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BODY OF PROFESSIONAL KNOWLEDGE REQUIRED FOR ACADEMIC LIBRARIANS IN JAPAN

HARUKI NAGATA

*Graduate School of Library, Information and Media Studies, University of Tsukuba
1-2 Kasuga, Tsukuba, Ibaraki, 305-8850 Japan
E-mail: harungt@slis.tsukuba.ac.jp*

SHIN'ICHI TODA

*Faculty of Sociology, Toyo University, 5-28-20, Hakusan, Bunkyo-ku, Tokyo, 112-8606 Japan
E-mail: toda@hakusrv.toyo.ac.jp*

HIROSHI ITSUMURA

*Nagoya University Library Studies, Furocho, Chikusa-ku, Nagoya, 464-8601 Japan
E-mail: hits@nul.nagoya-u.ac.jp*

KENJI KOYAMA

*Information Technology Center, University of Tokyo, 7-31-1 Hongo, Bunkyo-ku Tokyo, 113-0033 Japan
E-mail: k_koyama@nifty.com*

YASUNORI SAITO

*School of Arts and Letters, Meiji University, 1-1 Surugadai, Chiyoda-ku Tokyo, 101-8301 Japan
E-mail: saitoy@kisc.meiji.ac.jp*

MASANORI SUZUKI

*Koshigaya Library, Bunkyo University, 3377 Minamiogishiima, Koshigaya, 343-8511 Japan
E-mail: msuzuki@zephyr.dti.ne.jp*

NOBORU TAKAHASHI

*Kyushu Women's College, 1 Juyugaoka, Yawatanishi-ku, Kitakyushu, 807-858 Japan
E-mail: aquarius@kwuc.ac.jp*

Abstract. This paper explores the body of professional knowledge for academic librarians by researching library staff in Japanese colleges and universities. The research was undertaken in two ways. Initially 23 focus-group interviews were conducted at eight academic libraries from 2003 to 2005. Secondly a paper survey was carried out in 2004. Both of these targeted the whole body of the library staff, ranging from the chief librarian to junior staff. The authors have identified the knowledge and skills required for today's academic librarians and learning opportunities that they preferred. The body of professional knowledge and skills revealed through the analysis of the outcomes of the research is presented here.

Introduction

Due to rapid social change and the development of information technology, higher education in Japan now faces enormous challenges. Sharp decline in the college-age population and the huge government deficit have brought serious financial problems to colleges and universities throughout the na-

tion, but, nevertheless, a rich curriculum is indispensable to students who are preparing for a changing future. Libraries in the academic institutions are expected to play an important role as their parent organizations cope with these challenges. Moreover, libraries have their own major task of fully utilizing the rapid developments in information technology. In fact, academic libraries have undergone many changes during recent decades, cultivating new services, streamlining organizational operation and restructuring staff roles.

Our Academic Library Study Group, was established as a part of LIPER (Library and Information Professions and Education Renewal) Project, and aims to clarify through a series of research investigations how academic librarians in Japan managed, what kind of specialized knowledge and skills are expected of them, and what sort of learning opportunities they prefer in order to meet these expectations.

The LIPER Project is a collaborative research founded by the Japan Society of Library and Information Science with an aim to address the urgent issue of reconstructing Library and Information Science education. To this end, this project intends to “evaluate the past activities of the institutions that have nurtured and trained librarians, based on the history and the present condition of staffing and duties.” It also aspires to “define the range of professional knowledge and skills necessary in libraries and related institutions and how these responsibilities will be shared among the educational institutions. Furthermore, in order to maintain the quality of education, it endeavors to set up the concrete guidelines by establishing a standard examination, an accreditation system for training and development and a common evaluation method.”

In this article, the research framework is overviewed first, followed by the details and the results of our research investigations (focus group interviews and a paper survey). Lastly, the body of professional knowledge and skills extracted from the research results is presented.

Research Framework

Preceding research conducted by the Faculty of Education of University of Tokyo in 1989, “Investigation on the actual condition of Library Science education and possible improvement measures” (referred to as ‘the UT survey’ in the following) aimed to confirm the knowledge base of academic librarians through a questionnaire survey targeted at managerial staff (associate directors, managers of public services, and managers of technical services) in academic libraries (Itsuo Miura, et al., 1991). The questionnaire listed 39 items of knowledge and skills, and asked the respondents to rate their ‘degree of necessity’, what would be desirable learning opportunities for them, and what they thought of the current ‘Certification of Librarian’.

Their perspectives are incorporated into our study. The “computerization of society” brought forth by “the development of information-processing and telecommunications technologies,” “social changes like internationalization, ageing, increased leisure, and changes in labor environment,” “the segmentalization of research areas,” and “changes in research styles and methods” in the world of academic pursuits were all issues which we shared. Indeed, how all these affect library services and how Library and Information Science education, which assumes the responsibility of fostering the future personnel who determine the service quality, should be organized.

