

## **Information seeking process of graduate school teachers in Sri Lanka**

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### **Abstract**

The main objective of this study is to examine information usage of information resources and information seeking process of school teachers' when seeking information for their professional information needs. It investigates what resources are preferred by the teachers, how they initiate their searching strategy, process followed and how they locate necessary information required for teaching purposes. The study uses a mixed method approach, comprising questionnaire survey and focus groups discussions. The data collected through the questionnaires were mainly quantitative and were analysed using the SPSS (21.0) while the qualitative data from the focus groups discussions were analysed using content analysis strategy. For the quantitative approach, 318 school teachers were sampled in questionnaires survey where the descriptive statistics were used for analysis. It was shown that the internet, professional books, library and personal knowledge were the top four most preferred information sources used by the teachers. The study found that most of the teachers started their searching process by using the syllabus when starting new topic to teach and most of them initiate their searching strategy by using teacher's guides, personal knowledge and study the syllabus. The findings further revealed that most of the teachers used school either IT lab or school library and book shop as place for locating information that required for teaching.

**Keywords:** Information seeking, Information resources, Seeking process, School teachers, Sri Lanka

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## **1. Introduction**

Information seeking is described as a conscious effort to acquire information in response to a need or gap in one's knowledge (Case, 2002). Such an identified information need may lead to information seeking and the formulation of requests for information (Ingwersen & Järvelin, 2005). In order to acquire information, the user has to select information from a particular source, system, channel or service. Marchionini (1995) defined information seeking 'as a process in which humans purposefully engage in order to change their state of knowledge' and which is 'closely related to learning and problem solving'. A more restrictive definition was offered by Johnson (1997) and according to him information seeking can be defined as purposive acquisition of information from selected information carriers.

In general, the quality of primary and secondary education largely depends on the capabilities and knowledge of school teachers who play a pivotal role in the education system in a country. Effective teaching and learning depend on the teachers' and learners' ability to access information and use it strategically to advance the knowledge and skills of both teachers and students. (Anderson & Krathwohl, 2000) As a result, teachers require information for various purposes on daily basis. If they are not receiving an effective information provision it may adversely affect the learning outcomes of the students and impacts on education in a country as a whole. Therefore studying the information needs and information seeking behavior of school teachers is a prime necessity that will guide for establishing a formal systematic channel of information provision to meet school teachers' information needs.

Moreover, there is little evidence of research on information seeking behaviour of school teachers in relation to information needs, resources usage and information seeking process of school teachers in Sri Lanka. This research was conducted to fill that gap and to contribute to the knowledge base in the areas of information seeking behaviour of school teachers. This study certainly will be a guide for policy makers availing better and effective ways that information can be provided and upgrade information services to meet school teachers' information needs that required for quality education in a country.

The main focus of this research was to explore school teachers' information usage and information seeking process that follows to fulfill their information needs. It examines how teachers initiate their searching strategy, process followed when seeking information and how they locate necessary information required for teaching purposes. The findings of the study will be utilized for the provision of effective information services for the school teachers in Sri Lanka.

## **2. Research objective and questions**

The main objective of this study is to examine information resources usage and information seeking process followed by the school teachers when seeking their professional information needs i.e. teaching purposes. The main research question which aims to address from the study is: What is the process followed by the teachers when seeking information? The study aims to address the four sub questions as follows;

- a) What are the preferred information sources do teachers uses when seeking information?
- b) What is the process followed when starting a new topic to teach?
- c) What do teachers do before planning and preparation for the lessons?
- d) From where do teachers locate the information needed for teaching?

## **3. Review of related literature**

The review of related literature on teachers' information usage would help to build the conceptual framework for the focus on information sources. As professionals pursue information from different sources for mastering specialized knowledge for performing their roles and responsibilities in a standard manner, it is needed to identify the sources of information used by the teachers to execute their professional tasks.

