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Information Seeking Pattern of School Teachers in Sri Lanka: Discovering the Associate Factors

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Information Seeking Pattern of School Teachers in Sri Lanka: Discovering the Associate Factors

Abstract

The purpose of this study is to investigate whether any association between some of the factors selected and information-seeking activities of school teachers in Sri Lanka. A survey method was adapted and a self-administered questionnaire was distributed among school teachers who work in government schools in the Kandy district, Central province of Sri Lanka. This study extended that work to examine relationships between teachers' information seeking activities and some of their demographical, professional and environmental factors. A series of Chi-square test of independence was conducted to examine the relationship between the selected factors such as gender, age, experience and school location and specific information seeking activities. Overall, it was found that there is no very strong evidence of relationship between the four factors and the teachers' information seeking activities particularly information resources usage, preference of communication channels, language and locating of information. Further to that it was established that there was significant association between the teachers' preferred information format and the four factors selected.

Keywords: Information resources, Information seeking, Information use, School teachers, Factors associate, Sri Lanka

1. Introduction

Information has become the most essential component at the present information driven society and people seek information to fulfill their professional as well as daily life information needs. The concept 'information seeking' refers to the activities information users purposefully engage in to acquire information that will satisfy their information needs or fill an identified gap in their knowledge base. Information seeking is part of information behaviour and it may occur with a specific purpose in mind in order to address the information need. (Case 2007:5). According to

Johnson (2003) information seeking is described as the purposive acquisition of information from selected information carriers; these include information sources and channels for communication information.

Information seeking is an information activity which is prompted by the information needs of users. To satisfy their information needs, users may draw on both formal and informal sources of information or information services. (Boadi & Letsolo, 2004 and Wilson 2000) In the process of seeking information, users may consult printed information sources (e.g. newspapers and textbooks), computer-based systems (e.g. the Internet), or both. Rieh and Hilligoss (2008) expand this list by including the use of web search engines, consulting authorities, asking friends, going to the library and watching television.

Teachers are constantly in dire need of information to build up or develop relevant knowledge. As professionals teachers require the necessary information to carry out their work roles and tasks. Their information needs arise from situations pertaining to specific tasks that are associated with one or more of the professionals work roles. (Leckie, Pettigrew & Sylvain, 1996) Teachers' task such as assessing students, preparing for lesson plan, acquiring teaching aids and finding teaching methods can trigger their information needs. (Bitso, 2012). Teachers' information need are not constant and they can be influenced by factors such as age, gender, experience and context of the need. (Haraitai & Hinnant, 2006) and (Courtright, 2007)

The present study is mainly based on Wilson's (1996) general model of information behavior and the reason is that model is derived from an analysis of human information behaviour,¹⁰ but not from any theory proposed by other writers. (Wilson, 2005, p. 33) Wilson (1996) highlighted the role of a wide range of factors in influencing information behaviour, including demographic, psychological, environmental and sociological factors. These acts as what he terms "activating mechanisms" and "intervening variables". Activating mechanisms are what prompt us to engage in activities. Intervening variables are factors which may influence the nature of those activities. (Ford, 2015) Since the present study is guided by Wilson (1996) general information seeking model, it is selected four broad factors: demographic (Gender and Age), role-related (Experience) and environmental (Location) which were identified based on the literature review

conducted by the researchers. The study aimed at mapping school teachers' information usage and the ultimate goal was to identify whether there are any relationship between the selected factors and information seeking activities of the teachers.

Understanding such influencing factors may be helpful in a number of ways. If we can identify factors that may lead to relatively ineffective behaviour, then we may be able to exert counter-influences whether in the form of training, education and self-understanding that can help and support people as they search for, evaluate and use information. Research into information seeking behaviour of individuals or group of people, but also identify factors associated with particularly successful behaviours which we can use in attempting to lessen the influence of constraining influences. (Ford, 2015)

The importance of understanding users' information seeking activities in order to point the way to innovations in information services (Hepworth, 2007) led to an investigation of the demographic and personal factors influencing information seeking of teachers in Sri Lanka. Moreover, it is important to note that there have been no previous studies in Sri Lanka that discuss information seeking activities of school teachers and therefore, the present study will add to literature regarding information-seeking behavior of school teachers and factors affecting their information seeking activities as well.

The purpose of this study is to find out whether any relationship between the selected factors namely gender, age, work experience and school location and school teachers' use of information and other related activities of information seeking. Thereafter, the discussion will show how the interplay between these contextual factors and the teachers' personal dimension influences their information use.

2. Objectives

The main objective of the study is to find out whether any association between teachers' information seeking activities and the four factors selected. (gender, age, work experience and school location). The specific objectives of the study are to:

1. Identify the relationship between the teachers' information resources usage and the selected

factors

2. Identify the relationship between the preferred communication channel and the factors
3. Identify the relationship between the preferred information format and the factors
4. Identify the relationship between the preferred language and the factors
5. Identify the relationship between the location of information and the selected factors

3. Literature Review

This section describes prior research results and methods that have examined associate factors for information seeking activities, which are relevant to the analyses performed in this study .It, also reviewed the particular studies conducted on factors that influenced for school teachers' information seeking activities found from the literature which few were existed. The studying of previous research literature would help in deciding on pertinent factors to consider for the research as well.

Researchers found that an individual's Information Seeking Behaviour (ISB) may be determined and influenced by a wide range of factors, both internal and external to that individual. Internal factors includes; demographic or personal factors such as age and gender, cognitive factors such as level of knowledge, affective factors such as level of anxiety etc. Factors external to the individual refer to features of the contexts in which they are operating, which include work, education, leisure, social relationships and one's role as a citizen. (Ford, 2015)

Pender, Murdaugh and Parsons (2002) divided personal factors into three such as biological, psychological and socio-cultural. These factors are the distinguishing elements in the personal dimension of users that shape their ISB. Chowdhury (2004) noted that users' ISB depends on a number of factors, such as the professional and educational level of the user, the user's skills in accessing information sources, and the time available to search information systems.

