

## TEACHERS' INFORMATION LITERACY LEVELS IN ONE CLUSTER SCHOOL IN MALAYSIA

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**Abstract:** *Information literacy (IL) has become essential, especially in the field of education. The implementation the IL skills program in educational institutes is no longer the sole responsibilities of the school librarians but also shared by those involved in educating the students with special reference to the teachers. However, the success of the IL skill programs depends on the capability of the teachers which is also dependent on their IL levels. The main objective of the study is to investigate the level of IL skills among the teachers and their awareness of the importance of IL skills. The IL skills of the teachers need to be identified in order to plan for the right approach to improve their IL skills. The levels of teachers' awareness on the importance of IL towards raising the academic excellence among teachers and students also need to be measured. Questionnaires were used as the tools to collect the data and supported with interviews. The results show that IL skills level of teachers in SMK Abdul Rahman Talib Kuantan are high and most of the teachers are aware of the importance of IL skills. However, the Ministry of Education should provide more formal IL programs for teachers to ensure that the transmission of IL skills in the classrooms are efficient and the challenges faced by the teachers can be surmounted.*

**Keywords:** *Information literacy, School teachers, Information skills, Information Literacy Programmes, School Resource Centre*

## **INTRODUCTION**

The task of providing information skills in educational institutes does not lie solely in the hands of the librarians and information professionals but this responsibility has shifted to the teachers as well. Information literacy should be a constant learning process that should be performed by all groups of people (Mohammed-Saleh, 2005). The development of these skills are closely related to the teaching and learning processes in educational institution, as it is the most suitable place for educating and developing IL skills (Singh, 2006). Within the context of secondary school as an educational institution, it helps expose students to be more information literate and skilful in finding, evaluating and using information required in early stages of learning. Teachers spend most of their time with students in schools. It is appropriate then for them to be involved in the transfer of information and educating information literacy skills in schools. Hence, teachers should be skilful and information literate, in the first place in order to be able to be an effective change agents.

Teachers and media librarians have been given the responsibility to develop the IL skills programs in schools. However, this responsibility should also be given to subject teachers as well, but it is not known to what extent are they aware of IL and at which level of IL skills are they in. All teachers need to be trained to become information literate so that they are able to impart the IL skills to the students. Teachers are regarded as the suitable persons to undertake this task in view of their competencies in designing and imparting those skills and practices to students (Emmons, et al., 2009). Even though the IL skills are not in the syllabus of school's curriculum, they could apply it indirectly through students' exercises and learning activities in the class.

## **LITERATURE REVIEW**

Information is one of critical assets for individuals; and it is available anywhere and can be easily accessible. Individuals need to have the skill in retrieving, organising, managing, handling, and utilising the information. Information literacy allows people to validate or counter expert opinion and become more competitive, independent and confident with themselves (Correia-and Teixeira, 2003). Those with high IL level would be able to know their information needs, able to retrieve it and be actively engaged in the world of ideas and knowledge. They are also able to display confidence in their ability to solve problems and know the relevant information as the IL level is linked with the notion of thinking skills in particular, problem-solving skills (Edzan, 2008). Furthermore, they are able to operate the information easily in any situation where there are multiple answers or no answer at all. People with IL skills are able to hold high standard of works and create high quality products. Consequently, IL has a great influence, not only in the learning process but also in the personal development of individuals and prepares them for life as knowledgeable citizens of the future. It is essential for individuals to have adequate information literacy background to ensure they are competent in their conduct

in their specific field. This would enable the country's goal to develop into a knowledge society moves in the right tract (Wallis, 2006).

### **Information Literacy and School Teachers**

Much efforts and initiatives have been done throughout the decades in order to enhance the IL competency among teachers. As highlighted by Singh (2006), the efforts and initiatives are critical for developing the base of information literacy in any nation. The suitable channel for all the efforts and initiatives is via the education route. In order to ensure the college and university students become information literate, it should begin from the early stage, at the secondary schools. Efforts and initiatives should involve school resource centres (SRC), schools, pejabat pelajaran daerah/district education office Gombak (PPDs), Jabatan Pendidikan Negeri/State Education Department (JPN), Ministry of Education (MOE) and teachers. Teachers are the main focus in any IL activity because they are synonymous with the education field and close to students, after their parents. The approach to involve active teachers' participation in educating students with IL skills is regarded as more relevant and effective means instead of other approaches.

### **METHODOLOGY**

The purpose of this study is to investigate the skills and awareness and the information literacy level among secondary school teachers at Abdul Rahman Talib Kuantan National Secondary, using the survey method. The questionnaires were divided into six sections, with Section A, asking for general question among the staff which is a demographic questions; Section B, identifying the teachers' levels of information literacy; Section C, finding the teachers' awareness of the importance of IL skills; Section D, providing the IL skills during the teaching and learning sessions; Section E, focussing on the types of training the teachers had attended in IL skills while Section F, defining challenges faced by all the teachers in developing their IL skills. The questionnaires were provided with the total of 65 questions, including close-ended and open-ended statements, multiple-choice, as well as scaled items (Likert-style).

