

The Role of School Librarians and Subject Teachers in Information Literacy Education

An analysis of the gaps between the expected roles and actual practice

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Abstract

Information literacy education is one of objectives of school curriculum in Japan. School Librarians are expected to play an instructional role in the inquiry learning. Library instructions which have been worked on for many years cover all phases of inquiry learning such as planning, retrieving, processing, creating, sharing and evaluating. It includes various types of knowledge, skills, intellect, and attitudes. However, the results of interviewing 11 school librarians and 14 subject teachers have revealed that librarians actually teach no more than a portion of the contents that fall under the library instruction. The content primarily taught by librarians, and most subject teachers expected librarians to teach, is the traditional information skills, such as locating Information, using books, taking notes and showing references. School librarians should reconsider their expertise on information literacy education and share more responsibility with teachers to improve student learning.

Keywords: School library, Library instruction, Information literacy, Collaboration

1. The expected instructional role of school librarians

The School Library Act of Japan (1953) states that when managing school libraries, 'pupils or students should be taught to use the school library and its materials.' Based on this, school librarians assume responsibility for providing the library instruction.

The term 'School Librarian (SL)' as used in this paper includes two professions: the Teacher Librarian (TL), as a qualified member of the teachers and the School Library Staff (SLS), as a staff member who performs the school library's clerical work. In Japan, while it is common for these two professionals to work together, or for one of them to manage the school library unilaterally, each of them is required to provide instruction and assistance on information searches and usage.

For example, the “Association of Supporters of Children’s Reading” established by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) recommends in its *the Best Usage of School Libraries (Report)* that ‘Teacher Librarians should use different media, such as printed and digital materials, in teaching how to use the school library, determining the teaching plan, and conducting lessons by Teacher Librarian themselves to heighten information literacy of students’ (MEXT, 2009).

Similarly, in another report by the Ministry’s advisory committee, *the Strategies to Improve the Roles, Clerical Work, Qualifications, and Abilities Expected of Future Staff Responsible for School Libraries (Report)* , one of the duties of the SLS is ‘guided instruction,’ which includes providing ‘advice on searching for, gathering, recording, and editing information ‘ (MEXT, 2014).

Summarizing this, SL are required to not only collect and provide materials, but also to contribute to the development of the educational program through the educational activity of providing the library programs.

2. The contents of ‘School Library Instruction’ in Japan

Library instruction is also called information literacy education or learning how to learn, and refers not only to the ways of using the library or its materials, but also to educational activities that aim to cultivate the knowledge, skills, intellect, and attitude required for the process of inquiry learning. However, in contrast with subjects whose educational content is specified by *The Course of Study*, there are no national criteria on the specific content for library instruction, which is not clearly located in the education curriculum.

Previously, MEXT and the School Library Association (SLA) had both created respective guidelines on the library instruction. However, the MEXT criteria have not been revised since the *Usage and Instruction on School Libraries in Elementary and Junior High Schools* of 1983, and neither has the SLA standard been updated since the *Standard on Instructing Learning Using Information and Media* in 2004.

Thus 115 books on the school libraries issued between 1997 and 2014 were used to confirm the content listed under the library instruction, it became clear that the knowledge and skills for study covers as many as 25 categories including 119 items (Table 1). These items cover all phases of inquiry learning such as planning, retrieving, processing, creating, sharing and evaluating; and educational activities related to various types of knowledge, skills, intellect, and perspectives.

The contents of the library instruction was revised according to the Course of Study of 1998 and 2008 in the context of an expansion of the support for the overall learning process. On these occasions, “the Period for Integrated Studies” to practice inquiry learning and subject “information” were newly established as concepts, and the new overall objectives of school education were to cultivate information skills and to teach methods of learning. As a result, it

became relatively simple to situate the teaching of information seeking and using within the curriculum, and opportunities were created for SL within the overall inquiry process.