According to Meyers (Meyers et al., 2007), teachers used numerous sources of information to meet their information needs. Uwaifo and Eiriemiokhale (2013) observed that teachers obtain various benefits from the use of electronic information resources. In the same vein, Tanni (Tanni et al., 2008) established that both print and electronic information formats are used by the teachers and they used Google and Wikipedia more often than other internet sources.

Summers (Summers et al., 1983), found that the educators mostly depend on conventional sources like colleagues, libraries and text books which are available proximity. In the study conducted by Attafuah (2015) found that printed books and other monographs are the main sources of information used by the teachers because of their availability. In addition to that, these sources are helped for lesson planning and allowing teachers to provide quality notes for their learners. (Attafuah, 2015)

Consistent with the above studies, Sàncchez and Valcàrcel (1999) and Nwokedi and Adah (2009) found that teachers mostly use text- books which are prescribed for students and magazines and other text- books if the information contain in the prescribed text- books are not sufficient or the content of the text- books are false or not acceptable. Moreover, teachers do modify or add to the content of text- books by using their subject knowledge and expertise. (Sàncchez & Valcàrcel , 1999) Similarly, Fazlul-Haq, (1976) also found that teachers mostly refer text- books for lecture notes preparation and in order to obtain current information and latest advancement of subject knowledge they use journals, research reports and conference proceedings.

On the other hand, when developing an appropriate information service for users, understanding of information needs and information seeking behavior of the target users is a must. Fourie (2006) suggested that examining the information needs and information seeking behaviour of a specific target group is the first step in planning information literacy and empowerment programs, and recommended that ongoing research needs to learn more about specific user groups. Loeber and Cristea (2003) recommended examining why users are seeking information in order to improve the design of information systems. Little is known about the information seeking needs and searching behaviours of pre-kindergarten through Grade-12 teachers. A better understanding of the information needs and seeking process of teachers could lead to the development of better designed information systems to meet those needs (Small et al., 1998). This may be achieved through appropriate research.

Merchant and Hepworth (2002) affirmed that print sources, particularly would help to strengthen a framework for the topic, enhance subject knowledge to be taught or for actual information. In addition to that, teachers use the internet,

subject journals, magazines and mass media (television and newspaper) to get current and extra information that not contained in text- books. Williams and Coles (2007) and Kirby and Bogotch (1996) indicated that most of the teachers depend on the resources of information that readily available in schools such as colleagues, practical events, newspapers and reports. Perrault (2007) stated that teachers use their personal notes, handouts, audio-visual materials and previous tests papers for lesson planning which are also readily available at schools.

Consistent with the above studies, Diekema and Olsen (2011) established that the teachers found information for their teaching using a combination of physical and digital approaches, however, they did not use resources designated expressly for their use-their school library, relying on their own collection and immediate colleagues instead. Shanmugam (1999) has investigated the information seeking behaviour of trainee teachers and he found that more than half of the teachers moderately expressed positive feelings for seeking information while they mostly preferred informal and interpersonal information sources to satisfy their information needs.

In the Sri Lankan context, only one study could be able to find out on the similar topic. The study conducted by Rathnayake (2013) found that most of the teachers prefer to use professional books such as teachers' guides, text-books and newspapers (32%) as sources of information. It is evident from the literature reviewed that the school teachers mostly used informal information sources such as colleagues, personal knowledge and they mostly use curriculum related materials such as text-books prescribed for learners and other related sources for fulfilling their professional information needs.

#### **4. Methodology**

This study used a mixed-method approach which was supplemented by methodological triangulation. A combination of quantitative and qualitative approaches can be used for the purposes of providing a better understanding of the research problem (Creswell & Plano-Clark, 2007), as well as ensuring corroboration, facilitation and complementarity (Dixon-Woods et al., 2004). This approach is also suitable for balancing the limitations and weaknesses of qualitative and quantitative methods (Bryman, 2008). The survey research

method was used to determine the characteristics, opinions, actions and previous experiences of the population (Pinsonneault & Kraemer, 1993). In addition, focus group discussions were conducted with groups of teachers, in order to obtain further information about their information seeking process.