Another personal factor that influences the ISB of professionals is age. Hobson (1999: 142- 43) says women aged above 50 years read more than men of the same age if the tasks they aim to accomplish are different but stresses that the reading habit is the same if the tasks are the same or

if they are in the same organization structure. User demographics, such as age, are also variables that influence or affect ISB. (Taylor 1991; Wilson 2000)

Another personal factor that influences the information behaviour of professionals is the educational qualifications and experience of the professional. The level of cognitive ability determines the level and motive to seek media, reading and understanding. Educated professionals have a high level of reading and interpretation than professionals with basic qualifications and experience. Griffin (Griffin *et al.*, 2001: 72) however said that education does not provide a drive to read and interpretation and he argued that since many people read only to satisfy a particular need (attaining a qualification), reading ceases after the sought after need has been satisfied. But in this context, professionals read to provide answers to the professional tasks at hand and to externalize knowledge through sharing with colleagues.

With regarding the studies conducted on school teachers' information seeking, Landrum (Landrum *et al.*, 2002) found that the teachers, regardless of years of experience, rated professional journals as less trustworthy sources of information than colleagues or from conferences or workshops. Bitso (2012) revealed that demographic factors such as age, gender, profession, specialization, career stage and geographical location can influence teachers' ISB. He further stated that it is important to establish the age of these teachers', their teaching experience and the geographical location of their school. This is because older teachers rely on younger teachers to help them seek information from the internet; the inexperienced teachers rely on the experienced teacher to show them how and where they can easily gather information, since they have long enough in their area of specialisation; the teachers' in urban schools have different information needs from teachers' in rural school and this will affect their ISB.

In addition, Hargittai and Hinnant (2006, p.58) maintained that when studying human information behaviour, variables that should not be ignored are socio-economic background, gender, age, ethnicity and education, because these things may well influence an individual's ISB.²⁵ Moreover, in various other information behaviour models (e.g. Bystrom and Jarvelin, 1995; Johnson, 1997; Krikelas, 1983; Taylor, 1991; Wilson, 1981, 1999) there are variables, such as demographics, context, information need and prior knowledge, that influence users' choice of information sources. Wilson (1996) published a relatively holistic model which he

outlined a wide range of factors, including those internal and external to individuals. According to Wilson (1996), the factors which influence the ISB can be separated into four main categories: demographical, role related, environmental and psychological factors. Since the present study is guided by the Wilson's (1996) information seeking behaviour model, it will consider gender and age, which are linked to teaching experience, and geographic location of the schools where the teachers work as factors assumed to be associated for the teachers' information seeking activities.

As it can be gleaned from the above reviewed literature, it was found that an individual's ISB may be determined by a wide range of factors includes; demographic or personal factors such as age and gender, professional factors such as work experience and qualifications, environmental factors such as location etc. Therefore the current study selected four factors such as gender, age, experience and location and paid attention to discover any relationship between these factors and teachers' information seeking activities.

4. Methodology

The study population was in- service graduate school teachers in 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. 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. The increment of sampling size or oversample to the overall sampling size was done for several reasons, which are: to increase the reliability, to decrease the margin of error of the statistical result, and to address the non-responsiveness. (Bover, 2008) The sample was drawn from the teachers who work in the government schools in the Kandy district, Central province of Sri Lanka. A self-administered questionnaire specifically designed for the study was used as the main data collection tool and the questionnaires were distributed among the schools randomly selected after contacting their principals. Data collection was carried out during the early September 2018 and the collected data were analyzed by using SPSS software package (version 21.0).

5. Data Analysis and Findings

The purpose of this study is to find out any association between information seeking activities of teachers and the selected factors. Discovering correlations between factors and activities could lead to reveal the relationships between a dependent variable (specific information seeking activities) and a set of independent variables (selected factors). The study used Pearson's chi-square test to examine whether there any relationships between four selected variables and information seeking activities. This approach was selected because variables under study were categorical, and the expected frequency count was at least 5 in each cell of the contingency table

5.1. Demographic and professional characteristics of the respondents

The questionnaires were distributed among 440 teachers and 318 returned and used in the data analysis and this gives a response rate of 72.27%. As it can be gleaned from the table 1, the majority of the sample (89 %,) was female and male comprised only 11%. With regard the age of the respondents 57.5% of respondents were 31-40 years of age, with the remainder being 20-30 (20%,) or 41-50 (19.5%,) . Only 8 respondents (2.5%) were more than 50 years of age. It is further evident from Table 1, more than half of the respondents (52%) reported having been 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%). Only 2 respondents reported that they have working in the profession less than 1 year. With regard to the area of school located, most of the respondents, 125 (39%) indicated that their schools were situated in a suburb area followed by 35% in rural area and 24% in central city. The schools where the respondents teach were located thus fairly representative of town area as well as rural areas.

Table 1: Demographic and professional characteristics of the respondents

1	Gender	Frequency	Percentage
	Male	39	12.3
	Female	279	87.7
	Total	318	100
2	Age	Frequency	Percentage

	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
3	Work experience	Frequency	Percentage
	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
4	Location of school	Frequency	Percentage
1)	Central city	75	23.6
2)	Suburb	125	39.3
3)	Rural	110	34.6
4)	No response	8	2.5
	Total	318	100

Source: Primary data

5.2 Relationship between selected factors and Preferred Information Sources

The first specific objective of the study is to identify the relationship between information resources usage of the teachers and the four factors (gender, age, experience and location) selected. The analysis of chi-square tests of independence were performed to determine if there were any association between the selected factors in terms of whether or not they preferred to use each information sources as means to fulfill their information needs. The results indicate that there were association between some information resources and the four factors. (See Table 2)

Table 2: Results of Chi-square Test between Factors and Preferred Information Sources

	Information source	Gender	Age	Experience	Location
		Chi-square	Chi-square	Chi-square	Chi-square

