History of Curriculum Development in Library Science Education in China

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ABSTRACT: Library science education in China has experienced several stages of developments and changes in curricula. There is some research on the history of library science education in China. However, little research has been conducted on curriculum development per se from a historical perspective. This study examines the historical and current status of curriculum development in China. It compares the changes in curricula from various stages and analyzes the factors influencing the curriculum development. The main problems in curriculum development are discussed. Suggestions and recommendations are helpful for library schools to successfully adapt themselves to the digital age and to develop future curriculum effectively.

I. Introduction

China has a long history of books, libraries, and archives, which can be traced back to as early as about 4000 years ago (Lin, 1985, p. 368). Libraries have experienced five significant periods of developments: “ancient library (pre-1840), modern library (1840-1912), post-modern library (1912-1948), contemporary library (1949-1977) and post-contemporary library (1978-present)” (Yi, 2013). The library developments resulted in the existence of librarianship in ancient China (Gong, 2011). In 1913, the first library science courses were offered at Jinling University (Nanjing University, 2014). With the developments of four types of libraries: public, college, society, and special, Mary Elizabeth Wood, an American librarian, “saw the need for library education for herself as well as those who worked with her on library projects”, and founded the Boone Library School with Zurong Shen and Qingsheng Hu who studied library science in the USA, the first library school, at Wuchang in 1920 (Zhan, 2001; Yi and Thompson, 2014). Since then, more programs of library science education have been established in China. During recent decades, library science education has gradually developed. Therefore, library science education has experienced four important periods of developments: pre-1912; 1913-1948; 1949-1977; and 1978-present.

With the developments of library science education during various periods, the literature on the history and development of library and information science (LIS) education is increasing (Dong, 1997; Lin, 1983; Lin, 1985; Qi, 1995; Shen, Xu and Xie, 2001; Stueart, 1982; Tang, 1999; Zeng, 2006; Zhan, 2001; Zhou and Lin, 1990). The curriculum is the foundation of learning and teaching of library and information science education. The development of library and information science education is closely related to the curriculum development. Currently, there are few studies on the analyses of LIS courses (Yang and Hong, 2013), and the construction of curriculum resources (Luo, 2013). Until now, little research has been
conducted on the curriculum development in library science education in China from a historical perspective.

With the rapid developments of economy, science, technology, education and culture, Chinese library science education is currently facing numerous challenges such as how to adjust current curricula to meet the social needs, and to improve information professionals to successfully select, organize, retrieve and transmit relevant and appropriate information to their clients. In order to design and implement the relevant courses more successfully, it is important and necessary to explore the past successful and unsuccessful curriculum development experiences from a historical perspective.

This study examines the historical and current status of curriculum development in China. It compares the changes in curricula of various stages and analyzes the factors influencing the curriculum development. The main problems in curriculum development are discussed. Suggestions and recommendations will be helpful for library schools to successfully adapt themselves to the digital age and to develop future curricula effectively.

II. Four Periods of Curriculum Development

1. Ancient Period (Pre-1912)

Little research has been done on the library science education in ancient China, let alone curriculum development in librarianship during this period. Two thousand years ago, there existed a book classification system resulted from an ancient catalog with the purpose of cataloging and preservation of books and documents (Chai, 1993, p. 1; Li & Ni, 2000, p. 5). This technical knowledge was passed from generation to generation.

What is a curriculum? There are a variety of definitions. The curriculum is viewed as a list of specific courses or “a set of planned learning experiences offered by teachers” (Tam, 2007, p. 14). Curriculum can also be “concerned with what is planned, implemented, taught, learned, evaluated and researched in schools and at all levels of education” (McKernan, 2008, p. 4). Based on this definition of curriculum, librarianship existed in ancient China (Gong, 2011).

Ancient Chinese libraries, synonymously called book-storage houses or book repositories, originated from the Xia and Shang dynasties. From the Zhou dynasty to the Qing dynasty, four types of libraries were gradually established: (1) private, (2) official, (3) college, and (4) monastery. The functions and processes of these types of libraries included acquiring, lending, cataloguing, processing, weeding, and preserving books. The main educational approach to cultivating professional staff to run these libraries smoothly was apprenticeship.

In the Northern Song dynasty (AD 960-1127), Cheng Ju (程俱) wrote the first library science book entitled “Lin Tai Gu Shi” (麟台故事), comprehensively discussing how to establish, operate, and manage a library. It “described the functions of the national library, buildings, professional staff and the acquisitions, classifications, storage and use of the collections in a detailed way” (Gong, 2011, pp. 94-95). The areas covered in that book were the origins of the courses for library science. Many books about how to collect, classify, and utilize knowledge were written during this period.