Similarly, since 2000, Japan has been paying heed to Western standards and models such as America's School Library Standards (*Information Power and Standards for the 21st-Century Learning in Action*); the *Focus on Inquiry* (Alberta Learning, 2004); the information search process model (Kuhlthau, 1993); and the Big6 Skills (Eizenberg and Berkowitz, 1990). The number of SL who perceive the library instruction as an educational activity that encourages higher-level thought within inquiry learning has increased, which is thought to be one reason that for the increase in the number of items covered as well.

(Table 1) Library Instructions

No	25 Categories	Learning Activities (119 Items)
01	Planning	outline a plan for inquiry
02	Selecting Topics	select a topic; conduct a preliminary search; narrow the focus
03	Using Libraries	understand the value of libraries; use a school library; use public libraries
04	Locating Information	find a useful catalog; use card and on-line catalogs to locate information in libraries; browse the shelves; use bibliography; ask interlibrary loan; search articles from newspapers and magazines
05	Accessing other information environments	use various libraries, educational and cultural facilities, public offices, professional organizations
06	Developing an Information Retrieval Plan	brainstorm possible information sources; extract information from resources needed to solve the problem
07	Using Books	use authoritative books; use indexes and table of contents
08	Using Reference Materials	use reference books such as encyclopedias, illustrated books, dictionaries, statistics, almanac, maps, white papers and handbooks
09	Using Periodicals	use newspapers and magazines
10	Using Audio Visual Materials	use CD, DVD and other audio visual materials
11	Using Electronic Materials	use digital media, computer, CD-ROM, on-line database and internet; use search engine; use internet safely
12	Exploring a variety of resources	use information files; use other materials in libraries
13	Collecting date and information from people	interview people; take a survey; write a letter; call or send a FAX; send e-mail; gather information in the field
14	Retrieving	develop an effective search strategy; use Boolean logic; create appropriate keywords; evaluate search strategies

15	Evaluating	compare and contrast multiple resources; determine the reliability, validity and relevance of information; read information critically
16	Taking Notes	use a variety of grade-appropriate strategies for recording; take notes on cards or notebook; take pictures and video; record an interview; use a computer to take notes; record bibliographic information; create a working bibliography
17	Reading	adopt an appropriate reading skills; read meaning of texts; use skimming and scanning skills; read carefully; read date of statistics; interpret graphs, charts, illustrations, photographs, audio and video clips, and animation
18	Recording	select and record information; file documents; save a file
19	Analyzing	examine their information sources; classify information; identify the important information; determine fact and opinion; prove a hypothesis; execute statistical information processing
20	Editing	write abstracts; make summaries; translate; make adaptation; edit video, sound and picture; make graphs and charts
21	Writing	cite and use quotation marks; make summary; cite graphs and charts; distinguish facts and opinion; write logically and clearly; make a footnote; appropriately credit ideas and works of others
22	Creating	produce a variety of creations; make an outline; write reports; create journal, newspaper, poster, pamphlet, slides and website
23	Sharing	make a scenario; make a bulletin board; prepare handout and résumé; public speaking; use audiovisual or electronic materials to the sharing; write and talk about findings
24	Using information	obtain and use information legally; share date and information ethically and appropriately cite sources
25	Evaluating Results	evaluate the products and their own inquiry process by themselves; provide constructive feedback to their peers

3. Information literacy education within subject education

The current Course of Study explain the knowledge and skills necessary for the inquiry learning in relation to subject content. Hence, several of the learning activities shown in Table 1 are actually taught by subject teachers during subject classes. Then, textbooks and 'teacher's manuals' were analyzed to confirm the subjects that deal with the 119 items in the library instruction as well as the manner in which they are handled.

First, sections corresponding to each category in Table 1 were extracted from the 66 main textbooks of three elementary school subjects (Japanese, Social Science, and Science) and five junior high school subjects (Japanese, Social Science, Science, Math, and Technology),

and the types of practiced learning activities therein were confirmed. The results revealed that even though all 25 categories were addressed by one of the subjects, some of the 119 learning activities in the categories were not addressed by any of the subjects.

Furthermore, the teacher's manuals accompanying the textbooks were used to confirm the types of knowledge and skills instructed by the subject teachers. The results clarified that some of the knowledge and skills contained in the library instructions were not covered by the subjects.