		P value	P value	P value	P value
1	A colleague (i.e., another teacher)	$\chi^2(4)=3.212$	$\chi^2(12)=25.05$	$\chi^2(12)=26.35$	$\chi^2(8)=11.53$
		$P = 0.523$ <i>Not significant</i>	$P = 0.015$ <i>Significant</i>	$P = 0.010$ <i>Significant</i>	$P = 0.173$ <i>Not significant</i>
2	Work-shops, training or conference	$\chi^2(4)=15.35$	$\chi^2(12)=20.62$	$\chi^2(12)=20.07$	$\chi^2(8)=25.87$
		$P = 0.004$ <i>Significant</i>	$P = 0.056$ <i>Not significant</i>	$P = 0.066$ <i>Not significant</i>	$P = 0.001$ <i>Significant</i>
3	A professional book (Text book, Teachers guide etc.)	$\chi^2(4)=10.09$	$\chi^2(9)=23.73$	$\chi^2(9)=38.96$	$\chi^2(6)=7.89$
		$P = 0.018$ <i>Significant</i>	$P = 0.005$ <i>Significant</i>	$p < .001$ <i>Significant</i>	$P = 0.246$ <i>Not significant</i>
4	Library	$\chi^2(4)=12.17$	$\chi^2(9)=12.33$	$\chi^2(9)=17.85$	$\chi^2(6)=3.15$
		$P = 0.007$ <i>Significant</i>	$P = 0.195$ <i>Not significant</i>	$P = 0.037$ <i>Significant</i>	$P = 0.789$ <i>Not significant</i>
5	Magazine or newsletter	$\chi^2(4)=9.65$	$\chi^2(9)=13.45$	$\chi^2(9)=16.21$	$\chi^2(6)=10.02$
		$P = 0.022$ <i>Significant</i>	$P = 0.143$ <i>Not significant</i>	$P = 0.063$ <i>Not significant</i>	$P = 0.124$ <i>Not significant</i>
6	Internet	$\chi^2(4)=3.92$	$\chi^2(12)=38.92$	$\chi^2(12)=26.46$	$\chi^2(8)=5.08$
		$P = 0.417$ <i>Not significant</i>	$p < .001$ <i>Significant</i>	$P = 0.009$ <i>Significant</i>	$P = 0.749$ <i>Not significant</i>
7	Newspaper	$\chi^2(4)=11.48$	$\chi^2(12)=33.26$	$\chi^2(12)=32.96$	$\chi^2(8)=12.54$
		$P = 0.022$ <i>Significant</i>	$P = 0.001$ <i>Significant</i>	$P = 0.001$ <i>Significant</i>	$P = 0.129$ <i>Not significant</i>
8	Personal knowledge/ experience	$\chi^2(4)=2.59$	$\chi^2(9)=18.65$	$\chi^2(9)=16.84$	$\chi^2(6)=18.96$
		$P = 0.458$ <i>Not significant</i>	$P = 0.028$ <i>Significant</i>	$P = 0.051$ <i>Not significant</i>	$P = 0.004$ <i>Significant</i>

**significant at 0.05 level*

5.2.1. Relationship between Gender and Preferred Information Sources

To find out whether there is any relationship existing between the gender of the respondents and preferred sources of information used, the chi-square tests of independence were performed. It

was found (See 2nd Column , Table2) that there were no association between the gender in terms colleagues ($\chi^2(4) = 3.212$, $P = 0.523$), internet ($\chi^2(4) = 3.92$, $P = 0.417$) and personal knowledge ($\chi^2(4) = 2.59$, $P = 0.458$) as information sources. There were, however, association between gender in terms of the other information sources and descriptive statistics on these differences according to the gender present in Table 3.

Table 3: Differences of Information Sources according to Gender

	Gender	Information Source				
	Preference	Workshop	Book	Library	Magazine	Newspaper
1	Male					
I	Not preferred at all	0	0	0	0	0
Ii	Not preferred	3(1%)	2 (0.7%)	0	5 (1.6%)	2 (0.7%)
Iii	Neutral	14(4.6%)	7(2.3%)	0	6 (2%)	1(0.3%)
IV	Preferred	14(4.6%)	24(7.8%)	17 (5.5%)	23 (7.5%)	29 (9.4%)
V	Strongly preferred	7(2.3%)	6 (2%)	22(7.2%)	5 (1.6%)	7 (2.3%)
2	Female					
I	Not preferred at all	5(1.6%)	0	0	0	6 (2%)
Ii	Not preferred	4(1.3%)	4(1.3%)	9 (2.9%)	9 (2.9%)	11 (3.6%)
Iii	Neutral	48(15.7%)	37(12.1%)	42(13.7%)	53 (17.3%)	51 (16.6%)
IV	Preferred	124(40.5%)	121(39.4%)	126 (41%)	138 (45%)	131 (42.7%)
V	Strongly preferred	87(28.4%)	106(34.5%)	91 (29.6%)	68 (22.1%)	69 (22.5%)
	Total	306 (100%)	307 (100%)	307 (100%)	307 (100%)	307 (100%)

Source: Survey data

First, there were associations between genders of the respondents in terms of whether they prefer to use workshops as information sources. ($\chi^2 (4) = 15.35$, $P = 0.004$) Females (68.9%, $N=211$) preferred to use workshop as information source than male. Second, there were associations between genders of the respondents in terms of whether they prefer to use professional books as information sources. ($\chi^2 (4) = 10.09$, $P = 0.018$) Females (73.9%, $N=227$) preferred to use professional books as information source than male. (Table 3) Third, there were associations between genders of the respondents in terms of whether they prefer to use library as information sources. ($\chi^2 (4) = 12.17$, $P = 0.007$) Females (70.6%, $N=217$) preferred to use library as information source than male. Fourth, there was association between gender of the respondents in terms of whether they prefer to use magazines or newsletters as information sources. ($\chi^2 (4) = 9.65$, $P = 0.022$) Females (67.1%, $N=206$) preferred to use magazines as information source than male. Finally, there was association between genders of the respondents in terms of whether

they prefer to use newspapers as information sources. ($\chi^2(4) = 11.48$, $P = 0.022$) Females (65.2%, $N=200$) preferred to use newspapers as information source than male.