Near the end of the 19th century and at the beginning of the 20th century, Western library practices and curricula were introduced to China by Western missionaries as well as Chinese intellectuals and reformers. This laid a solid foundation for the curriculum development as
well as the establishment and development of modern and contemporary library science education.

2. Modern Period (1913-1948)

After the demise of the Qing dynasty in 1912, libraries developed very quickly in China. In 1913, Harry Clemons, an American reference librarian, introduced the first library science courses at the University of Nanjing, as cited in Lin (1985, p. 371) and Wu and Zheng (1997, p. 3). In 1920, a vocational library science program for the training of library staff was established at Peking High Normal College. Similar programs were offered during the 1920s in a few vocational library science schools (Lin, 1985, p. 372).

In March 1920, Mary Elizabeth Wood, an American librarian, founded the Boone Library School together with Zurong Shen and Qingsheng Hu in Boone University in Wuchang. The latter two also studied library science in the USA (Zhan, 2001). “Parallel courses, one in Chinese and one in English, were offered for cataloguing, filing, book selection, reference, and bibliography” at Boone (Lin, 1985, p. 371). In 1925, another library science program was established at Shanghai Guomin University, as cited in Lin (1985, p. 371). Table 1 below demonstrates the specific courses offered by these two library science programs.

<table>
<thead>
<tr>
<th></th>
<th>Boone University</th>
<th>Shanghai Guomin University</th>
</tr>
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<tbody>
<tr>
<td>Cataloguing</td>
<td>Introduction to library science</td>
<td></td>
</tr>
<tr>
<td>Filing</td>
<td>Principles of library science</td>
<td></td>
</tr>
<tr>
<td>Book selection</td>
<td>Library administration I and II</td>
<td></td>
</tr>
<tr>
<td>Reference</td>
<td>Cataloguing</td>
<td></td>
</tr>
<tr>
<td>Bibliography</td>
<td>Classification</td>
<td></td>
</tr>
<tr>
<td>French</td>
<td>Bibliography</td>
<td></td>
</tr>
<tr>
<td>German</td>
<td>Book selection</td>
<td></td>
</tr>
<tr>
<td>Study of stone and bronze inscriptions</td>
<td>Research methods</td>
<td></td>
</tr>
<tr>
<td>Practical training</td>
<td>Sociology</td>
<td></td>
</tr>
<tr>
<td>Thesis</td>
<td>Chinese bibliography</td>
<td></td>
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</tbody>
</table>

*Source: (Lin, 1985, p. 371)*

At Boone University, the library science program was a 3-year program and “was a part of the regular college curriculum”, offering archival service and training courses to students and library staff in order to meet the social needs at that time (Lin, 1985, pp. 370-371). In 1928, a Division of Library Science was founded at the University of Nanjing but was closed in 1943 (Lin, 1985, p. 371). In 1941, the Department of Library Science at the National College of Social Education was established, as cited in Lin (1985, pp. 371-372). The curriculum requirements for students during the Second World War were a little bit higher. The requirements were “four years of residence, including two years of general education, one year of professional courses, one year of laboratory training, and a thesis” (Lin, 1985, p. 372). The Department of Library Studies at Peking University were founded in 1947 (Peking University, 2014).

3. Contemporary Period (1949-1977)

With the rapid development of all types of libraries since 1949, the library science education and its curricula steadily developed until 1965 and were stagnated during the period of the Cultural Revolution from 1966-1976.
In 1950, the Department of Library Studies at Beijing University offered a variety of professional courses and changed its program from three years in 1953 to four years in 1956 (Lin, 1985, p. 375).

In August 1953, the Boone School of Library Science was merged into Wuhan University and became Wuhan University’s Department of Library Science (Zhan, 2001, p. 35). With the new education policies developed by the central government and the new requirements for library science education, library science programs and teaching plans at Wuhan University were revised and “the curriculum system made relatively large adjustments, such as strengthening the course of Marxist theories, the additions of the introductory courses for natural and social sciences, the course for a second foreign language, thesis writing and practicum, and focusing on the construction of the basic courses” (Zhan, 2001, p. 37).

At the national level, the curriculum of library science education did not develop from 1966 to 1976 because of the Cultural Revolution.