The results gathered from the UT survey are of great importance to us. However, it has been 17 years since this research was undertaken, and these years have witnessed not only the accelerating progress of information-communication technology but also drastic changes in Japanese society. People’s way of thinking has been greatly transformed especially with the collapse of the bubble economy and the following recession. Therefore, it was seen to be essential to pin down the transformations that have occurred in the intervening years, while aiming to follow in the footsteps of the UT survey.

There is also the opportunity, however, to consider the appropriateness of the UT survey framework as the measure for today’s situation. The 39 items, for example, were mainly listed as “refer-

ring to the ‘criteria for library and information science education and their implementation’ (Japan University Accreditation Association), as well as preceding researches in the U.S.” Some of these are already outdated, and it is important to add some that are indispensable in today’s context. Accordingly, our interviews were conducted in the form of focus group interviews to capture the actual state of today’s library activities, while we proceeded with a literature research on the transformation of standards and criteria for professionals in the interim, to fill the time gap.

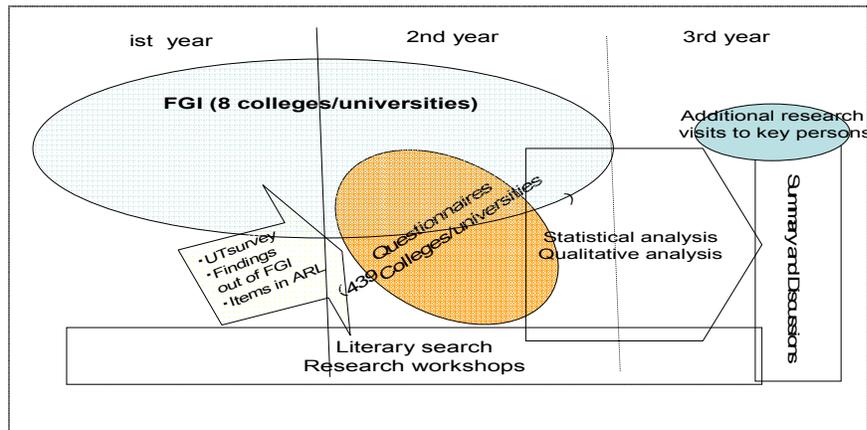


Figure 1. Research process

As shown in Figure 1, focus group interviews were conducted in the first year. In the second year, the paper survey was designed and carried out, based on the findings of the previous year, while the focus group interviews were continued. The literature review was also continued. The survey results were analyzed and studied in the 2nd and 3rd years, and further analysis of the whole research was completed in the 3rd year. (It should be mentioned here that additional visiting surveys have not been conducted yet.)

Incidentally, when dealing with issues concerning the social placement and requirements of professionals, it is important to consider the social climate that surrounds them. Because the division of professions and duties and also the practice of employment depend on the social/cultural environment, the situation observed in one place cannot be assumed to apply in other contexts. Hence it is imperative to review the Japanese circumstances, upon which this study is based.

1) ‘Certification of Librarian’ and Employment

A striking feature of the Japanese attitude to employment is that it makes much of generalists who are seen to be effective in many areas. Except for the extremely specialized subjects such as medicine and law, the social placement of so-called professionals is not necessarily clear. A license or a certificate is the requisite for many professions, and depending on the social recognition and importance of the profession, the gravity and importance of it varies, thus forming a multi-layered structure of professionals in diverse fields. The ‘Certification of Librarian’, is among these, and though it is indeed a national certification, its recognition is extremely limited. In fact it is not always among the qualification requirements for staff recruitment. The name of the post, “librarian” or “library staff,” is often not mentioned in the recruitment process, and in the cases of public libraries, staff are recruited for any public services in a municipality. As might be expected, compared with the number of Certificates issued, the actual demand for librarians is very small.

General employment practice in companies and institutions in Japan indicates that the workforce is mainly composed of workers who have been promised life employment. Since the employment promise is valid only with the organization that has made it, workers are required to develop their

abilities and answer to various needs as the organization deems fit. This generates the difficulty of a career switch based on one's specialized skills in Japan. This tendency is being modified currently and more and more non full-time, termed workers (adjunct staff, temporary staff and part-timers) are being hired in libraries, too. Ironically, it is often the case that specialized skills are more respected and welcomed in this newly emerging employment regime.

2) Library Staff and the 'Certification of Librarian' in Academic Libraries

The legally recognized 'Certification of Librarian' only applies to public libraries, and there is no certification for academic librarians in Japan. While many of the academic libraries do look at the 'Certification of Librarian' as the proof of basic skills, generally it is not counted as a qualification for employment. Therefore, it goes without saying that the applicants who perform better on the recruitment exam are chosen.