The study population was in-service graduate school teachers in the government schools in Sri Lanka and it was decided the cluster sampling as the appropriate technique to select the study sample as the graduate teachers who are scattered in various schools in different geographical areas of the country. The total population of graduate school teachers who work in government schools in Sri Lanka is 106,756. (Statistical Abstract, 2017) It was determined the sample size to be 382, according to the Krejcie and Morgan's' Table. However, this study has oversampled an additional of 15% samples to the required sampling size and a total of 440 were sampled and the sample was drawn from the teachers who follow postgraduate courses at the Department of Education, University of Peradeniya, Sri Lanka. A self-administered questionnaire specifically designed for the study was used as the main data collection tool for the study. Data collection was carried out during the early September 2018 and the collected data were analysed using SPSS software package (version 21.0). Regarding the focus group discussion, four group discussions were conducted with 32 teachers who liked to participate and discussions were conducted during June and July 2019 which lasted between 50 to 60 minutes. Data was analysed qualitatively by means of content analysis strategy.

## **5. Results of the study**

### **5.1 Quantitative data analysis**

#### **5.1.1 Demographic and professional characteristics of the respondents**

As it can be gleaned from the Table 1, the majority of the respondents were female and male comprised only 12%. With regard the age of the respondents majority were 31-40 years of age, with the remainder being 20-30 (20%) or 41-50 (19.5%). It is further evident from Table 1, more than half of the respondents reported having been in teaching profession for 1-5 years. Teachers who had been in the profession for 6-10 years made up 23.6% of the sample,

followed by those who had been in the profession for more than ten years.(23.9%).

Table 1: Demographic and professional characteristics of the respondents

| <b>Gender</b>          | <b>Frequency</b> | <b>Percentage</b> |
|------------------------|------------------|-------------------|
| Male                   | 39               | 12.3              |
| Female                 | 279              | 87.7              |
| Total                  | 318              | 100               |
| <b>Age</b>             | <b>Frequency</b> | <b>Percentage</b> |
| 20-30 years            | 65               | 20.4              |
| 31-40 years            | 183              | 57.5              |
| 41-50 years            | 62               | 19.5              |
| More than 50           | 8                | 2.5               |
| Total                  | 318              | 100               |
| <b>Work experience</b> | <b>Frequency</b> | <b>Percentage</b> |
| Less than 1 year       | 2                | 0.6               |
| 1-5 years              | 165              | 51.9              |
| 6-10 years             | 75               | 23.6              |
| More than 10           | 76               | 23.9              |
| Total                  | 318              | 100.0             |

The main research question of this study is: What is the process followed by the teachers when seeking information? Under the main question, four sub questions were posed to understand the information seeking process of the teachers.

### **5.1.2 Information sources used by school teachers**

The first research question of the study is: What are the preferred sources of information that use by teachers? To address this question the research participants were asked to indicate the preferred sources of information used in information seeking. The respondents were asked to rate how much they preferred eight different information sources on a scale from 1 to 5, where 1 indicated “Not preferred at all” and 5 indicated “Most Preferred”.

The eight items identified as information sources were tested for its reliability, and the Cronbach's alpha value was 0.614 for all sources of information. The descriptive statistics for each item (frequencies, means, and standard deviations) of preferred sources are presented in Table 2 below.