4. Post-Contemporary Period (1978-Present)

Since the reform and opening to the outside world in 1978, Chinese libraries have developed at a rapid and steady speed. With the rapid developments of science and technology, more and more library and information science programs have been created in colleges and universities across the country (Yi and Du, 2016). The post-contemporary period (1978-present) is the best period of the development of China’s library and information science education and its curricula.

Since 1979, four main levels of library and information science education have been formed. The first level consists of doctoral and graduate education programs. The undergraduate education of library science is the second level. The third level is secondary school library education. The final level is adult education and continuing education. These levels of library and information science education have quickened the corresponding curriculum development.

In the 1990s, the curriculum design and reform were conducted through “the integration of information science courses into the traditional curriculum and the division of students into two specific subject groups according to their future interests” (Qi, 1995, p. 182). Before 1985, each library and information science program decided its own core courses and electives (Qi, 1995, p. 182).

After the national symposium held by the Chinese Society of Library Science in 1985, each level of library science education program have offered such core courses as introduction to library and information science, classification and subject headings, cataloguing books, bibliography, reference materials and services, scientific and technical literature searching, management of library and information services, collection development and user services, library automation and computerized information retrieval systems. And for each information science program, “courses such as mathematics, statistics and computer science are added” (Qi, 1995, pp. 182-183).

The rapid developments of science and technology and the use of technologies of computer, information, digitization, multimedia, network, optical disc, microforms and audio and video in libraries and information centers effected a trend for the name change of the library and
information education programs in the 1980s and 1990s. The name change of the departments or schools resulted in “addition of a large number of information subjects to the main subjects of traditional courses and the recognition and development of information studies” (Jin, 1999, pp. 5-6).

With the word “library” dropped from the name of departments or schools, most of the following traditional courses might be replaced:

- Introduction to library and information science, classification and subject headings, cataloguing books in both Chinese and Western languages, bibliography, reference services, library automation, non-book materials, management of library services, collection development, history of Chinese books, history of libraries in China, rare editions and ancient books, library literature, the applications of computers in libraries, patent knowledge, periodical management, comparative librarianship, literature of social sciences, literature of science and technology, to name a few. (Jin, 1999, pp. 6-7)

The above-mentioned common courses reflect the curriculum development in the 1980s.

Since China’s opening to the outside world, four large-scale academic undergraduate major amendments were conducted in 1987, 1993, 1998, and 2012 respectively. In 2012, “the Ministry of Education released the Undergraduate Major List for Colleges and Universities” (Wu & Peng, 2013, p. 68), which includes three majors: library science, archives, and information resources management, and lists the core courses for these majors.

The core courses for library science major are “foundations of librarianship, literature bibliography, information resource development, information organization, information retrieval, information services, information analysis, library management, and digital libraries”, as cited in Wu and Peng (2013, p. 63).

It is for the first time that information resources management major has been regulated as an essential one in the major list and it will make a direct impact on the undergraduate curriculum of library science (Wu and Peng, 2013, p. 62).

To compete with the newly established information resources management major as well as the majors of information management, information systems, and computer science and technology, library science major needs to reform its curriculum system and to strengthen technical courses. Library science curriculum must reflect the characteristics and needs of the library profession (Wu and Peng, 2013, p. 65).

III. Comparison of Curricula and Influencing Factors

Table 2 below shows the curriculum development in the undergraduate library science education during different stages at Beijing University.

<table>
<thead>
<tr>
<th>Courses in 1950</th>
<th>Courses in the 1997</th>
<th>Courses in 2014</th>
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</thead>
<tbody>
<tr>
<td>Introduction to Library Science</td>
<td>Professional Archaic and Ancient Chinese</td>
<td>Information Storage and Retrieval</td>
</tr>
<tr>
<td>Introduction to Bibliography</td>
<td>Selected Readings on Marxist-Leninist Culture</td>
<td>Computer Networks</td>
</tr>
<tr>
<td>General Reference</td>
<td>Advanced Mathematics</td>
<td>Information Economics</td>
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</table>
As indicated in Table 3 below, the courses of library science for undergraduate studies are different at various stages at Wuhan University.