Though it is safe to say that the activities of academic libraries are quite homogenous in most countries today, roles of librarians and organizational structures of academic libraries that support the service are not necessarily the same. In some countries, librarians in colleges and universities are considered a professional group and ranked among the "academic staff," while they are regarded as "office staff" in others. The latter holds true in most cases in Japan, and however high a librarian is ranked within the library organization, s/he remains an office staff member. Furthermore, a faculty member takes the top post, that of the chief librarian, and it is very exceptional for one of the library staff to achieve this position. It follows that the segregation of duties within a Japanese academic library is established along similar lines. Though it might sound misleading, in most cases, librarians at Japanese universities and colleges only perform a secondary role in the building of collections. In Japan, this situation has been affecting our studies and research in various ways.

Focus Group Interviews

The visiting interviews, or the focus group interviews, were performed from September 2003 to February 2005 with 23 groups at 8 universities. We took a qualitative research methodology in order to investigate the professional knowledge and skills required for academic librarians and the learning opportunities they preferred. It also worked as a preparation for the design of the paper survey planned for the second year.

The scheme of the focus group interviews was constructed around our primary goal, which was to see the propriety of the 39 items of knowledge and skills adopted by the UT survey, as well as to look into the necessity of adding additional ones. Noting that systematized knowledge of this sort is greatly defined by a context of human resource management that the library employs, the following items were prepared as the interview topics. "Worksite stories" from each library were collected to further discussions.

1. Status of staff allocation and related systems (i.e. recruitment, positioning, personnel evaluation, transfer, etc.)
2. Duties of staff and setting of outsourced services
3. In-service training and requests to the training/educational institutions
4. Specialized and basic knowledge and skills considered necessary for librarians
5. Relationship between librarians and other information professionals placed at different facilities such as Computer Center

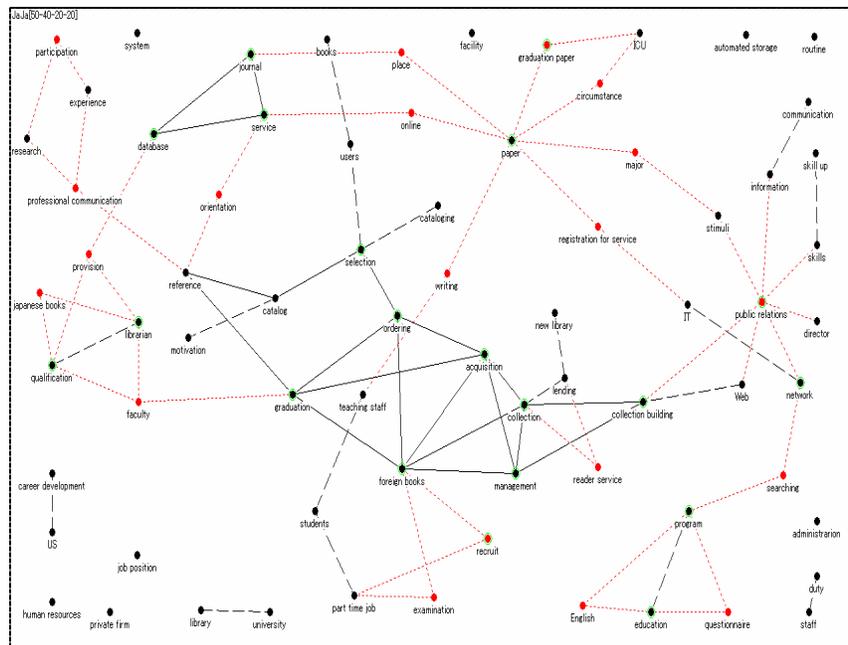
In the UT survey, the respondents were limited to the managerial "office staff" in the library excluding the head librarian (since s/he is a faculty member and usually does not participate in the library operation). What has to be taken into consideration here, however, is the fact that how a person relates to her/his duties naturally differs according to her/his rank and experiences. The heavy responsibility on the junior staff to catch up with today's huge wave of information technology development, cannot be ignored. Also, the recent emergence of exceptionally active head librarians

cannot be disregarded. They are often actively involved in the operation of their libraries and are exercising great leadership skills. Because of these changes, we decided to bypass the range of the UT survey and expanded the interviewees to the whole body of the library staff.

The interviewees were divided into 4 focus groups by the generation, duty and position: 1) junior staff group, 2) middle ranking staff, 3) deputy and senior manager group and 4) head librarian and advisory committee member group. For the convenience's sake, however, the head librarian and managers were sometimes gathered into one group, and other staff members into another for the interviews at smaller libraries.

The "worksite stories" collected through the group interviews were diverse. The transcripts were taken, and important features of each interview were extracted. Using discourse analysis software, the key words were put into a chart (Figure 2) according to their co-occurrence within a paragraph. This chart helped our understanding of the discourse contexts.