4. The practice of SL and subject teachers in junior high schools

As shown in Chapter 2, library instruction focuses on the process of inquiry and covers the knowledge, skills, intellect, and attitude necessary at every phase, ranging from planning, retrieving, processing, creating, sharing and evaluating information. However, as SL do not have classes on their own, it is unrealistic for them to teach all these items. The content instructed under a subject depends on the subject, and the teaching items that cannot be taught as part of the subjects must be prioritized. As shown in Chapter 3, some items in the library instruction are not covered by the textbooks, and therefore, a division of roles between subject teachers and SL is theoretically possible. It is also possible to indicate the items that must be preferentially taught by the SL. However, the validity of the division of roles described in books and its feasibility requires investigation that takes the reality of the situation into account.

Interviews of junior high school teachers and SL were conducted, and the division of roles between the two was analyzed. This study posed the following research questions:

- (1) What do SL teach within inquiry learning, and how are their roles shared with subject teachers?
- (2) What type of instruction do subject teachers expect from SL?
- (3) Which elements affect the division of responsibilities?

The study focused primarily on school libraries that reported their practices over the last five years in the *School Library* magazine. Ten such schools were selected, taking into account the public and private backgrounds of the schools and their subjects for ensuring a balanced sample (Table 2). At each of the schools, the contents of the lessons that involved the use of the library were investigated along with the items taught in the lessons by the subject teachers and SL (Teacher Librarians or School Library Staff) in-charge.

(Table 2) Interviewees

ID	Type of school	School Librarians (SL)	Subject Teachers (ST)		
A	Private	SLS-01	Geography (ST-01)	Geography (ST-02)	Geography (ST-03)
B	Private	TL-01	Geography (ST-04)		
C	Private	SLS-02			
D	Public	TL-02	SLS-03	Science (ST-05)	
E	Public	SLS-04	Japanese (ST-06)		
F	Public	SLS-05	Japanese (ST-06)		
G	Public	TL-03	Geography (ST-08)	Science (ST-09)	
H	Public	TL-04	Home Economics (ST-10)	Science (ST-11)	
I	Private	TL-05	Home Economics (ST-12)	Science (ST-13)	
J	Public	TL-06	Japanese (ST-14), Health & Physical Science (ST-15)		

TL: Teacher Librarian, SLS: School Library Staff

First, the applicable course units of the 'teaching plan' and 'teaching materials' were obtained, and the learning activities performed by the students in the lessons were arranged chronologically. A list of the knowledge and skills required for each activity was created.

Subsequently, around semi-structured interviews of sixty to ninety-minute duration of the subject teachers and SL who delivered the lessons were conducted. The interviews confirmed the pre-arranged learning process and sought to discover whether instruction about the knowledge and skills required therein was being provided by the subject teachers or the SL. When necessary, the methods of instruction, rationale of the division of responsibilities, and the atmosphere among the students were also questioned, and they were also asked to comment freely.

All the interview records were transcribed, after which each section that mentioned how roles were divided was extracted and categorized according to the categories of the library instruction (Table 1). The contents of the opinions were then analyzed and sorted respectively into 'teaching,' 'requesting teaching,' 'wanting (having) to teach,' 'not teaching,' 'unable to teach,' and 'taught in another subject,' and were then arranged as shown in Table 3. Comments thought to indicate the background and factors related to the division of roles were summarized separately.