**Table 3. Comparison of Curricula in Library Science at Wuhan University**

<table>
<thead>
<tr>
<th>Courses in 1928</th>
<th>Courses in the 1997</th>
<th>Courses in 2001</th>
<th>Courses in 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chinese Bibliography</td>
<td>English</td>
<td>Foundations of Librarianship</td>
<td>Fundamentals of Digital Library Era</td>
</tr>
<tr>
<td>Western Bibliography</td>
<td>Higher Maths</td>
<td>Foundations of Philology</td>
<td>Information Resources</td>
</tr>
<tr>
<td>Chinese Reference</td>
<td>Chinese Revolutionary</td>
<td>Bibliographic Science</td>
<td>Information Users and Services</td>
</tr>
<tr>
<td>History</td>
<td>Marxist Theory</td>
<td>Foundations of Information</td>
<td>Information Organization</td>
</tr>
<tr>
<td>English Reference</td>
<td>Basic of Library Science</td>
<td>Introduction to Computer</td>
<td>Information Retrieval</td>
</tr>
<tr>
<td>Chinese Book Reviews</td>
<td>Reader Research</td>
<td>Basics of Programming</td>
<td>Library and Information Center Management</td>
</tr>
<tr>
<td>English Book Reviews</td>
<td></td>
<td>Computer Application</td>
<td>Information Resource Database</td>
</tr>
<tr>
<td>Chinese and Western Classification</td>
<td>Literature Resource Building</td>
<td>Computer Systems Design and Analysis</td>
<td>Information Consultation and Decision-making</td>
</tr>
<tr>
<td>Chinese and Western Cataloguing</td>
<td>Chinese Books and Library History</td>
<td>Multimedia Technology Application</td>
<td>Metrology Information</td>
</tr>
<tr>
<td>Indexing</td>
<td>Classification Basics</td>
<td>Computerized Information Retrieval</td>
<td></td>
</tr>
</tbody>
</table>

Source: (Introducing Library Science and Museum Department of Beijing University, 1950)
Source: (Wu and Zheng, 1997, p. 31)
Source: (Peking University, 2014)
Typing Computing Operating Utilization for Network Information Resources Intellectual Property Law
Practicum Cataloguing Theory and Technology about Digital Library Evaluation of Network Systems
Library Administration Chinese Reference Books Collection Development Construction Web Design and Site Construction
Research on All Types of Libraries Bibliography Classification and Subject Methods Principles and Techniques of Digital Libraries Introduction to Knowledge Management
Children’s Libraries Computer Application Basics Cataloguing Government Information Management
History of Chinese and Western Libraries Literature Protection Information Service and User Research
Library Administration Chinese Reference Books Collection Development Construction
Physical Education Classification Research Social Science Document Retrieval
English Western Language Science and Technology Retrieval
Cataloguing Document Retrieval
French Microcomputer Consultation and Decision Making
German English Reference Information Marketing
Books Information Retrieval Advanced Mathematics
Scientific and Technical Literature Retrieval Introduction to Management
Library Automation Introduction to Economic Marketing
Library Management


The library science programs at Beijing University and Wuhan University have a long history in China. The courses in Table 2 and Table 3 reflect that the goals of those programs focus on the provision of comprehensive knowledge, skills, and abilities for students and the high quality training of students in how to discover, collect, organize, manage, evaluate, and exploit information and knowledge resources, how to provide high quality services for clients, and how to play an important leadership role in information and knowledge practice, research, and education in their professional careers. As a result, the curricula have been gradually widened.

In Table 3, the courses in 1928 show a preliminarily established library science curriculum with Chinese and Western curriculum characteristics (Zhan, 2001, p. 37). Those courses were the main ones offered to students before 1948. As the society with wars was unstable, there were not many libraries and the curriculum establishment was influenced by Western librarianship (Lin, 2005, p. 75).

In Table 2, the courses in 1950 display traditional ones, and the courses in 1997 were only specialized compulsory ones. Compulsory courses, four groups of restricted elective courses, and unlimited courses were also offered at Beijing University (Wu & Zheng, 1997, pp. 30-33). At the end of 1980s, related technology courses such as computer principles, basics of programming, and programming languages were added to the traditional curriculum (Zhou & Lin, 1990, p. 164). In the 1990s, the required courses, specialized elective courses, and non-specialized elective courses were “mixed with both traditional courses and modern technology” (Dong, 1997, p. 7). In 1992, twelve core courses in library science were identified at the national level (Ke, 2005, p. 16; Wang, 2009, p. 76). The number of core courses varied from 1985 to 2012.
During the 1990s, the development of library and information science education were influenced by many factors such as an emergence of an information industry, a new type of information services, the stability of labor market, social value, increased pressure on education from economic and market factors, and the renaming of departments and schools (Dong, 1997, pp. 3-6; Tang, 1999, pp. 18-19).