Though the dialogues on the competencies expected of librarians were more fragmentary than comprehensive, they expanded across four important areas of their professional knowledge and skills: a) generic knowledge and learning, b) subject knowledge, c) knowledge of library and information practice, and d) information technology. Interviewees at most libraries emphasized the area a), which included such abilities as planning, rich ideas and presentation skills. They felt that these were the traits of the librarians who could flexibly respond to the new situations surrounding today's libraries.



Note: Words of frequency are signified with black dots, and those which co-occur in a paragraph are connected with black solid lines. These form so-called "islands," and relations among these are signified with red lines. Red dots are for the less frequent words. It is possible to see what duties were emphasized and what tasks were thought to bear strong connections with the library's roles.

Figure 2. Key Graph (of the staff group interview at A university)

During the interviews, it was often pointed out that the division of duties was becoming unclear in the face of downsizing and stratification of the staff (i.e., differentiation of full-time and various kinds of part-time employees). Facing this problem, some colleges and universities revitalized their library operation, looking straight into this newly emerged hierarchy and re-clarifying the division of duties and roles.

The following is the characteristics summaries of each group revealed by the focus group interviews.

- 1) Junior staff group is still in the process of understanding their duty contents, and they are naturally keen to develop their skills. They desire, for example, long-term, off-the-job learning opportunities, and chances to accumulate subject knowledge (including examining undergraduate/graduate classes). Many voiced the opinion that they could confirm their duty contents through actually offering the service.
- 2) Middle ranking staff group expressed their dissatisfaction that their career paths and goals were not clearly demonstrated, transfers were often too frequent, and training programs lacked consistency. As for the qualifications for information professionals, they emphasized the knowledge of subject, content and of library and information practice.
- 3) On the other hand, deputy and senior manager group showed a strong tendency to value generic knowledge and ability (i.e. communication skills, planning ability, positive attitude, etc.) over expertise. While they admitted that frequent transfers were interfering with the improvement of staff's expertise, they also saw some rationality in them. As for the matter of outsourcing, they were dealing with it "optimistically."
- 4) Concerning the head librarian and advisory committee member group, the samples were too few to make generalizations. Nonetheless, they thought that the present personnel system, which could be characterized as a "post for post's sake," needed innovative reformations, and admitted that proper fostering and training were necessary. The information technology and contents knowledge were taken up as the necessary knowledge and skills for information specialists.

Tabulation of the Paper Survey

The paper survey was conducted from June to August 2004, targeting at all the colleges and universities with a four-year curriculum and/or a graduate program in Japan. Invoking the grouping principle of the focus group interviews, one person from each group, four in total from each library, were asked to cooperate with the survey.

The questionnaire was composed of 1) face sheet, and questions concerning 2) knowledge and skills necessary for academic librarians, 3) preferable learning opportunities, and 4) Certification of Librarian. Three different face sheets were prepared so that the questionnaire would have a different face sheet depending on the type of respondents: one was for the two staff groups, another for the manager group, and the other for the head librarian. For the manager group, a series of questions concerning the training policy of their library was added to the above-mentioned four components.

The result of responses for this survey is shown in Table 1. The response ratio improves when counted by the university than individually.

For the second and third components, the questionnaire was designed according to the 1989 UT survey in order to trace the changes since. The questions for the second component, though, were expanded to 52 items as shown in the left column of Table 2.

In the designing of the 52-item survey, five blocks were established based on the 1989 survey results to consolidate the whole (the block is shown in the letter just before the item---A: materials and media, B: organization of information, C: services, D: management, and E: others). For all the items, the staff respondents were asked to evaluate the degree of necessity from 4. "necessary at all costs" to 1. "unnecessary," and the manager-chief librarian respondents to assess the range of necessity by choosing from 3. "necessary for all staff," 2. "necessary for a part of staff" and 1. "unnecessary."