## FINDINGS

### Section A: Demographic Data

Section A summarizes the demographic data of the respondents by gender, age, race, highest education, professional qualification. Figure 1 shows that the majority of the respondents, 57 (76.0%) were females and only 18 (24.0%) were males. It is not surprising because there are only 24 male teachers out of 102 teachers in this school, while the female teachers were 78. Therefore, the ratio of male teachers to female teachers is 4: 13. In terms of age, most of the respondents (25, 33.3%) were 45 and above, followed by 14 (18.7%) with the age of 25-29, 13(17.3%) were 40-44), 11 (14.7%) were 30-34 and 35-39, and 1 (1.3%) with the age lower than 25. The large group of respondents that is 64, (85.3%) were Malays followed by 10 respondents (13.3%) who were Chinese, and only 1 out of 107 who was Indian (1.3%).

With regards to the level of education the findings revealed that majority of the respondents, which is 68, (90.6%) were bachelor degree holders, followed by 6 (8.0%) respondents with master degrees and only 1 respondent (1.33%) held a diploma qualification. Meanwhile, in the professional qualification, the majority of respondents are also from the bachelor degree holders (40, 53.3%), followed by diploma holders (27, 36.0%) and certificate (8, 10.7%). The findings show that majority of teachers from this cluster school have high level of educational qualification.

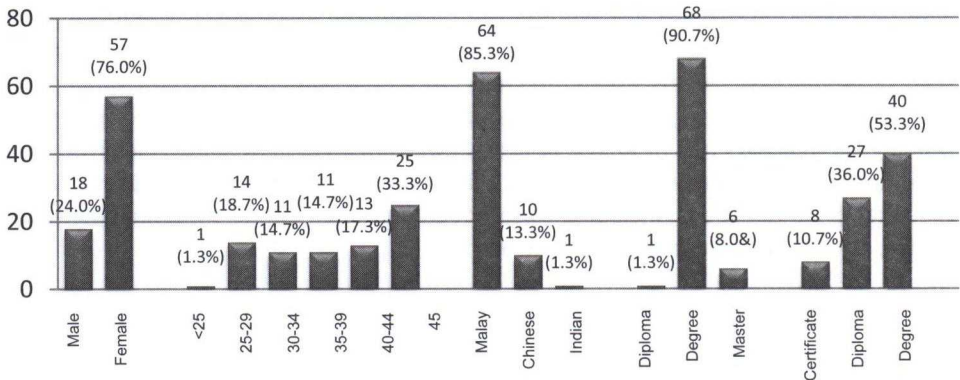


Figure 1: Demographic Data of Teachers

**Section B: Information Literacy Skills**

Table 1: Ability to Find the Information Effectively

QUESTIONS			[1]	[2]	[3]	[4]	TOTAL
Q28. The ability to find information in library	Frequency		8	53	13	1	75
	Percentage (%)		10.67%	70.67%	17.33%	1.33%	100.0%
Q29. The ability to retrieve information via electronic resource	Frequency		17	46	11	1	75
	Percentage (%)		22.67%	61.37%	14.67%	1.33%	100.0%
Q30. The ability in general to find information effectively	Frequency		14	49	11	1	75
	Percentage (%)		18.67%	65.33%	14.67%	1.33%	100.0%

DHFB ( [1] VERY GOOD, [2] GOOD, [3] INTERMEDIATE, [4] LOW )

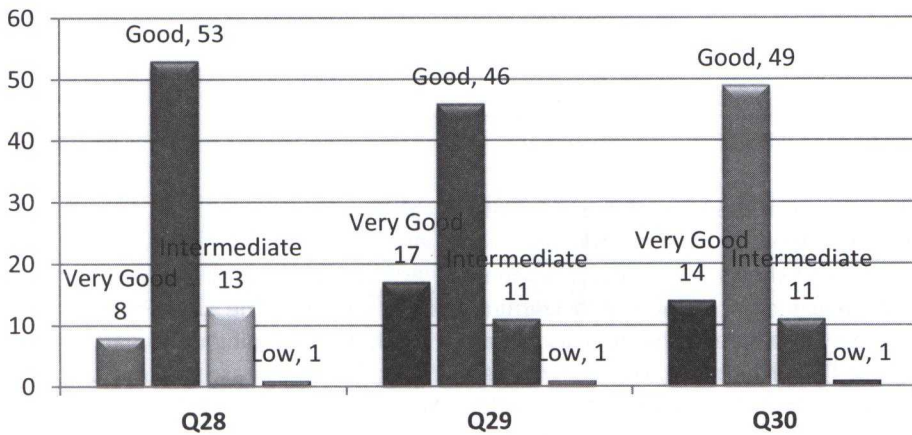


Figure 2: Information literacy skill levels of the respondents

From the illustrations above, (Table 1 and Figure 2), most of the respondents assessed themselves as 'Good' in finding information in the library, that is 53, (70.7%), while 46, (61.3%) via electronic resources and through other means constituted 49 respondents, (65.3%).