Table 2: Descriptive statistics of preferred information sources  
(Multiple choices allowed)

| <b>Source</b>             | <b>NPA<br/>N (%)</b> | <b>NP<br/>N (%)</b> | <b>NUT<br/>N (%)</b> | <b>PR<br/>N (%)</b> | <b>SP<br/>N (%)</b> | <b>*Mean</b> | <b>SD*</b> |
|---------------------------|----------------------|---------------------|----------------------|---------------------|---------------------|--------------|------------|
| Internet                  | 2(0.6)               | 4(1)                | 31(10)               | 116(37)             | 151(48)             | 4.35         | .769       |
| Professional books        | 00                   | 6(2)                | 44(14)               | 145(46)             | 112(35)             | 4.18         | .745       |
| Library                   | 00                   | 9(3)                | 42(13)               | 143(45)             | 113(36)             | 4.17         | .771       |
| Personal knowledge        | 00                   | 4(1)                | 34(11)               | 171(54)             | 95(30)              | 4.17         | .669       |
| Workshops<br>/conferences | 5(2)                 | 7(2)                | 62(20)               | 138(44)             | 94(30)              | 4.01         | .866       |
| Magazines/<br>newsletters | 00                   | 14(4)               | 59(19)               | 161(51)             | 73(23)              | 3.95         | .782       |
| Newspapers                | 6(2)                 | 13(4)               | 52(16)               | 160(50)             | 76(24)              | 3.93         | .872       |
| Colleagues                | 10(3)                | 32(10)              | 122(38)              | 122(38)             | 18(6)               | 3.35         | .869       |

As it can be gleaned from the Table 2, 85% of respondents reported that they prefer or strongly prefer to use the internet while 91% of them either prefer or strongly prefer to use professional book as a source of information with having high mean scores of 4.35 and 4.18 respectively. More than eighty percent of the respondents prefer to use library followed by, 84% of prefer to use their personal knowledge or experience as source of information with having 4.17 mean score. Moreover, nearly three third of the respondents prefer to use workshops, magazines and newspapers as sources of information with having means scores of 4.01, 3.95 and 3.93 respectively. In terms of colleagues, only 44% of the respondents marked their preference while 13% were not preferred and 38% were neutral which gave insight that colleagues are not considered as an important source of information.



**5.1.3. Information seeking process**

The second sub-question of the key question is: a) What is the process followed when starting a new topic to teach? To address this question, the respondents were asked to indicate the process accordingly the sequence they followed. The responses are presented in Table 3.

As presents in table 3, 67% of the respondents marked “started with syllabus to establish the details “as the first step while 57% marked “Then moved for book that relevant for the topic” as the second step in the information seeking process. The results further revealed that 46% of the respondents reported “Discuss with colleagues who have knowledge about the topic “as the third step while 40% marked “Discuss with outside people who have knowledge about the topic” as the fourth step and 38% marked “Discuss with school librarian” as the fifth step followed in the information seeking process.

Table 3: Information seeking process

| Process  | Step 1 |     | Step 2 |     | Step 3 |    | Step 4 |    | Step 5 |    | Total |
|--|--------|-----|--------|-----|--------|----|--------|----|--------|----|-------|
|  | No     | %   | No.    | %   | No.    | %  | No.    | %  | No.    | %  |       |
| Started with syllabus to establish the details                 | 212    | 67  | 8      | 2.5 | 21     | 7  | 14     | 4  | 30     | 9  | 285   |
| Then moved for book that relevant for the topic                | 23     | 7   | 180    | 57  | 26     | 8  | 32     | 10 | 21     | 7  | 282   |
| Discuss with colleagues who have knowledge about the topic     | 11     | 3.5 | 58     | 18  | 146    | 46 | 41     | 13 | 21     | 7  | 277   |
| Discuss with outside people who have knowledge about the topic | 8      | 2.5 | 25     | 8   | 55     | 17 | 126    | 40 | 45     | 14 | 259   |
| Discuss with school librarian                                  | 10     | 3   | 21     | 7   | 12     | 4  | 60     | 19 | 122    | 38 | 225   |

**5.1.4. Actions taken for initiation of search strategy**

The third sub-question of the key research question is: a) What did the teachers do before planning and preparation for the lessons? To address this question, the respondents were given eleven actions and asked to mark whether they have taken before starting and preparing lesson plans at school. The responses are presented in Table 4.