5.2.2 Relationship between Age and Preferred Information Sources

To find out whether there is any relationship existing between the age and preferred sources of information used, the chi-square tests of independence were performed. The results indicate that there were association between the age and some information resources. (See 3rd Column in Table 2) However, the results also indicated that there were no associations between age in terms of workshops, training or conferences ($X^2(12) = 20.62$, $P = 0.056$), library ($X^2(9) = 12.33$, $P = 0.195$), and magazines or newsletters as source of information. ($X^2(9) = 13.45$, $P = 0.143$)

Table 4: Differences of Information Sources according to Age

	Age	Information Source				
	Preference	Colleagues	Professional Books	Internet	Newspaper	Personal knowledge
1	20-30 years range					
I	Not preferred at all	2 (0.7%)	0	0	0	0
Ii	Not preferred	7 (2.3%)	0	0	3 (1%)	2 (0.7%)
Iii	Neutral	16 (5.3%)	8 (2.6%)	3 (1%)	14 (4.6)	3 (1%)
Iv	Preferred	38 (12.5%)	21 (6.8%)	27 (8.9%)	25 (8.1%)	35 (11.5%)
V	Strongly preferred	2 (0.7%)	36 (11.7%)	35 (11.5%)	23 (7.5%)	25 (8.2%)
2	31-40 years range					
I	Not preferred at all	5 (1.6%)	0	2 (0.7%)	6 (2%)	0
Ii	Not preferred	16 (5.3%)	4 (1.3%)	2 (0.7%)	8 (2.6%)	2 (0.7%)
Iii	Neutral	75 (24.7%)	21 (6.8%)	11 (3.6%)	18 (5.9%)	17 (5.6%)
Iv	Preferred	66 (21.7%)	98 (31.9%)	70 (23%)	102 (33.2%)	101 (33.2%)
V	Strongly preferred	16 (5.3%)	58 (18.9%)	96 (31.6%)	47 (15.3%)	58 (19.1%)
1	41-50 years range					
I	Not preferred at all	3 (1%)	0	0	0	0
Ii	Not preferred	9 (3%)	2 (0.7%)	2 (0.7%)	2 (0.7%)	14 (4.6%)
Iii	Neutral	29 (9.5%)	15 (4.9%)	17 (5.6%)	20 (6.5%)	33 (10.9%)
Iv	Preferred	18 (5.9%)	24 (7.8%)	17 (5.6%)	31 (10.1%)	12 (3.9%)

V	Strongly preferred	0	18 (5.9%)	20 (6.6%)	6 (2%)	59 (19.4%)
2	More than 50 years					
I	Not preferred at all	0	0	0	0	0
Ii	Not preferred	0	0	0	0	0
Iii	Neutral	0	0	0	0	0
iv	Preferred	2 (0.7%)	2 (0.7%)	2 (0.7%)	2 (0.7%)	2 (0.7%)
V	Strongly preferred	0	0			0
	Total	304 (100%)	307 (100%)	304 (100%)	307 (100%)	304 (100%)

Source: Survey data

On the other hand, there were associations between age of the respondents in terms of five other information sources and Table 4 presents the descriptive statistics of the differences according to age wise. First, there were associations between ages of the respondents in terms of whether they prefer to use colleagues as information sources. ($\chi^2 (12) = 25.05$, $P = 0.015$) The middle aged teachers (27%, $N=82$) who belong to 31-40 year aged group more preferred to use colleagues as information sources than teachers in other age categories. Second, there were associations between ages of the respondents in terms of whether they prefer to use professional books as information sources. ($\chi^2 (9) = 23.73$, $P = 0.005$) Middle aged teachers (50.8%, $N=156$) who were in 31-40 years aged group preferred to use professional book as a source of information than teachers in other aged groups. Third, there were associations between ages of the respondents in terms of whether they prefer to use the internet as information sources. ($\chi^2 (12) = 38.92$, $p < .001$) More than half of teachers (54.1%, $N=166$) who were in 31-40 year aged group preferred the internet as a source of information than teachers in other aged groups.

Fourth, there were associations between ages of the respondents in terms of whether they prefer to use newspapers as information sources. ($\chi^2 (12) = 33.26$, $P=0.001$) Just below half of the teachers (48.5%) who belong to 31-40 year aged group preferred newspaper than teachers in other age groups. Finally, there were associations between ages of the respondents in terms of whether they prefer to use personal knowledge or experience as information sources. ($\chi^2 (9) = 18.65$, $P = 0.028$) Just over half of the teachers (52.3%, $N=159$) who were in 31-40 year aged group preferred to use personal knowledge or experience than teachers who belongs to other aged categories. (Table 3)

5.2.3: Relationship between Works Experience and Preferred Information Sources

Analysis was done to explore if there any relationship between teaching experience and preference of information sources usage. It was found that there were association between the work experience and some information resources. (See 4th Column in Table 2) Results further indicated (See 4th Column in Table 2) that there were no associations between experience in terms of workshops, training or conferences ($\chi^2(12) = 20.07$, $P = 0.066$), magazines or newsletters ($\chi^2(9) = 16.21$, $P = 0.063$) and personal knowledge as source of information. ($\chi^2(9) = 16.84$, $P = 0.051$)

There were, however, associations between experience in terms of the other information sources and these differences according to work experience were explicated in Table 5. As revealed in the Table 5, there were associations between experience of the respondents in terms of whether they prefer to use colleagues as an information source. ($\chi^2(12) = 26.35$, $P = 0.010$) Nearly thirty percent of respondents those who had 1-5 year experience in teaching profession (29.9%, $N=91$) much prefer to use colleagues as an information source than those who had more than six years or less than one year experience .