Table 3 Answers by ST and SL

		SL is teaching	ST expect SLs to teach	SL wants (has) to teach	SL does not teach	SL cannot teach	ST is teaching	SL expects ST to teach	ST wants (has) to teach	ST does not teach	ST cannot teach	ST & SL expect other ST to teach	Other ST are teaching	ST is teaching with SL advices
		T/L	T/L	T/L	T/L	T/L	T/L	T/L	T/L	T/L	T/L	T/L	T/L	T/L
01	Planning	3/1	0/0	0/0	0/0	0/0	1/1	0/0	0/0	1/0	0/0	0/0	0/0	0/0
02	Selecting Topics	<u>2/7</u>	0/0	0/2	0/0	0/0	<u>11/4</u>	0/0	0/0	<u>7/2</u>	0/0	0/0	0/0	2/1
03	Using Libraries	1/4	1/0	0/1	0/0	0/0	1/3	0/0	0/0	4/0	0/0	1/0	0/0	0/0
04	Locating Information	<u>4/9</u>	3/3	0/0	1/0	0/0	4/0	0/0	0/0	2/0	0/0	0/0	0/0	0/1
05	Accessing other information environments	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
06	Developing an Information Retrieval Plan	<u>4/8</u>	1/0	0/2	0/0	0/0	5/0	0/0	0/0	3/1	1/0	0/0	0/0	0/1
07	Using Books	<u>2/6</u>	0/0	0/1	0/0	0/0	5/1	0/1	0/0	1/0	3/0	0/0	1/0	0/0
08	Using Reference Materials	2/4	0/0	0/1	0/0	0/0	3/0	0/1	0/0	0/0	0/0	0/0	0/0	0/1
09	Using Periodicals	0/1	0/0	0/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
10	Using Audio Visual Materials	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
11	Using Electronic Materials	<u>1/6</u>	0/0	0/2	0/1	0/0	<u>8/0</u>	0/0	0/0	2/0	0/0	0/1	0/4	0/1
12	Exploring a variety of resources	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
13	Collecting date and information from people	1/0	0/0	0/0	0/0	0/0	1/0	0/0	0/0	0/0	0/0	0/0	0/0	0/0
14	Retrieving	0/3	0/0	0/1	0/0	0/1	0/0	0/0	0/0	0/1	0/0	1/0	0/0	0/0
15	Evaluating	<u>1/8</u>	0/0	0/2	0/0	0/1	<u>7/2</u>	0/1	1/0	1/2	1/0	0/0	0/0	0/0
16	Taking Notes	<u>6/10</u>	2/0	0/1	0/0	0/0	<u>9/3</u>	0/0	0/0	5/4	3/0	1/0	0/0	0/4
17	Reading	1/3	0/1	0/0	0/0	0/1	3/1	0/0	0/0	0/0	0/0	1/0	0/0	0/0
18	Recording	0/1	0/0	0/0	0/1	0/0	1/0	0/1	0/0	2/0	0/0	0/0	0/0	1/0
19	Analyzing	<u>4/6</u>	0/0	0/0	0/0	0/0	4/2	0/0	0/0	3/2	1/0	0/0	0/0	0/2
20	Editing	0/0	0/0	0/0	0/0	0/0	2/1	0/0	0/0	0/0	0/0	0/0	0/0	0/0
21	Writing	1/5	0/0	0/1	0/2	1/1	<u>6/6</u>	0/0	0/2	6/4	1/0	3/0	0/0	0/4
22	Creating	<u>2/6</u>	1/0	0/1	0/5	0/1	<u>8/2</u>	0/0	0/1	4/3	4/0	1/0	0/0	1/3
23	Sharing	1/0	0/0	0/1	0/0	0/0	2/1	0/0	0/0	0/1	0/0	1/1	0/0	0/0
24	Using information	0/4	0/0	0/1	0/0	0/0	0/1	0/0	0/1	0/1	0/0	0/0	0/0	0/1
25	Evaluating Results	1/1	0/0	0/0	0/0	0/0	1/1	0/0	0/0	0/1	0/0	0/0	0/0	0/0

※14 Subject teachers (T) and 11 School librarians (S); incl. 6 Teacher Librarians and 5 School Library Staffs

5. Results and discussion

Based on the results of interviewing 11 school librarians and 14 subject teachers, this chapter discusses the items mentioned by more than half of the interviewees.

5.1. The division of roles between SL and subject teachers

There are four types of results of the interview.

- (1) SL and teachers divide the instructions necessary for the inquiry learning
- (2) SL and teachers provide the same content, no noticeable difference could be detected
- (3) SL provide the primary instruction
- (4) Teachers provide the primary instruction.

First, the items for which SL and teachers have the same aims, and focus on different knowledge and skills in the instruction are as follows.