### Section C: Awareness of the Importance of IL Skills

This assessment is focused on two parts which are the awareness of the importance of IL skills to the teachers and awareness of the importance of IL skills that benefit the students from the perspective of the teachers.

Table 2: Awareness of the Importance of IL Skills (1)

QUESTIONS			[1]	[2]	[3]	[4]	[5]	TOTAL
Q33.	IL assist in teaching and learning process in class	Frequency	0	0	3	33	39	75
		Percentage (%)	0.00%	0.00%	4.00%	44.00%	52.00%	100.00%
Q34.	IL assist in keep teacher up to date with IT growth	Frequency	0	2	1	34	38	75
		Percentage (%)	0.00%	2.67%	1.33%	45.33%	50.67%	100.00%
Q35.	IL assist in evaluating the information	Frequency	0	0	1	47	27	75
		Percentage (%)	0.00%	0.00%	1.33%	62.67%	36.00%	100.00%
Q36.	IL assist in critical thinking and resolve the problem	Frequency	0	1	4	39	31	75
		Percentage (%)	0.00%	1.33%	5.33%	52.00%	41.33%	100.00%
Q37.	IL assist users to be efficient and effective in information searching	Frequency	0	0	3	39	33	75
		Percentage (%)	0.00%	0.00%	4.00%	52.00%	44.00%	100.00%

( [1] STRONGLY DISAGREED, [2] DISAGREED, [3] NATURAL, [4] AGREED, [5] STRONGLY AGREED )

### The Awareness of the Importance of IL Skills to the Teachers

As shown in Table 2, most of the respondents were aware of the importance of the IL skills. The data shows that 96.0% respondents were aware that IL skills are important in assisting teachers in teaching and learning process in class. The same percentage of respondents also agreed that IL skills can assist teachers in keeping up to date with the growth of IT. Furthermore, respondents agreed that IL can also assist in evaluating the information (98.7%), develop critical thinking and resolving the problems (93.3%) and help users to be efficient and effective in information searching (96.0%).

Table 3: Awareness of the Importance of IL Skills (2)

QUESTIONS		[1]	[2]	[3]	[4]	[5]	TOTAL
Q3 8. IL assist students to be independent in information searching	Frequency	0	0	0	40	35	75
	Percentage (%)	0.0	0.00	0.00	53.3	46.6	100.0
Q3 9. To educate IL skill in classes is the best approach	Frequency	0	0	2	40	33	75
	Percentage (%)	0.0	0.00	2.67	53.3	44.0	100.0
Q4 0. The syllabus is giving more freedom for students	Frequency	0	11	12	38	14	75
	Percentage (%)	0.0	14.6	16.0	50.6	18.6	100.0
Q4 1. IL skills education should be put include in class for secondary school	Frequency	0	1	4	32	38	75
	Percentage (%)	0.0	1.33	5.33	42.6	50.6	100.0

( [1] STRONGLY DISAGREED, [2] DISAGREED, [3] NATURAL, [4] AGREED, [5] STRONGLY AGREED )

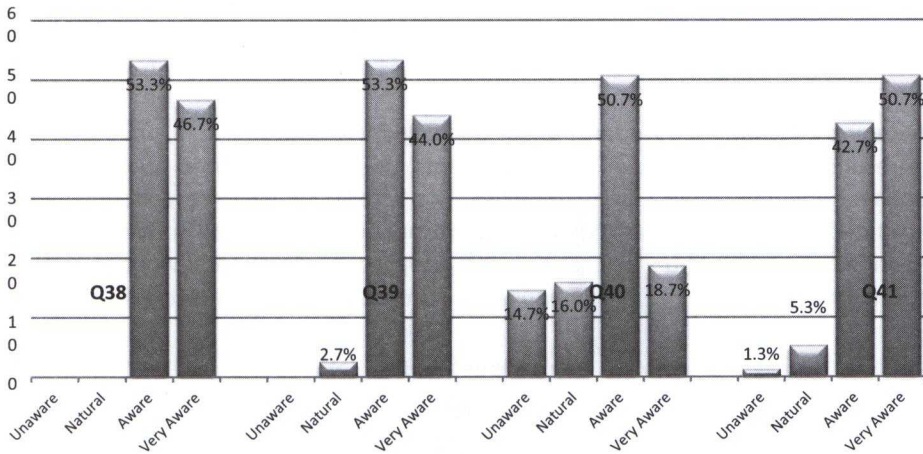


Figure 3: Percentage of Response for Q38-Q41

**The Awareness of the Importance of IL Skills that Benefit the Students**

As revealed by Table 3 and Figure 3, all respondents (100.0%) were aware that IL is able to assist students to be independent in information searching. This is followed by 73 respondents (97.3%) who were aware that educating IL skills in the classroom is the best approach. On the other hand, 70 respondents (93.4%) are aware that IL skills should be included in teaching and learning process in secondary schools.