Table 5: Differences of Information Sources according to Experience

	Work experience	Information Source				
	Preference	Colleagues	Professional Books	Library	Internet	Newspaper
1	Less than 1 year					
I	Not preferred at all	0	0	0	0	0
Ii	Not preferred	0	0	0	0	0
Iii	Neutral	2 (0.7%)	2 (0.7%)	0	0	0
Iv	Preferred	0	0	2 (0.7%)	2 (0.7%)	2 (0.7%)
V	Strongly preferred	0	0	0	0	0
2	1-5 year					
I	Not preferred at all	7 (2.3%)	0	0	2 (0.7%)	6 (2%)
Ii	Not preferred	11(3.6%)	0	7 (2.3%)	0	5 (1.6%)
Iii	Neutral	54 (17.8%)	24 (7.8%)	23 (7.5%)	12 (3.9%)	25 (8.1%)
Iv	Preferred	76 (25%)	68 (22.1%)	68 (22.1%)	70 (23%)	77 (25.1%)
V	Strongly preferred	15 (4.9%)	71 (23.1%)	65 (21.2%)	79 (26%)	50 (16.3%)
3	6-10 year					
I	Not preferred at all	1 (0.7%)	0	0	0	0

Ii	Not preferred	12 (3.9%)	4 (1.3%)	0	2 (0.7%)	6 (2%)
Iii	Neutral	31(10.2%)	3 (1%)	5 (1.6%)	4 (1.3%)	6 (2%)
Iv	Preferred	28 (9.2%)	48 (15.6%)	47 (15.3%)	27 (8.9%)	43 (14%)
V	Strongly preferred	0	20 (6.5%)	23 (7.5%)	39 (12.8%)	20 (6.5%)
4	More than 10 years					
I	Not preferred at all	2 (0.7%)	0	0	0	0
Ii	Not preferred	9 (3%)	2 (0.7%)	2 (0.7%)	2 (0.7%)	2 (0.7%)
Iii	Neutral	35 (11.5%)	15 (4.9%)	14 (4.6%)	15 (4.9%)	21 (6.8%)
Iv	Preferred	18 (5.9%)	29 (9.4%)	26 (8.5%)	17 (5.6%)	38 (12.4%)
V	Strongly preferred	3 (1%)	21 (6.8%)	25 (8.1%)	33 (10.9%)	6 (2%)
	Total	304 (100%)	307 (100%)	307 (100%)	304 (100%)	307 (100%)

Source: Survey data

There were associations between experience of the respondents in terms of whether they prefer to use professional book as an information source.($X^2(9) = 38.96$, $p < .001$) Those who had 1-5 year experience (45.2%, N=139) much prefer to use professional books as an information source than those who had more than six years or less than one year experience. (Table 4) Next it was found that there were associations between work experience of the respondents in terms of whether they prefer to use library as an information source.($X^2(9) = 17.85$, $P = 0.037$) Those who had 1-5 year experience (43.3%, N=133) in the teaching profession much prefer to use library as an information source than those who had more than six years or less than one year experience.

Further it showed that there were associations between work experiences in terms of whether they prefer to use the internet as an information source. ($X^2(12) = 26.46$, $P = 0.009$) Just below half of the respondents who had only 1-5 year work experience (49%, N=149) much prefer to use internet as an information source than those who had more than six years or less than one year experience. Lastly, there were associations between work experiences in terms of whether they prefer to use newspapers as an information source.($X^2(12) = 32.96$, $P = 0.001$) Just over 40% of teachers who had 1-5 year experience in the profession (41.4%, N=125) much prefer to use newspapers as an information source than those who had more than six years or less than one year experience. (Table 5)

5.2.4: Relationship between Location of School and Preferred Information Sources

In order to examine whether any association between preferred information sources and school location a series of chi- square test were conducted and the results are presented in the 5th Column of Table 2. The results indicate that there were association between school location and some information sources. Results further indicated (5th Column of Table 2) that there were no associations between school location in terms of colleagues ($X^2(8) = 11.53$, $P = 0.173$), professional books ($X^2(6) = 7.89$, $P = 0.246$), library ($X^2(6) = 3.15$, $P = 0.789$), magazines ($X^2(6) = 10.02$, $P = 0.124$), internet ($X^2(8) = 5.08$, $P = 0.749$) and newspapers ($X^2(8) = 12.54$, $P = 0.129$) as preferred information sources. There were, however, differences between work experience in terms of other two sources of information and the descriptive statistics of the two sources according to school location wise present in Table 6.

Table 6: Differences of Information Sources according to Location

	School Location	Information Source	
	Preference	Workshop	Personal knowledge
1	Central city		
I	Not preferred at all	3 (1%)	0
Ii	Not preferred	0	0
Iii	Neutral	22 (7.3%)	16 (5.4%)
Iv	Preferred	32 (10.6%)	36 (12%)
V	Strongly preferred	15 (5%)	20 (6.7%)
2	Suburb		
I	Not preferred at all	2 (0.7%)	0
Ii	Not preferred	0	0
Iii	Neutral	21 (7%)	12 (4%)
Iv	Preferred	51 (16.9%)	70 (23.4%)
V	Strongly preferred	45 (15%)	38 (12.7%)
3	Rural area		
I	Not preferred at all	0	0
Ii	Not preferred	7 (2.3%)	4 (1.3%)
Iii	Neutral	19 (6.3%)	6 (2%)
Iv	Preferred	52 (17.3%)	62 (20.7%)
V	Strongly preferred	32 (10.6%)	35 (11.7%)
	Total	301 (100%)	299 (100%)

Source: Survey data

First, there were differences between respondents' location of school in terms of whether they prefer to use workshops or conference as sources of information. ($X^2(8) = 25.87$, $P = 0.001$)

Those worked in suburb schools (31.9%) much prefer to use workshops as sources of information than those who worked in central city or rural schools. Last, there were differences between locations in terms of whether they prefer to use personal knowledge or experience as sources of information. ($\chi^2(6) = 18.96$, $P = 0.004$) More than quarter of the respondents who worked in suburb schools (25.7%) much prefers to use personal knowledge as sources of information than those who worked in central city or rural schools. (Table 6)

5.3. Relationship between selected factors and Preferred Communication Channel

The second specific objective of the study is to identify the relationship between the preferred communication channel used by the teachers and the selected factors. A series of chi-square test of independence were performed to find out if there were any relationship between the selected factors and preferred communication channel and the results present in Table 7.