Table 4: Actions taken for initiation of search strategy

| <b>Action taken</b>   | <b>Frequency</b> | <b>Percentage</b> |
|---|------------------|-------------------|
| Study teachers’ guide   | 305              | 95.9              |
| Use my personal knowledge and experience                              | 301              | 94.7              |
| Study the syllabus  | 300              | 94.3              |
| Study students’ text books  | 291              | 91.5              |
| Use the internet  | 263              | 82.7              |
| Study past examination papers   | 248              | 78.0              |
| Use my own collection   | 241              | 75.8              |
| Discuss with colleagues in my school                                  | 222              | 69.8              |
| Refer syllabus documents  | 183              | 57.5              |
| Discuss with colleagues who teach same subject in neighboring schools | 156              | 49.1              |
| Discuss with school librarian   | 80               | 25.2              |

As shown in Table 4, nearly ninety six percent of teachers started to prepare lesson plans which are the main task of the teachers by studying teachers guide. Again 95% of the respondents use their personal knowledge and experience while 94 % study the syllabus and 91% study students’ text books before preparation of lesson plans. As it can be gleaned in Table 4, nearly 83% of teachers use the internet, followed by 78% study past papers and nearly 76% refer their own collection before starting the preparation of lesson plans. The results further established that nearly 70% of teachers discuss with colleagues in school while 57% refer syllabus documents and 49% discuss with colleagues who teach same subject in neighboring schools before preparing lesson plans. When comparing all other actions, the lowest percentage of the respondents (25%) mentioned that they discuss with school librarian before starting lesson plan preparation. The results gave an insight that the majority of the

respondents use teachers’ guides and use their own knowledge before starting and preparing new lesson plan.

**5.1.5. Locating of information**

The fourth sub-question of the key question is: a) from where do teachers locate the information needed for teaching? To address this question, the respondents were asked to specify the places in which they carrying out searches for information seeking process and results can be gleaned in Table 5.

Table 5: How to locate information\*

| <b>Place/Location</b>           | <b>Frequency</b> | <b>Percentage</b> |
|---------------------------------|------------------|-------------------|
| School library/ IT Centre       | 282              | 88.7              |
| Book shop                       | 233              | 73.3              |
| Home library/private collection | 228              | 71.7              |
| Cyber café (Internet)           | 191              | 59.6              |
| Public library                  | 149              | 46.9              |

*\*Note: Multiple responses allowed*

Results indicated that the majority of the respondents (89%) said they conducted the search in the school (school library or school ICT laboratory) while 73% said they found required information from the bookshop and 72% reported they found information from their own collection at home. Nearly sixty percent of the respondents found information from the internet whereas 47% access information from the public library. The results proved that the majority of the respondents prefer to access information from their school.

**5.2 Qualitative data analysis**

**5.2.1 Information resources used by the teachers**

To obtain qualitative information on information sources used by the teachers, the participants in the four focus groups were asked to mention the information resources that they use for fulfilling their professional information needs. The majority of them indicated that they used the following sources of information for their teaching purposes: professional books, the internet, school library, colleagues and other experts, personal collections of resources and students.

### **5.2.1.1. Professional books**

Professional books (teachers' guides, student text- books and syllabus related documents) were mentioned by more participants than other information resources as their preferred source of information, which is in line with the survey results of the study. Respondents who expressed a preference for professional books cited various advantages of their use including being easy to find, containing a large amount of relevant information and being more readily available in the school environment.