Table 1. The result of responses for the paper survey

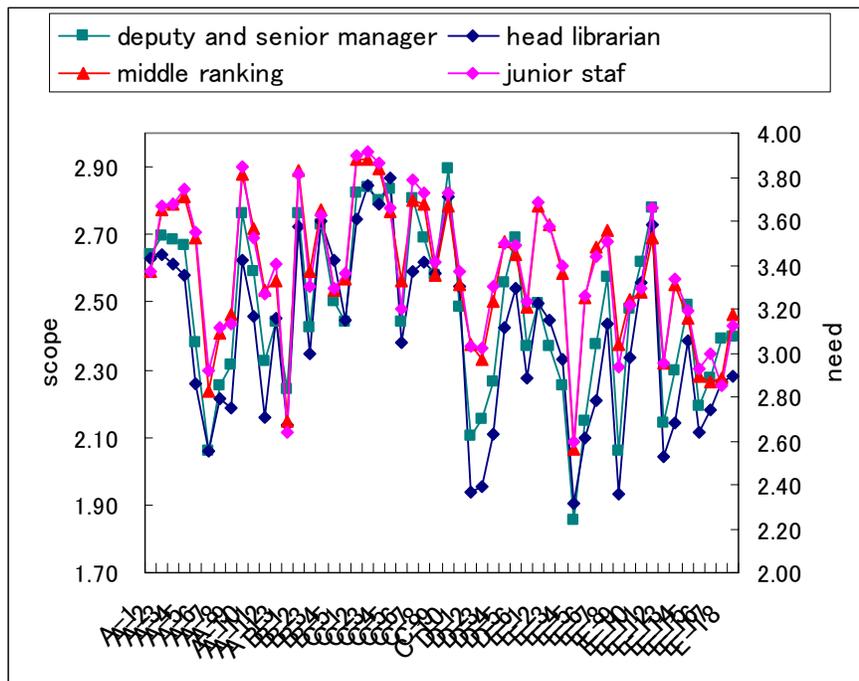
	targets (responses)	head librarian	manager	middle ranking	junior staff
private university	525(317)	276	279	273	288
national university	88(72)	63	71	85	59
prefectural/municipal universities	74(50)	43	45	46	59
total	687(439)	382	395	404	384
response rate	63.9%	55.6%	57.5%	58.8%	55.9%

Table 2. Questionnaire items and the rank comparison with the UT survey

2004 Survey		rank		1989 Survey	
2004 Survey	rank	rank	Knowledge & Skill		
A-1 Publishing industry/Academic information distribution	16	19	2	Publishing industry	
A-2 Network information resources	11	-			
A-3 Serials control	14	5	3	Serials control	
A-4 Electronic journals	15	-			
A-5 Specialized materials/sources	33	-			
A-6 Antiquarians	51	-			
A-7 Government publications/Patents	42	28	4	Government publications/patents	
A-8 Non-book material & its equipments	38	21	5	Non-book material & its equipments	
A-9 Reference tools & retrieving services	9	1	6	General reference sources	
A-10 Selection of materials	18	10	7	Selection of materials & collection building	
A-11 Collection building/evaluation	37	-			
A-12 Preservation/Conservation	29	18	8	Preservation/Conservation	
A-13 History of media	44	26	1	History of Books & Printing	
B-1 Cataloging/Online catalog	8	4	9	Cataloging	
B-2 Metadata	30	-			
B-3 Classification/Subject Heading	10	3	10	Classification/Subject Heading	
B-4 Indexing/Abstracting	22	-			
B-5 Secondary information/DB compilation	27	19	11	Secondary information compilation	
C-1 Reference service	4	6	12	Reference service	
C-2 Information retrieval skills	2	14	13	Online information retrieval	
C-3 Information literacy	6	12	14	Library/Bibliographic instruction	
C-4 Reader services	3	2	16	Reader services	
C-5 Document delivery service	28	-			
C-6 Intellectual property/Copyright	5	12	17	Copyright	
C-7 Library network/corporation	12	11	18	Library network/corporation	
C-8 Services for handicapped	19	25	19	Services for handicapped	
C-9 Users' privacy	1	-			
C-10 Customers care	25	-			
	-	29	15	Information creation & use by researchers	
D-1 Management theory/methods	49	37	20	Management theory/methods	
D-2 College/University administration	46	36	21	College/University administration	
D-3 Budget control/Accounting	41	-			
D-4 Public relations	21	22	24	Public relations	
D-5 Library statutes & standards	13	15	22	Library statutes & standards	
D-6 Library building & facilities	36	30	23	Library building & facilities	
E-1 Library system management	23	8	25	Library automation	
E-2 Database management	35	30	28	Database management	
E-3 Network management	43	-			
E-4 Programming	52	27	26	Computers Hardware & programming	
E-5 Building/Maintenance of web content	47	-			
E-6 Knowledge of academic subjects	34	9	32	Basic knowledge of academic subjects	
	-	37	33	In-depth knowledge of an academic subject	
E-7 Foreign language (English)	20	6	35	Foreign language (English)	
E-8 Foreign language (the others)	50	34	36	Foreign language (the others)	
E-9 Presentation skills	26	17	37	Communication skills (speaking & writing)	
E-10 Writing skills/Planning	17	-			
E-11 Oral communication skills	7	-			
E-12 Research methods (statistics, surveys)	48	35	38	Research methods/Statistics	
E-13 Teaching methods for library use instruction	39	-			
E-14 Intellectual freedom/Censorship	24	22	39	Intellectual freedom/Censorship	
E-15 Overseas academic libraries	45	30	30	Overseas academic libraries	
E-16 Higher education	40	33	31	Higher education	
E-17 History of libraries	32	22	29	History of libraries	
E-18 Bibliography	31	-			
	-	39	34	Bibliometrics	
	-	16	27	New media	

The tabulation result revealed that the items both highly (by staff) and broadly (by head librarians and managers) evaluated were some in the “service” block, those in the ‘A: material and media’ that were related to services, and the items that indicated the digitization of service, such as the online catalog in the ‘B: organization of information.’