5.3.1: Relationship between Gender and Communication Channel

The first set of analysis of chi-square tests for the independence between gender and the communication channel are presented in the 2nd Column of Table 7. The results indicate that there were association between gender and some communication channels. Results further indicate that there were no associations between gender in terms of telephone ($\chi^2(1) = 0.004$, $P = 0.949$), mobile ($\chi^2(1) = 0.041$, $P = 0.839$) and letters ($\chi^2(1) = 0.001$, $P = 0.982$) as communication channel. (See 2nd Column of Table 7)

Table 7: Results of Chi-square Test between Factors and Communication Channels

	Communication channel	Gender	Age	Experience	Location
		Chi-square	Chi-square	Chi-square	Chi-square
		P value	P value	P value	P value
1	Face to face discussions	$\chi^2(1) = 5.73$	$\chi^2(3) = 11.29$	$\chi^2(3) = 0.712$	$\chi^2(2) = 4.99$
		$P = 0.017$ <i>Significant</i>	$P = 0.010$ <i>Significant</i>	$P = 0.870$ <i>Not significant</i>	$P = 0.082$ <i>Not significant</i>
2	Telephone (fixed line)	$\chi^2(1) = 0.004$	$\chi^2(3) = 6.49$	$\chi^2(3) = 5.31$	$\chi^2(2) = 2.88$
		$P = 0.949$ <i>Not significant</i>	$P = 0.90$ <i>Not significant</i>	$P = 0.151$ <i>Not significant</i>	$P = 0.237$ <i>Not significant</i>
3	Mobile	$\chi^2(1) = 0.041$	$\chi^2(3) = 1.26$	$\chi^2(3) = 2.77$	$\chi^2(2) = 2.98$
		$P = 0.839$ <i>Not significant</i>	$P = 0.737$ <i>Not significant</i>	$P = 0.428$ <i>Not significant</i>	$P = 0.225$ <i>Not significant</i>
4	Letters (Postal mail)	$\chi^2(1) = 0.001$	$\chi^2(3) = 6.42$	$\chi^2(3) = 2.12$	$\chi^2(2) = 12.27$

		$P = 0.982$ Not significant	$P = 0.093$ Not significant	$P=0.550$ Not significant	$P = 0.002$ Significant
5	Internet based services	$\chi^2(1) = 6.72$ $P = 0.010$ Significant	$\chi^2(3) = 33.33$ $P < 0.001$ Significant	$\chi^2(3) = 45.61$ $P < 0.001$ Significant	$\chi^2(2) = 1.01$ $P = 0.604$ Not significant

*significant at 0.05 level

On the other hand, there were differences between genders of the respondents in terms of three other communication channels and descriptive statistics on the differences are presented in Table 8.

Table 8: Differences of Communication Channels according to Gender

s/n	Communication channels	Male		Female	
		Yes	No	Yes	No
1	Face to face discussions	36 (12%)	0	228(75.7%)	37 (12.3%)
2	Internet	31(10.4%)	5(1.7%)	252(84.6%)	10(3.4%)
3	Mass media	28(9.3%)	8(2.6%)	238(78.8%)	28(9.3%)

Source: Survey data

First, the male and female respondents differed in terms of whether they use face to face discussions as communication channel. ($\chi^2(1) = 5.73, P = 0.017$) Specifically, female respondents (75.7%) were more prefer to use face to face discussions than their male counterpart. Second, there were differences between the male and female in terms of whether or not they use internet based modes as communication channels. ($\chi^2(1) = 6.72, P = 0.010$) Female teachers (84.6%) were most likely to use internet based modes as communication channels than men. Lastly, male and female respondents differed in terms of whether they use mass media as communication channel. ($\chi^2(1) = 4.13, P = 0.042$) Specifically, female respondents (78.8%) were more prefer to use media than their male counterpart. (Table 8)

5.3.2 The Relationship between Age and Communication Channel

The next series of chi-square tests for the independence between age and the communication channel are presented in 3rd Column of Table 7. The analysis of chi-square tests of independence were performed to determine if there were any associations between ages of the respondents in terms of whether or not they use each mode of communication as communication channel. The results indicate that there were association between age and some communication channels. Results further indicate that there were no associations between age in terms of

telephone ($X^2(3) = 6.49$, $P = 0.090$), mobile ($X^2(3) = 1.26$, $P = 0.737$) and letters ($X^2(3) = 6.42$, $P = 0.093$) as communication channel. (See 3rd Column, Table 7) On the other hand, there were differences between ages of the respondents in terms of three other communication channels and the differences are showed in Table 9.

Table 9: Differences of Communication Channels according to Age

s/n	Communication channel	Age			
		20-30	31-40	41-50	<50
1	Face to face discussions	50(16.6%)	163(54.2%)	46(15.3%)	5(1.7%)
2	Internet	60(20.1%)	167(56%)	54(18.1%)	2(0.7%)
3	Mass media	47(15.6%)	164(54.3%)	50(16.6%)	5(1.7%)

Source: Survey data

First, there were differences between ages of the respondents in terms of whether they use face to face discussions as communication channel. ($\chi^2(3) = 11.29$, $P = 0.010$) The respondents who belong to 31-40 year aged category (54.2%) more preferred to use face to face discussions as communication channel than those who were in other age categories. Second, there were differences between ages of the respondents in terms of whether they use internet based communications mediums such as email, Facebook, web chats, wikis, blogs etc. as communication channel. ($\chi^2(3) = 33.33$, $P < 0.001$) Middle aged category (56%) who were in 31-40 years aged group preferred to use internet based channels as communication channel than those who were in other age categories. Finally, there were differences between ages of the respondents in terms of whether they use media such as radio, TV, Newspapers etc. ($\chi^2(3) = 11.79$, $P = 0.008$) The respondents who belong to 31-40 year aged category (54.3%) more preferred to use mass media as communication channel than those who were in other age categories. (Table 9)

5.3.3 The Relationship between Experience and Communication Channel

The next of a series of chi-square tests were conducted to determine whether any associations between work experience and communication channel. As it can be gleaned in Table 7, there were association between work experience and some communication channels. (See Table 7, 4th

Column) As revealed in the Table 7, there were no associations between work experience in terms of face to face discussions ($X^2(3)=6.49$, $P = 0.090$), telephone ($X^2(3)=6.49$, $P = 0.090$), mobile ($X^2(3) =1.26$, $P = 0.737$) , letters ($X^2(3) =6.42$, $P = 0.093$) and mass media as communication channel. However, there were associations between experiences of the respondents in terms only one communication channel, i.e. internet based communication. It was found that there were associations between experience of the respondents in terms of whether they use internet based communications mediums such as email, Facebook, web chats, wikis, blogs etc. as communication channel. ($\chi^2 (3) =45.61$, $P < 0.001$) More than half of the respondents (51.7%) who had 1-5 year work experience in teaching profession preferred to use internet based channels as communication channel than those who had below one year or more than six year work experience.