*“I prefer to use professional books such as teachers’ guides, student text -books etc. for several reasons; (1) they are available in the school; (2) they are easy to use and to read; (3) they have relevant information that I need”.*

*“When I need some information, I started with reading teachers’ guides and then move to students’ text-books. I always start with them because they are easy to use, they make it easy to locate the relevant information, and I can use them anywhere and all the time” .*

### **5.2.1.2 The internet**

A majority of the participants in the four focus groups indicated a heavy reliance on the internet as the primary source of information. One of the main reasons why many respondents expressed a preference for the internet was that it provided the most current, up-to-date information relevant to the required subject. For example, a participant from second focus group revealed that:

*“I heavily rely on the internet. It provides me with current and accurate information that I need. I can find relevant information easily than print sources”.*

*“When I need to find information on a new topic I usually search in the internet. I look after what are the teaching methods that apply by the teachers in other countries to teach this particular topic. And I see how it applies to the local context also”.*

The flexibility and speed of use of resources were also cited as advantages by respondents who expressed a preference for these over print resources:

*“I use the internet because it provides relevant information very quickly. The internet is fast and save my time and I can get more information at once”.*

### **5.2.1.3 School library**

A considerable number of participants in the four focus groups noted that the preference of the school library as source of information for getting required information in the school. Most of them mentioned the school library should be consisted with up- to -date collection that relevant for all the subjects.

*“I believe the library is the first place to look for information. Because it contains most of what I am looking for, textbooks, periodicals, references and so on. In other words, the library will be the first place for all users”.*

There was a divergence in views regarding the adequacy of library resources and most of the respondents expressed their dissatisfaction with the available library resources while recognizing that there was room for improvement by developing an up- to -date collection. Many expressed the view that library collection needed to be expanded and updated, either in relation to specific subject areas or in terms of providing more resources in either the English language or the Sinhalese language.

*“Our school library collection is very poor. We need more books on current topics that relevant for school syllabus”.*

*“Library collection is not sufficient in relation to my area and this is really a sad thing. It is important to increase all types of information resources, the most up-to-date and the most recent resources in my subject”.*

### **5.2.1.4 Colleagues and other experts**

A number of respondents reported that they placed great importance on information and advice from colleagues, or other experts in their fields, when seeking information that needs for teaching. Colleagues were seen to be a very valuable source, particularly when information was difficult to obtain from other resources.

*“Friends or colleagues are also very important source of information for me. I always rely on them and many times I have found what I am looking for from them. They are very supportive and direct me to find necessary information”.*

*“If I am unable to find information particularly on a new subject or a new topic, then I contact section head or subject head or senior teachers who taught same subject”.*

### **5.2.1.5 Personal collections of resources**

The focus group participants noted their personal collections of books and other information resources; these were reported to be particularly important to some participants. Not all of the teachers covered in this study had extensive personal collections of resources that they could rely on, however. The reasons cited included easy accessibility and proximity to reach them.

*“Actually I have a good number of books on the subjects that I being taught. It is my nature that I always keep all the books or subject related publications that I can get a hold of, and it is a personal library that I have at home”.*

One respondent mentioned that she purchase needed book that relevant for teaching if it is not available in the library and then add to her personal collection

## **5.2.2 Information seeking process**

In order to elicit qualitative information about teachers’ information seeking process, the respondents were asked to recall a recent incident when they needed information. Then they were asked to mention their initial search strategies, their identification of relevant sources of information, their means of identifying relevant information from the sources their use of various information resources and finally the ways of locating of information. The qualitative research findings on information seeking process are reported in relation to the three non-linear stages i.e. Initiating Search Strategies, Searching and Locating.

### **5.2.2.1 Initiating search strategies**

The focus group participants’ descriptions of their information searching process clearly showed the importance of the initiation period in clarifying the nature of their information needs.

*“First, I ask myself, what is the purpose of the information that I am looking for? This will help me to choose appropriate resources to satisfy my information needs.”*

The study showed that many of respondents start their information searching with a clear idea of their expectations. The initiation stage in which they consider their ideas is shown to be important in clarifying these expectations. A number of respondents referred to their feelings and emotional factors when describing their practices at the initiation stage of the information seeking process.