The item '02 Selecting Topics,' is taught by SL and teachers together, but while SL teach how to 'decide on a topic after preliminary search such as using an encyclopedia' or 'narrow down topics using a worksheet such as a *mandalart*,' teachers use methods such as 'providing limited topics in advance' or 'encouraging students to provide examples of their interests.' On the other hand, several subject teachers also responded that they do not provide instruction on how to select a topic, and that they encourage students instead to decide on a topic freely, and do not go beyond providing individual advice and attention when required.

Regarding item '11 Using Electronic Materials,' subject teachers urged caution when using Wikipedia, and encouraged students to use recommended websites. Although SL provided similar instruction, some said that they taught students how to use search engines. In the context of computer operation and ID/password management, several SL responded that it was taught by teachers of Information and Computer Science.

Item '15 Evaluating' is taught similarly by SL and subject teachers, and its contents dealt primarily with the need to confirm the authenticity of internet information, as well as using multiple materials. However, while subject teachers paid particular attention to internet-based information in their instruction, SL tended to provide instruction about printed materials such as books and newspapers as well.

Next, the items which were not different between the SL's instruction and teachers is as follows. For item '22 Creating,' both types of professionals teach report composition and formatting. Several subject teachers said that they encourage visual devices when creating posters, but this is limited to adding color and formulating headings, and does not extend to topics such as layout rules. Several SL and subject teachers responded that they did not or could not teach this item.

Furthermore, the items primarily taught by SL are '04 Locating Information,' '06 Developing an Information Retrieval Plan,' and '19 Analyzing.' Several of the subject teachers also

responded that either the “SL teaches” these items or that “they would like SL to teach them,”. So these items are considered as the SL’ teaching domain.

Several responses indicated that ‘16 Taking Notes’ is taught by SL and subject teachers alike. Accordingly, observing the content of the instruction mentioned in the respective opinions reveals that SL taught how to record on information cards, cite sources, view colophons, and show references. Although subject teachers responded that they advise students to cite their sources, there were no cases of them providing instruction on how to view bibliographic information, or of creating worksheets for students to cite their sources voluntarily. Several of the SL have the impression that teachers “do not teach how to take notes,” but this is because the instruction provided by subject teachers does not extend beyond mere speaking. When comparing the content taught by both types of professionals, it is accurate to say that taking notes can be considered primarily as an item taught by SL.

On the other hand, ‘21 Writing’ is primarily thought to be taught by subject teachers. Within this category, SL are thought to teach the formal rules for citations, while methods of summarizing, writing sentences logically, and essay composition are thought to fall under the domain of subject teaching. However, there is a general awareness between both types of professionals that the Japanese language as a subject is responsible for this; all the subject teachers who responded that they did not teach this item teach a subject other than the Japanese language. Similarly, SL who responded that they taught in the library were also qualified TL with a license to teach Japanese.

5.2. Differences in awareness between TL and SL

Among interviewees, there are six TL and five SLS. According to this attribute, two items revealed differences in the instruction and perception of both categories.

First, while all the TL responded that they taught ‘15 Evaluating materials (information),’ less than half of the School Library Staff said the same about this item. Similarly, with one exception, all the TL taught ‘21 Writing with information,’ but none of the SLS said they taught this (Table 4) item.

One SLS (SLS-04) responded thus about the items she is able to teach follows: *“When I notice skills and knowledge that needs to be taught, I inform the teachers who then teach that topic on my behalf. I can provide support for topics such as how to conduct research and use books, but I think that I could not teach them because I do not have learned any courses in the university.”* Hence, when compared with TL, many of the SLS who are not teachers felt negatively about their instruction when teaching topics other than searching for library materials.

5.3. Expectations from particular subjects

Several teachers who held lessons that introduces inquiry learning noticed that they have to

teach a greater expanse of knowledge and skills than initially anticipated and found it difficult to cover them all within a single unit. For example, a Social Studies teacher (T02) said, *“In first-grade junior high school Social Studies lessons, they engage with information gathering; in Japanese language here, they summarize; and in science experiments, they separate fact and opinion. After that, I think they’re able to write reports when asked to, but if it wasn’t for this situation, I think we would struggle to cover everything within the Social Studies.”* This indicates the difficulty faced in conducting lessons incorporating inquiry learning.

