,\ there\ are\ 18\ computer\ retrieval\ stations\ beside\ which\ the\ readers\ can\ find\ specific\ instructions\ on\ using\ the\ computers.\ Having\ found\ the\ documents\ online,\ they\ can\ make\ a\ note\ of\ the\ book\ collecting\ area\ with\ the\ prepared\ paper\ and\ pen,\ and\ they\ also\ can\ print\ a\ list\ on\ the\ printer\ through\ computers.\ The\ librarians\ offer\ assistance\ when\ difficulties\ arise.\n
2\ Reader\ assistance.\ For\ the\ sake\ of\ the\ readers’\ smooth\ online\ searching\ and\ reading,\ Wuhan\ Library\
uses a bulletin board to guide readers in the electronic reading room. It posts a concise flow chart on the
operation methods of databases on each computer desk for the users to operate accordingly. There is also a
special service of CD-ROM reading, which is accompanied by books, and the librarian will give
assistance on the spot.

3 Internet assistance. On the Wuhan Library Web site there are various items, such as the information
on the library, the library’s documentary treasures, electronic periodicals, new books, the local documents
of Wuhan, the policy-making references and other items. Through the Web readers can consult and use
various kinds of information. ‘Service Information’ on the Wuhan Library homepage introduces
borrowing, consulting and searching services. ‘Study on Wuhan’ mainly introduces Wuhan’s economy,
lecture, education and employment, etc. And there is much more information besides on the Web site.

4 Reference service. This work provides the readers with such services as specific documents or
documentary advice through consultation. There is an information desk at the entrance hall, and
experienced librarians help readers with their questions. It also undertakes the science and technology
investigations and writes some reports on request. It provides indexing and translating services as well.

5 Telephone service. Through the phone, readers can acquire specific information, such as the ways to
use the library card, service time, introduction of services, activity announcement, and regulations, etc.
After Wuhan Library launched this service began receiving scores of calls every day.

**Improving Citizens’ Competence in Information Acquisition through Professional Support**

According to the *China Library Yearbook*, by the end of 1999 Chinese public libraries employed 48,792
staff. To cater to different needs, professionals can launch information literacy education of different forms
and levels. In particular libraries have many professional librarians with substantial experience and
knowledge of catalogues, documents, library and information services, indexing tools, etc. As information
guides they can help readers master the techniques for using online information. In exploiting libraries,
librarians can teach them how to choose key words, how to correctly access indexed results, and how to
analyze acquired information, etc.

1 Emphasizing new readers’ education. Most readers come to the library mainly for borrowing books,
but they do not know how to use the catalogue, and lack the basic understanding of the range of books, or
the content and pattern of library services. If the librarians teach incoming readers the basics of library
skills and services, the readers are able to make better use of the library. Wuhan Library gives regular
lectures for new readers. Through these lectures new readers better understand the library’s functions and
services. In addition Wuhan library presents ‘The Introduction of the Library’ and ‘The Guide to the
Library Service’ to the first-time readers in order to help them better understanding the library’s functions.

2 Launching reader-oriented training in information knowledge and technology. This kind of training is
carried on usually by special subject lectures or knowledge competitions. Thus the readers can fully
understand the content, types and features of electronic books, periodicals, newspapers and indexing
methods. At the same time readers are introduced to new ways and different kinds of tools for Internet
searching and browsing. Wuhan Library offers lessons on basic computer knowledge, attracting thousands
of students. Wuhan Library holds lectures on basic IT knowledge on a monthly basis, to introduce the
Internet, the software and hardware, Web-based information, browsing tools, etc. At the beginning of 2002
the Wuhan Library held a readers’ computer knowledge contest, and this was greatly welcomed by
readers.

3 Providing training according to the needs of special readers. This helps enhance readers’ information
capability and accelerates their effective exploitation of information sources. For instance, in view of
readers' urgent need for information on the WTO, Wuahn Library conducted lectures on information-related issues for persons engaged in economy and business managers and administrators. We introduced features and indexing methods of various information sources, and accordingly compiled many digests of informative documents. If users understand the information sources and indexing pathways, they can acquire related information with the help of the library.

4 Offering various study classes. Wuhan Library has set up a training department, which is in charge of launching various short-term, medium-term and long-term training courses. Wuhan Library has held various lectures in the light of special developments and citizens’ needs, such as ‘How to Study English’, ‘Investment’ and ‘Psychology’, etc., which have attracted numerous citizens. Wuhan Library and Wuahn Radio and TV College jointly preliminary tertiary courses, and together they have trained hundreds of learners in just a few years.

Suggestions for Improving Information Literacy

Creating an Information-Literate Atmosphere in Society

To widely publicize information literacy education in society, we should establish an information literacy association composed of persons from all walks of life. By publishing periodicals and holding meetings, it inquires into the implements scheme of information literacy education, called on all society to value the enhancements of citizens’ information literacy, and to regard it as one of the importance factors in national development and social progress. At the same time, government should regard information literacy education as key criterion in evaluating libraries.

Reinforcing Theoretical Research on Information Literacy Education

Present-day information literacy education consists mainly in acquiring knowledge and skills related to computer and Internet use. It touches less upon other aspects of information literacy, and lacks the depth required for truly effective education. Information literacy education includes not only all sorts of information skills and techniques, but also the ethics of information use, the rational and precise use of information, the evaluation of information, etc. With regard to information ethics, the main reason for this is the increase in information abuse, such computer viruses, hacking, breaches of network security and copyright, etc. Launching the information literacy education can encourage citizens to recognize the significance of information and information technology in our social life, and also enhance their sense of responsibility for information. They can resist information pollution and standardize their own information behavior, adhering to certain principles of information ethics.

Setting up Systems for Training and Compiling Teaching Materials

If information literacy education is a far-sighted project, so is the required training program. To deal with the arrangement of specialized courses and faculty composition, libraries should consult related specialists (including those engaged in library science education). Libraries should also conduct literacy surveys among their readers. After receiving adequate feedback from experts and users the libraries are then in a position to create training programs, draw up implementation plans and launch the necessary educational programs. The teaching materials for information literacy education should include all the knowledge and techniques that users apply in using documents and library services. Libraries should make good use of the Internet to offer online teaching, so that the readers can improve their information literacy education at home.
**Enhancing the Information Literacy of Librarians**

Libraries play a major role in information literacy education. They are mainly engaged in locating, analyzing and evaluating information to help readers use this information smoothly, and librarians are the epitome of an information-literate person. This requires librarians to transform themselves from traditional organizers and keepers of information sources to directors and guides of information utilization. Therefore, improving librarians' information literacy is a key to raising citizens' information literacy.

**References**


NOTICE

Reproduction Basis

This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").