5.3.4: Relationship between School Location and Communication Channel

The next of a series of chi-square tests were conducted to determine whether any associations between school location and preferred communication channel used. The analysis of chi-square tests of independence were performed to determine if there were any associations between these two variables and the results indicate that there were association between school location and some communication channels. (See 5th Column in Table 7) As revealed in the Table 7 (5th column) , there were no associations between school location in terms of face to face discussions ($X^2(2)=4.99$, $P = 0.082$), telephone ($X^2(2)=2.88$, $P = 0.237$), mobile ($X^2(2) =2.98$, $P = 0.225$) , internet based mediums ($X^2(2)=1.01$, $P = 0.604$) and mass media as communication channel. ($X^2(2) =0.987$, $P = 0.611$) However, there were associations between locations in terms only one communication channel, i.e. letters. (Column 4, Table 7) It was found that there were differences between location of the respondents in terms of whether they use letters or postal mail as communication channel. ($\chi^2 (2) =12.27$, $P =0.002$) More than fifteen percent of respondents (15.5%) who work in rural area schools prefer to use letters as communication channel than those who work in schools situated in central city or suburbs. The reason might be the infrastructure facilities of the rural area are not much developed when compared to town area, therefore teachers who were in rural area tend to be used traditional medium like postal mail for communication activities.

5.4. Relationship between Demographic Variables and Preferred Information Format

The third specific objective of the study is to identify the relationship between the preferred information format and four selected factors. In order to achieve this objective, a series of chi-square test of independence were performed and the results are presented in Table 10.

Table 10: Results of Chi-square between Selected Factors and Information Format

Preferred format	Gender	Age	Experience	Location
	Chi square	Chi square	Chi square	Chi square
	P value	P value	P value	P value
Preferred information format(print/electronic/both)	$\chi^2(2)13.79$	$\chi^2(6) 13.77$	$\chi^2(6)12.54$	$\chi^2(4)20.21$
	$P = 0.001$ <i>Significant</i>	$P = 0.032$ <i>Significant</i>	$P = 0.051$ <i>Not significant</i>	$P < 0.001$ <i>Significant</i>

**significant at 0.05 level*

As it can be gleaned in Table 10, there were associations between gender of the respondents and preferred information format. ($\chi^2 (2)13.79$, $P = 0.001$) Nearly two third of females prefer to use both print and electronic format as an information format (73.4%) than men. With regard the differences between preferred information format and age, the chi square value of 13.77 showed that there was a relationship between preferred information formats and age at 0.032 level of significant. Here the p value is less than the critical value (0.05) therefore the relationship was significant. (See Table 10, 3rd Column) More than 45% of the respondents who belongs to 31-40 aged categories (45.9%) prefer to use both formats i.e. print and electronic than those who were in other aged categories.

In terms of associations between preferred information format and work experience, the chi square value of 12.54 showed that there was no relationship between preferred information formats used and work experience at 0.051 level of significant. Here the p value is greater than the critical value (0.05) therefore the relationship was not significant. (Table 10, 4th Column) As revealed in Table 10, in terms of differences between preferred information format and location of school, the chi square value of 20.21 showed that the significant relationship between preferred information formats used and location of school at 0.001 level of significant. Here the

p value is less than the critical value (0.05) therefore the relationship was significant. (Table 10, 5th Column) Nearly one third of respondents who work in suburb school prefer to use both information formats than those who work in central city or rural area schools. Half of the respondents who work in central city schools prefer to use printed format only.

5.5. Relationship between Demographic Variables and Preferred Language

The fourth specific objective of the study is to identify the relationship between the preferred language and the selected factors. To achieve the objective, chi-square test of independence was performed and the results are presented in Table 11 below.

Table 11: Results of Chi-square Test between Selected Factors and Preferred Language

	Preferred language	Gender	Age	Experience	Location
		Chi square	Chi square	Chi square	Chi square
		P value	P value	P value	P value
	Preferred language (Sinhalese/English or both)	$X^2(2) 0.401$	$X^2(6) 7.027$	$X^2(6) 15.522$	$\chi^2(4) 3.178$
		$P = 0.818$ <i>Not significant</i>	$P = 0.318$ <i>Not significant</i>	$P = 0.017$ <i>Significant</i>	$P = 0.528$ <i>Not significant</i>

**significant at 0.05 level*

The first set of analysis of chi-square tests for the independence between gender and the preferred language are presented in 2nd Column of Table 11. The results indicate that there were no associations between gender and the preferred language. ($X^2(2) 0.401$, $P = 0.818$) The second set of analysis of chi-square tests for the independence between age and the preferred language are presented in Table 11 (3rd Column) The results indicate that there were no associations between gender and the preferred language. ($X^2(6) 7.027$, $P = 0.318$) The next set of analysis of chi-square tests for the independence between experience and the preferred language are presented in 4th Column of Table 11. The results indicate that there was association between experience and the preferred language. ($X^2(6) 15.522$, $P = 0.017$) Nearly thirty percent of the respondents who had 1-5 year work experience in teaching profession (29.2%) prefer to use both languages (Sinhalese and English) than those who had either less than one year or more than six years work experience as teachers. In other words, novice teachers more like to use both languages when searching information. The last set of analysis of chi-square tests for the

independence between school location and the preferred language are presented in 5th Column of Table 11. The results indicate that there were no association between location and the preferred language. ($X^2(4) 3.178, P = 0.528$)

5.6 The relationship between Selected Factors and Location of Information

The fifth specific objective of the study is to identify the relationship between the location of information and selected factors. To achieve the objective, a series of chi-square test of independence were performed and the results are presented in Table 12.