*“When starting to find out some information, I always have the feeling that I am going to find new and current information that relevant for my topic. I really do not quit until I use all the searching strategies to find information that I need. “*

#### **5.2.2.2 Searching**

Focus group participants were asked how they used search strategies for searching information. Descriptions of how they search information also differed, as some provided a general idea of what they did while others specified the details of their search process. Synthesis of the data analysis shows that the three major information resources used by teachers were books, the internet and colleagues. Most of the participants reported professional books such as teachers’ guides, text-books and syllabuses were used for their searches. *“Normally, I start looking for printed information particularly the teachers’ guide and students’ text books and browsing it in my own collection, where I have optimistic feeling to find what I am looking for.”*

When asked which sources of information they tended to use in their initial searches for information, several respondents said that this was the internet, for reasons including the vast amount of information available, and the flexibility and ease of use:

*“I started my search from the internet, because it is easy to use; and the quantity of the information available in the Internet, then comes the personal collection. In third place, I use colleagues, and then the school library. ”*

#### **5.2.2.3 Locating information**

The focus group participants were also asked to specify the place in which the searches took place. Results indicated that most of them chose home while some of them conducted the search in the school. A majority of the respondents in the focus groups that they often search for information in a range of different

locations including the internet, in personal collections at home, the school library and among colleagues and experts in the subject field. It was clear that this process was heavily influenced in many cases by barriers which influenced the availability of relevant information in particular locations. The main findings regarding the location of information were as follows:

In general a considerable number of the focus group participants noted that the internet is very important in their information seeking, due to reasons such as the vast amount of information available, and its flexibility and ease of use. However, their use of the internet in practice was adversely affected by technical difficulties such as the slow speed of the internet access.

*“My school does not have the internet connection, so I use my personal dongle and mostly access from home.”*

A considerable number of respondents reported that they placed great importance on information and advice from colleagues, or other experts in their subject fields, when seeking information. Colleagues and experts in the field were generally seen to be a very valuable source particularly when the required information was difficult to obtain from other information resources.

*“My own experience is not enough for every time. So usually I seek help of those who are experts in the field.”*

Although few respondents specifically mentioned their personal collections, these were reported to be particularly important to a few participants. However, not all of the respondents had substantial amount of personal collections of resources that they could rely on due to financial constraints and unbearable cost of publications.

*“I have quite number of subject related books in my personal collection. So, I use it for searching information sometimes”.*

## **6. Research findings and discussions**

Results of the questionnaire survey revealed that the school teachers in Sri Lanka used wide array of information sources to fulfill their professional information needs. The results of the quantitative analysis established that the most preferred information source of the teachers were professional books such



as text- books, teachers' guides etc. and the next preference mentioned was the internet. Next to the professional books and the internet, teachers mostly preferred to use library as source of information and they used their personal knowledge or experience as source to gain knowledge that relevant for teaching. The results further identified the workshops, magazines and newspapers were also used as preferred sources of information by the teachers. However, the qualitative findings of the current study are inconsistent with most of the studies which found that the teachers tend to rely mostly on colleagues as information sources. (Summers et al., (1983); Diekema & Olsen (2011), Mundt et al., (2006, p.9) and Miller et al.; 2010)

The results of the survey further revealed that the acquired information from various sources, helped the teachers for keeping knowledge update, and followed by planning the lessons and give quality notes to students. These results were consistent with research findings of Fazlul-Haq (1976) who found school teachers consulted professional books such as text books etc. for the preparation of quality lecture notes for students. These results further affirmed by Mundt (Mundt et al. , 2006) who found that teachers use various sources of information mainly of lesson planning and keeping up to date with local and international affairs.

In terms of information seeking process followed by the teachers, quantitative analysis of the survey questionnaire showed majority of the teachers started with syllabus documents to establish the details as the first step when starting a new topic to teach. These findings support Bitso's (2011) findings who wrote that younger novice teachers always start with the syllabus. The results further revealed that then they moved for professional books that are relevant for the topic and marked as the second step in the information seeking process. The survey results further depicted that most of the teachers discuss with colleagues who have knowledge about the topic as the third step when starting a new topic to teach. Moreover, the focus group participants also noted that colleagues were considered as very valuable source, particularly when information was difficult to obtain from other resources. This finding is consistent with the study of Miller (Miller et al., 2010) who found that colleagues are viewed as reliable sources of information who supply useful and practical information that need for lesson preparation for the teachers.