The courses in Table 2 and Table 3 reflect the influence on the curriculum development in library science by economy, science, technology, society, education, and culture. These factors will continue effecting changes in the library science curricula.

IV. Problems

Currently, there are 24 formal undergraduate library science programs in Chinese universities (Ma, 2014, p. 58). The curricula in library science seems to have developed well. However, there still exist some problems (Fu, Liu & Jiang, 2005; Li, 2007; Lin & Jiang, 2006; Luo, 2013; Yang & Hong, 2013; Wang, 2014; Wu, 1986; Yang, 2010).

The major problems of the undergraduate education of library science in China are lack of innovation and practical ability training. Some library science programs do not have practicum courses, and some traditional core courses in librarianship are ignored (Fu, Liu & Jiang, 2005, p. 61; Li, 2007, pp. 12-13; Wu, 1986, p. 72; Yang, 2010, p. 181; Yang & Hong, 2013, pp. 33-34).

With regard to the curriculum systems of the undergraduate majors of library, information and archive management in China, the problems include

the convergence and unitarization of training goals and objectives, the weakness of curriculum systemization and flexibility, the insufficiency of interdisciplinary professional curriculum system, uneven quality of practicum curriculum resource development, and lack of professional curriculum resource construction and idea sharing and collaboration. (Luo, 2013, p. v)

In the library science programs, not many librarianship-related elective courses are offered. For example, the percentage of the credit hours for librarianship-related elective courses is only 11.1% in the percentage of the total credit hours for the library science curriculum at Beijing University (Wang, 2014, pp. 140-141).

V. Suggestions and Recommendations

The future development of curricula in library science should focus on the courses relevant to future information technology application. Library science curricula need to be regularly reviewed by all stakeholders. The courses should be updated based on the review results. More librarianship-related elective courses should be added. “Courses submitted should, however, provide students with appropriate knowledge and skills to enable them to enter the profession” (Edegbo, 2011).

To solve the problems in the library science curricula in undergraduate studies, it is recommended to improve the standards of training, curriculum and curriculum contents, to integrate curriculum resources among colleges and universities, and to rationalize the
relationships between undergraduate course and graduate courses, compulsory courses and elective courses, theoretical courses and practical courses, traditional courses and network courses (Luo, 2013, pp. 31-44).

New courses should be continuously introduced to reflect the changes in information and communication technologies. Traditional courses should be revised to cater to the current social needs and trends in all areas. And the traditional contents of library science courses should be updated. To satisfy current and future professionals, a variety of courses should be offered. The flexibility and diversity in the library science curriculum should be greater in the future.

VI. Conclusion

An overview of the history of curriculum development in Chinese library science education and a brief comparison of the curricula in library science during different periods have demonstrated that the curricula have gradually developed and been widened to take into account the transformations in technology, economy, society, culture, and education, which are the key factors influencing the curriculum development.

China’s reform and opening to the outside world in 1978 have quickened the pace of change in the curriculum development in its library science education. Generally speaking, the curriculum development in library science education in China has responded positively to meet the needs of society, taken into account “the changing role of the information professional”, “the attitudes, skills and competencies required of information professionals”, the integration of “theory and practice, profession and generic skills and new and traditional disciplines”, and “what should be taught and learned of the profession” (Tam, 2007, pp. 19-20).

Currently, there are many relevant elective courses related to information technology. However, elective courses related to management are lacking, such as management basics, marketing, project management, human resource management, and knowledge management. More librarianship-related elective courses should be offered, too. The curriculum should closely follow the changing needs of society. Courses and their contents should be revisited, reviewed, adjusted, and updated.

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Luo, Xiaoning. (2013). *Research on the construction of curriculum resources of the undergraduate majors of library, information and archive management style*. Retrieved from [http://kns.cnki.net/KCMS/detail/detail.aspx?dbcode=CMFD&dbname=CMFD201401&filename=1013381059.nh&v=MDAwNDh4Q1VSTEtIWiSdEZpM25VVYnInKVYnKhQ3diOUhKcHBFYlBJUjhlWDFMdXhZUzdEaDFUM3FUCldNMUY=](http://kns.cnki.net/KCMS/detail/detail.aspx?dbcode=CMFD&dbname=CMFD201401&filename=1013381059.nh&v=MDAwNDh4Q1VSTEtIWiSdEZpM25VVYnInKVYnKhQ3diOUhKcHBFYlBJUjhlWDFMdXhZUzdEaDFUM3FUCldNMUY=)


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