On the whole, the level of necessity assessed by the middle/junior staff (on a 4 point scale) and the range of necessity evaluated by the head librarian and managers (converted into a 3 point scale) scored higher than the middle score in all items. When put into a graph (Figure 3), they appeared to interlock with each other, and moreover, the difference between the junior and middle staff and that between the head librarian and managers seemed to follow the same tendency. However, these observations cannot be conclusive as explained in detail later.



Note: The right scale is for the level and the left for the range

Figure 3. Level (staff) and range (head librarian and managers) of necessity

When comparing our results with those of the 1989 UT survey, two of the alterations that we add to it called for careful handling. The respondents of the UT survey were limited to managers, and the number of the questionnaire items was increased for our survey, from 39 to 52 by deleting 3 and adding 15. It should be mentioned here that many of the new items, however, were acquired by developing/dividing the 1989 items. Thus only rank comparison was deemed possible, by extracting the manager responses. Table 2 shows the result of this.

The table shows that the 6 items of the top 8 in the 1989 survey have stayed in more or less the same position. Some items showed changes; the evaluations for “Library system management (Library automation)” and “Foreign language (English)” have declined, and the “Knowledge of an academic subject (Basic knowledge of academic subjects),” which ranked at 9th in 1989, drastically fell. On the other hand, the ranks of “Reference service,” “Information literacy instruction (Library/Bibliographic instruction)” and “Intellectual property/Copyright (Copyright)” have ascended. To sum it up, in contrast to the 1989 survey, the serviceability and knowledge of digitized media are highly appreciated in this survey. Also, it is safe to say that the items whose ranks have descended

concerned themselves with collection and contents.

To see the desirability of learning opportunities for the knowledge and skills required for academic librarians, eight choices were set up, with multiple answers allowed: “a. undergraduate Library and Information Science education,” “b. undergraduate education of other disciplines,” “c. graduate school education (professional training sessions before employment),” “d. graduate school education (recurrent education)” “e. trainings and workshops of various kinds,” “f. on-the-job training (OJT),” “g. self-study,” “h. others” and “x. no need for learning.”

For many of the professional and basic knowledge and skills that have long been regarded as relating to ‘B: organization of information’ and ‘C: services’, some desirable learning opportunities were specified. To see how the respondents’ choice of learning opportunities and the level of necessity are interrelated, a scatter plot was created for each opportunity (Figure 4 is the plot for “undergraduate Library and Information Science education”). The vertical axis shows the level of necessity and the horizontal axis indicates the percentage of the respondents who chose that particular opportunity. The items with high necessity and clearly conceived learning opportunities converge in the upper right, and those with low necessity and ill-defined learning opportunities in the lower left. In the upper left, the items with high necessity for which learning opportunities are difficult to create within the realm of Library and Information Science cluster. On the whole, all items somewhat shifted to the left in comparison with the UT survey.

The analysis of learning opportunity preference made the order of frequency as a whole: Library and Information Science education (both undergraduate and graduate)→ OJT→ trainings→ recurrent education (Excluding the above-described choices of h. and x., the choices a. to c. were grouped up as “education before employment” and f. and g. as “OJT.” The choices d. and e. were left as they were with shortened names, “recurrent education” and “trainings,” thus making up four groups in total.). Some of the 52 items of knowledge and skills are easily acquired in undergraduate and graduate programs, and others are not. In other words, the former is well incorporated into the curricula, and the latter still needs to catch up with the current situation.