The quantitative data analysis further showed that the teachers discuss with outside people who have knowledge about the topic and marked as the fourth step and discuss with the school librarian was marked as the fifth and last step followed when starting a new topic to teach. The qualitative results also revealed that a majority of the focus group participants consulted teachers who teach same subject in the school or other schools and expert in the subject field when they want to get subject related information. These results is in line with studies conducted by Shanmugam (1999) who found that teachers mostly prefer to use informal and interpersonal information sources such as outside people who have knowledge of the topic.

With regard to the actions that were taken for initiation of search strategy, the survey results showed that the most of the teachers study the teachers' guide followed by use their personal knowledge or experience and study the syllabus before planning and preparation for the lessons. From a qualitative point of view, most of the teachers started their searching by using the teachers' guide, text books and syllabuses. This result is consistent with the findings of Sánchez and Valcàrcel (1999) who found that the teachers used their subject knowledge and experience to make modifications or additions to the information found in the textbooks. (Sánchez & Valcàrcel, 1999)

The results of the questionnaire survey indicated that school teachers often search for information in a range of different locations including the school either from library or IT center followed by the internet, bookshop or their own collection at home. The qualitative analysis also revealed that teachers search for information in a range of different sources including the internet, in personal collections, the school library and among colleagues and experts in the subject field. In terms of using the internet for locating information, Tanni (2008) indicted that the teachers used Google to search information and internet and Wikipedia were another sources which were often used by the teachers. In terms of school as place for locating information, Kirby and Bogotch (1996) indicated that, sources of information available in the school environment are among the most popular. Therefore, it seems that, to increase information use, teachers need a well-organized access point to information located within the school that would allow them to find the information that they want as quickly

as possible. These results support for the findings of the present study which found that the internet and school as preferred place for locating information by the teachers.

## **7. Conclusion**

The study found that the internet, professional books, library and the personal knowledge were the top four most preferred information sources used by the teachers. As gleaned from the findings, the majority of the teachers started their searching process by using the syllabus when starting new topic to teach. The second step which followed by them was they moved for books that relevant for the topic. The results further revealed that most of them discuss with colleagues who have knowledge about the topic as the third step while discuss with outside people who have knowledge about the topic marked as the fourth step. With regard to the actions that taken for initiation of search strategy, most of the teachers reported that they study teachers' guide which was followed by using their personal knowledge or experience as well as studying the syllabus before planning and preparation for the lessons. In terms of locating information, the majority of the respondents conducted the search in the school either from library or IT center followed by bookshop, their own collection at home and the internet.

## **8. Recommendations**

Based on the findings of the study, the following recommendations are offered for enhancing the information seeking activities of the teachers, particularly in the school environment.

- It is needed to upgrade the school library with necessary information resources and services and empowering school librarians with sufficient knowledge and skills in order to support teachers.
- A well-articulated and sustained effort is required to provide ICT facilities in Sri Lankan schools and make more accessible to teachers by providing computers with internet access in school libraries.
- Updating the technology infrastructure with the latest technologies; the number of computers should be increased, and faster internet connections with high bandwidth should be provided.

- As the teachers in Sri Lanka who participated for the study indicated a dire need of the internet to serve their information need, developing the technology that need to provide telecommunication services even some rural areas of the country is apparent. Therefore it is recommended that it should be taken full advantage of mobile phones potential to delivery of services and information for school teachers in Sri Lanka.
- School library should develop innovative marketing strategies to promote services offered by the library to the teachers. This would promote communication between the library and the teachers, helping the teachers become aware of what services are available to them as a distinct user group. This would lead to efficient use of the library's information sources and services.
- Establish special division /unit under the Ministry of Education for development of school libraries specially collection development on print and e-resources.

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