5.6.1 The relationship between Gender and Location of Information

The first set of analysis of chi-square tests for the independence between gender and the location of access are presented in 2nd Column of Table 12. The results indicate that there were significant association between gender and the location of access. (See Table 12, 2nd Column)

Table 12: Results of Chi-square test between Selected Factors and Location of Information

	Location of access	Gender	Age	Experience	Location
		Chi-square	Chi-square	Chi-square	Chi-square
		P value	P value	P value	P value
1	From school	$\chi^2(1) 0.073$	$\chi^2(3) 13.67$	$\chi^2(3) 6.51$	$\chi^2(2) 0.473$
		$P = 0.787$ Not significant	$P = 0.003$ Significant	$P = 0.089$ Not significant	$P = 0.789$ Not significant
2	Public library	$\chi^2(1) 7.01$	$\chi^2(3) 8.35$	$\chi^2(3) 4.48$	$\chi^2(2) 4.47$
		$P = 0.008$ Significant	$P = 0.039$ Significant	$P = 0.214$ Not significant	$P = 0.107$ Not significant
3	Home	$\chi^2(1) 4.96$	$\chi^2(3) 6.48$	$\chi^2(3) 4.07$	$\chi^2(2) 3.56$
		$P = 0.026$ Significant	$P = 0.090$ Not significant	$P = 0.253$ Not significant	$P = 0.169$ Not significant
4	Book shop	$\chi^2(1) 2.52$	$\chi^2(3) 2.98$	$\chi^2(3) 2.98$	$\chi^2(2) 5.58$
		$P = 0.112$ Not significant	$P = 0.395$ Not significant	$P = 0.020$ Significant	$P = 0.061$ Not significant

*significant at 0.05 level

As revealed in the Table 12, there were no associations between gender in terms of school ($X^2(1) 0.073, P = 0.787$) and book shop as place for accessing information. ($X^2(1) 2.52, P =$

0.112) There were, however, associations between gender in terms of the other accessing places of information and Table 13 shows the said associations.

Table 13: Associations of Location of Information according to Gender

s/n	Location of information	Male		Female	
		Yes	No	Yes	No
1	Public library	11(3.8%)	25(8.6)	138(47.4%)	117(40.2%)
2	Home library (private collection)	33(11.1%)	3(1%)	195(65.9%)	65(22%)

Source: Survey data

First, there were associations between genders of the respondents in terms of whether they prefer to use public library for locating information. (χ^2 (1) 7.01, $P = 0.008$) Females (47.4%) preferred to access through public library than male. Finally, there were differences between genders of the respondents in terms of whether they prefer to use home library or private collection at home for locating information. (χ^2 (1) 4.96, $P=0.026$) Females (65.9 %) preferred to use home library or private collection as location of information than their male counterpart. (Table 13)

5.6.2 The relationship between Age and Location of Information

As revealed in the Table 12 (3rd Column) , there were no associations between age in terms of home library / private collection (X^2 (3) 6.48, $P = 0.090$) and book shop as place for accessing information. (X^2 (3) 2.98 $P = 0.395$) There were, however, associations between ages in terms of two other places of locating information. As it can be gleaned in Table 12 (3rd Column), there were differences between ages of the respondents in terms of whether they prefer to use school (library or IT lab) for locating information. (χ^2 (3) 13.67, $P = 0.003$) Just over half of the respondents who belong to 31-40 year aged category (56.9%) preferred to use school for locating information than those who were in other aged categories. (See table 13) There were differences between ages of the respondents in terms of whether they prefer to use public library for locating information. (χ^2 (3) 8.35, $P = 0.039$) Nearly one third of the respondents who were in 31-40 year aged group (34.4%) preferred to access through public library than those who were in other aged categories. (Table 13)

Table 13: Differences of Location of Information according to Age

s/n	Location of information	Age			
		20-30	31-40	41-50	<50
1	School	55(18.1%)	173(56.9%)	51(16.8%)	3(1%)
2	Public library	23(7.9%)	100(34.4%)	24(8.2%)	2(0.7%)

Source: Survey data

5.6.3. Relationship between Experience and Location of Information

The next set of chi-square tests of independence were performed to determine if there were any differences between experience of the respondents and locating information. The results indicate that there were significant associations between teachers' work experience and the location of access to information. (See Table 12 of 4th Column) As revealed in the Table 12 , there were no differences between experience in terms of school ($X^2(3) 6.51, P = 0.089$), public library ($\chi^2(3) 4.48, P = 0.214$ and home as place of accessing information. ($X^2(3) 4.07, P = 0.253$) There were, however, differences between work experience in terms of book shop ($\chi^2(3) 2.98, P = 0.020$) as a place of access. More than 40% of respondents (40.8%) who had 1-5 year work experience preferred to use bookshop to access for information than others who had different work experience. That means the novice teachers more likely to use bookshop as means for accessing information.

5.6.4. Relationship between School Location and Location of Information

The next set of chi-square tests of independence were performed to determine if there were any differences between location of school and location of information. The results indicate that there were no association between location of school and location of information. (See Table 12 of 5th Column)

6. Conclusion

This study examined to find out whether any relationship between school teachers' information seeking activities and the four factors (gender, age, experience and location) selected. The findings established that the females were more likely to use workshop, professional book, library, magazine and newspaper as information sources while face to face discussions, internet and mass media as communication channels and public or home library as location of

information than their male counterparts. The results further revealed that the middle aged teachers (31-40 years) preferred to use colleagues, professional books, internet, newspaper and personal knowledge as information sources while face to face discussions, internet and mass media as communication channels and both formats of information when seeking information. They also prefer to use school, the internet and public library to locate information than those who were in other aged categories.

The study also found that the novice teachers who had 1-5 experience in the profession mostly preferred to use colleagues, professional books, library, internet and newspaper as sources of information followed by internet based communications mediums, both languages and bookshop to access for information than their seniors and juniors. The study further established that suburb school teachers much likely to see workshop and personal knowledge as information sources and use both information formats than those who worked in central city or rural area schools. On the other hand, teachers in rural schools much prefer to use postal and use the internet for locating information than teachers in other areas. Overall, it can be concluded that there was no strong evidence of relationship between the four factors and the school teachers' information seeking activities particularly when they use information sources, communication channels, language preference and locating information. However it should be noted that there were significant associations between the teachers' preferred information format and the four factors selected.

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