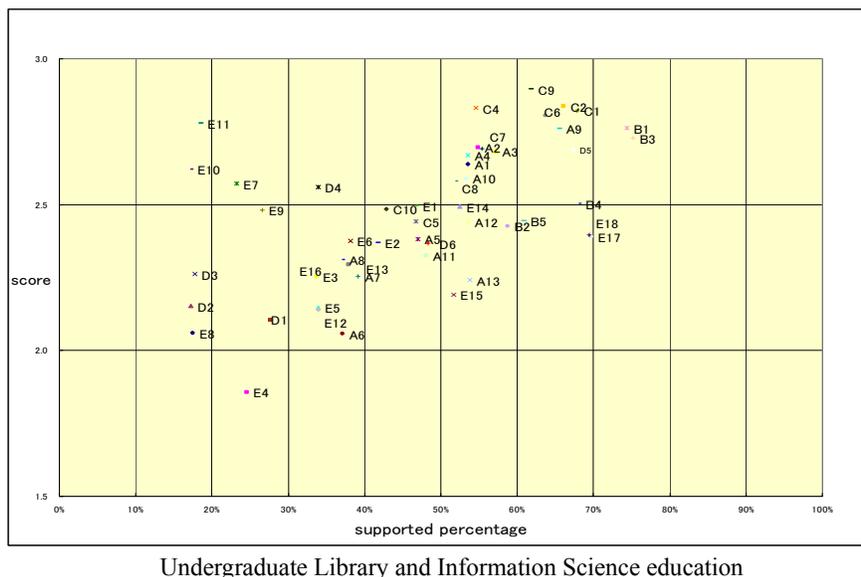


Figure 4. Choice of learning opportunities

Selection of an opportunity depends on the attribute of the said knowledge or skill for one thing, but OJT was chosen with quite a high frequency (it was higher than in the UT survey). Its high rate of choice in the multiple answers leads to an image of the professional held by the respondents, s/he is

formed by building up work experiences upon a certain level of knowledge acquired through formal education. As for the items for which the library cannot offer OJT, they just have to rely on off-the-job training and recurrent education. So the choice was actually alternative, and there was a commonality between the choices of these two. It must be added here that the actual staff demonstrated considerable expectations of recurrent education, but not the managers.

Body of Professional Knowledge Required in College and University Libraries

The assessment of professional knowledge and skills for the library staff, be it necessity or important, is greatly influenced by the actual circumstances. Management theory/methods (D-1), for example, scored relatively low as shown in Figure 3, but it is crucial in certain circumstances. In addition, planning ability and presentation skills, though repeatedly pointed out in the focus group interviews, did not rank high. These facts suggest the inappropriateness of placing all the items of knowledge and skills in one dimension as in Figure 3, calling for a need to place them in proper areas before making further examinations. The “block” concept this study took over from the UT survey does not work as a framework as such.

Going through many errors and trials, a proper framework to place the items of knowledge and skills was constructed following this procedure. First, 52 items were grouped into three areas (A: core schema, the knowledge and skills basic to information professionals at libraries, B: application environment, those to implement the core schema, and C: generic and transferable skills that are utilized for developing A and B.), and then constructive concepts within each were established. The setting of a framework with three areas derived from “Body of Professional Knowledge” (BPK) by Chartered Institute of Library and Information Professionals (CILIP), which distinguishes information professionals in three concentric circles. Not only the core knowledge and skills, but also those that function along with them are included in the system.

The necessity level data were put into factor analyses by the area, and highly distinctive factors were found in each area as shown in Table 3. The factor names are in bold letters in the right columns, and items are listed under these headings. It is possible to name these factors according to the items they are inclusive of. The first item in the core scheme, “Traditional services,” could be called “Bibliographic services,” regarding the fact that the traditional service has centered on books. Corresponding to this change, the “New services” could be termed “Information services.” Whatever the factors are named, Table 3 divides the items of knowledge and skills required for academic librarians into three areas, reflecting the viewpoints of the library staff in Japan.

In this framework the average score of the items, for both necessity level and range, was calculated for each factor and Charts 5-1 to 5-3 shows the result of it (the left scale is for the staff’s assessment of the necessity level, and the right for the head librarians and managers’ assessment of the necessity range). Within the core schema, necessity became smaller in the order of “Traditional services”, “Organization of information”, “New services”, “Collection building”, and “Books and libraries”, showing the body of knowledge and skills that is in demanded today. By segmentalizing the libraries (by the founder, size or existence of graduate programs), more detailed information can be read. For example, when only the data of the libraries at national universities, where the digitization is the most advanced, were extracted and analyzed, “New services” gained the second rank. It was also revealed that the evaluation of necessity range by the head librarian and manager group ranked the factors in a different order from the staff group (the staff evaluated “Collection building” very highly, while the head librarian and manager group did not).

Furthermore, factors like Communication, IT and Business administration came to be highly evaluated when assessed their own area, “Generic and transferable skills.” The communication factor, including presentation skills and writing ability for documents and planning papers, acquired the highest assessment within this area, showing no inconsistency with the opinions heard in the focus group interviews.