Two items are expected to be covered under particular subjects. One is computer operation and ID/password management under the item ‘11 using electronic materials.’ SL provide instruction on evaluating websites and using search engines, but they expect computer operation and security to be taught under Information and Computer Science.

Another is the item ‘21 Writing with information.’ As mentioned in Section 5.2, SL and teachers of subjects other than the Japanese language expect this to be taught under the Japanese language, and Japanese language teachers also recognize the need to teach this item.

6. Conclusion

One of the objectives of Japan’s current school education is to incorporate inquiry learning and promote education in information literacy. The library instruction that has been handled for several years by SL shares common objectives with school curricula in its aim to cultivate the knowledge, skills, thought, and attitudes that inquiry learning requires.

The library instruction focuses on a broad domain, ranging from planning, retrieving, processing, creating, sharing and evaluating of information. The knowledge and skills taught are also wide ranging. However, the results of an interview survey of the roles of SL and subject teachers within inquiry learning demonstrated that SL actually teach no more than a portion of the items that fall under the library instruction.

SL focus on the following categories: ‘selecting topics,’ ‘Locating Information,’ ‘Developing an Information Retrieval Plan,’ ‘Using Books,’ ‘Using Electronic Materials,’ ‘Evaluating,’ ‘Taking Notes,’ ‘Analyzing,’ and ‘Creating.’ More specifically, the content primarily taught by SL consisted of the knowledge and skills found in the following items: ‘decide on a topic after preliminary search such as using an encyclopedia,’ ‘Narrow down the topics using a worksheet such as a *mandalart*,’ ‘Searching bookshelves for books (classifications and shelves, book subjects),’ ‘Types and characteristics of research methods,’ ‘Selecting media based on an purposes,’ ‘Using tables of contents and indices,’ ‘Judging credibility based on responsibility/author,’ ‘Recording on an information card,’ ‘Viewing colophons,’ ‘Interpreting bibliographic information,’ ‘Recording sources,’ ‘Creating a list of references,’ ‘Arranging (comparing and classifying) information using cards,’ and ‘Report formats.’

From the opinion provided by the SL, three elements could be identified as to why the items

taught covered only a portion of the expected content, namely, the physical and temporal limitations, the perceptions of subject teachers about instruction on library usage, and systematic problems within the school library profession.

For example, if sufficient teaching hours to address inquiry learning cannot be guaranteed, and school libraries are not equipped with internet-accessible computers, teaching the necessary knowledge and skills would be difficult. And several subject teachers do not even consider it necessary to teach specific knowledge and skills related to information seeking and using, as they tend to plan lessons that encourage students to conduct research and write 'freely.' Furthermore, TL who are also subject teachers cannot take additional time for classes that conduct exploratory studies, and School Library Staff who are not teachers tend to be hesitant about stating their opinions on the content and methods of classes and on teaching with the subject teachers. Effective usage instruction is therefore not being practiced.

Similarly, when looking at the division of roles on paper and comparing the items that SL actually teach, the three items 'book subjects,' 'types and characteristics of research methods,' and 'selecting appropriate media for an purposes' are not covered in textbooks and can be considered content specific to the library instruction. However, other items are included in the subject content of textbooks and teaching manuals. In other words, some items among the knowledge and skills that should be covered by subjects are not (or cannot be) actually taught by subject teachers, and it can be assumed that the items taught by SL are different from the results of the textual analysis.

The books on school libraries do not discuss in details; the person who teaches and the way how he/she teaches, but brings together various types of knowledge and skills related to information searches and usage which are posited as the content of the library instruction. It should be essential to consider new 'criteria for the library instruction' in order to organize the various items from the point of view of the division of roles between SL and subject teachers, and to bridge the gap between ideals and reality.

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Biographical note

Fumie NIWAI has worked as a teacher librarian at a private junior high school in Yokoyama City in JAPAN for 15 years, and she is a student of doctor's program at Aoyama Gakuin University in Tokyo. Her main research topic is library use education and information literacy education for the junior high school students. These come from her actual practice at the school library.