Table 3. Body of knowledge and skills necessary for academic librarians

<p>Core schema</p>	<p>① Traditional services: Secondary information compilation, Cataloging/Online catalog, Reference service, Information retrieval skills, Bibliographic instruction (Information literacy), Reader services</p> <p>② Books and libraries: Antiquarians, Preservation/Conservation, History of media, Services for handicapped, Library building & facilities, History of libraries, Bibliography</p> <p>③ New services: Network information resources, Serials control, Electronic journal, Government publications/Patents, Non-book material & its equipments, Document delivery services, Library system management</p> <p>④ Organization of information: Metadata, Classification/Subject heading, Indexing and Abstracting, Secondary information compilation</p> <p>⑤ Collection building: Specialized materials/Sources, Selection of materials, Collection building/Evaluation, Knowledge of academic subjects</p>
<p>Application environment</p>	<p>① Library standards and networks: Intellectual property/Copyright, Library network/Corporation, users' privacy, Library statute & standards</p> <p>② Information flow / publishing industry: Intellectual freedom/Censorship, Overseas academic libraries, Higher education</p>
<p>Generic and transferable skills</p>	<p>① Communication: Customer care, Public relations, Building/Maintenance of web content, Presentation skills, Writing skills/Planning, Oral communication skills, Research methods, Teaching methods for library use instruction</p> <p>② IT technology: Database management, Network management, Programming</p> <p>③ Business administration: Management theory/Methods, College/University administration, Budget control/Accounting</p> <p>④ Foreign language English, Other foreign languages</p>

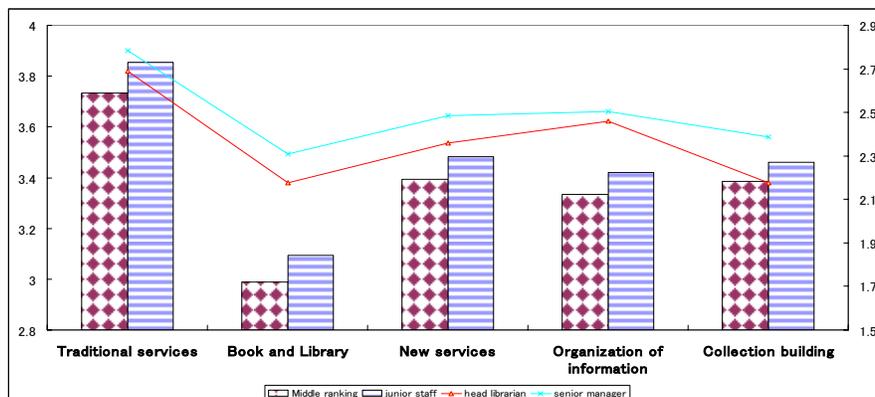


Chart 5-1. Core schema

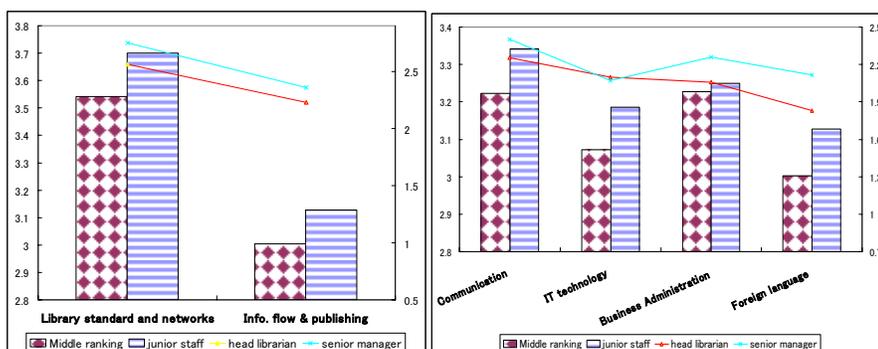


Chart 5-2. Application environment

Chart 5-3. Generic and transferable skills

Conclusion

Through the focus group interviews and the paper survey, the social positioning of academic librarians and the body of knowledge and skills expected of academic librarians were confirmed. And as its systemic components, the 52 items were established, showing that the CILIP's BPK framework functions well. Our study, however, attempted to explain this framework not through conceptual discussions as the CILIP did, but through the media and service methods currently in use at the libraries.

Among the knowledge and skills required for today's librarians in Japanese college and university libraries, the items pertaining to the service were shown to have a high "level of necessity," and the importance of "New services" is rapidly growing. Generic knowledge and skills emphasized in the focus group interviews, such as presentation skills and planning ability were also confirmed to be essential.

The focus group interviews and the paper survey made it clear that the actual staff were well aware of the need to have good collections (collection building is the Achilles' heel of Japan's academic librarians), while the head librarians and managers were not. Gaps of this kind were found in other items, too.

Starting with the data acquired through this study, we are planning to improve the educational system for academic librarians at all levels, from the fostering of future librarians, the improvement of both on-the-job and off-the-job trainings and workshops, and to the facilitation of recurrent education, while continuing to propose how and what this system should be.

References

- Miura, Itsuo et al. (1991). Daigaku Toshokanin no Chisiki Baesu to Toshokan gaku Kyoiku (Knowledge Base for Academic Librarians and Library Science Education) (1)-(2)," *Annals of Japan Society for Library Science*, Vol. 37, no. 2-3, pp. 49-63, 103-116.