## Section D: Application of IL Skills Education in Classroom

Section D of the questionnaire attempted to identify and analyze the frequency of respondents' application of the IL skills in the classrooms. The results are shown in Table 4.

Table 4: Frequency of IL Education Application in the Classroom

QUESTIONS		[1]	[2]	[3]	[4]	[5]	TOTAL
Q42.	Frequency	4	9	11	36	15	75
	Percentage (%)	5.33%	12.00%	14.67%	48.00%	20.00%	100.00%
Q43.	Frequency	3	11	18	30	13	75
	Percentage (%)	4.00%	14.67%	24.00%	40.00%	17.33%	100.00%
Q44.	Frequency	2	8	19	33	13	75
	Percentage (%)	2.67%	10.67%	25.33%	44.00%	17.33%	100.00%
Q45.	Frequency	4	4	26	32	9	75
	Percentage (%)	5.33%	5.33%	34.67%	42.67%	12.00%	100.00%
Q46.	Frequency	2	8	13	46	6	75
	Percentage (%)	2.67%	10.67%	17.33%	61.33%	8.00%	100.00%
Q47.	Frequency	2	9	12	48	4	75
	Percentage (%)	2.67%	12.00%	16.00%	64.00%	5.33%	100.00%
Q48.	Frequency	1	14	10	40	10	75
	Percentage (%)	1.33%	18.67%	13.33%	53.33%	13.33%	100.00%

[1] Never, [2] Seldom, [3] Sometime, [4] Frequently, [5] Always,

### Advice and educating the students about the plagiarism issues

The results show that most of the respondents, 36, (48.0%) advised and taught their students frequently about plagiarism issues. This is followed by 15 respondents (20.0%) who stated that they 'always' advised and 11 respondents (14.7%) as 'sometimes,' and, 9 respondents (12.0%) who said that they only applied it infrequently while the other 4 respondents (5.3%) said they never applied it in the classrooms (See Figure 4).

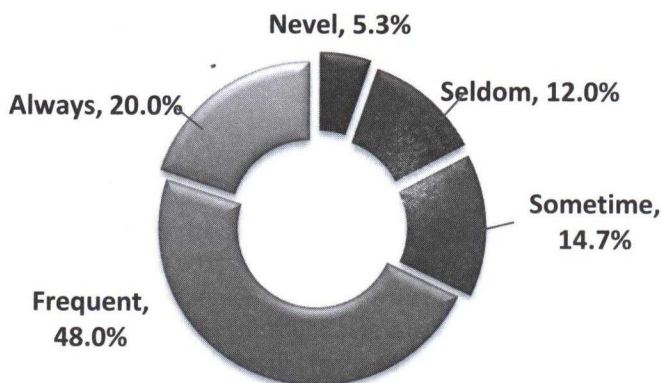


Figure 4: Frequency for Q42



The findings also found that most of the respondents (40 or 53.3%) agreed that the teachers frequently guided students in their assignments by using resources from the library (SRC) other than the text books. Only 1 respondent (1.33%) said that he or she has never applied it while 14 respondents (18.6%) stated that they frequently guided the students in using information sources from the library (see Figure 5).

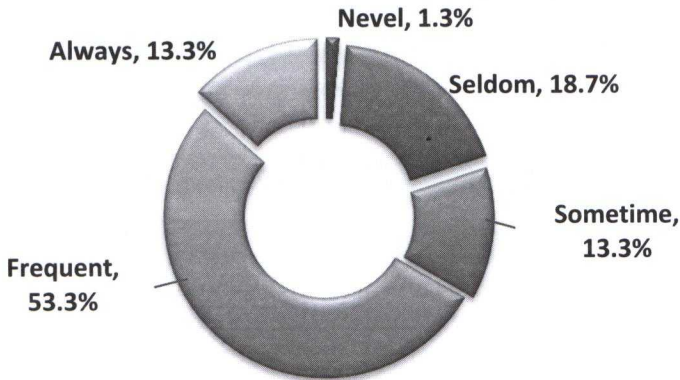


Figure 5: Frequency for Q48

#### SECTION E: IL Skills Programs/ Training Courses

The findings have identified the types of programmes attended by the teachers and the need for the additional programmes as shown in Figure 6 as below:

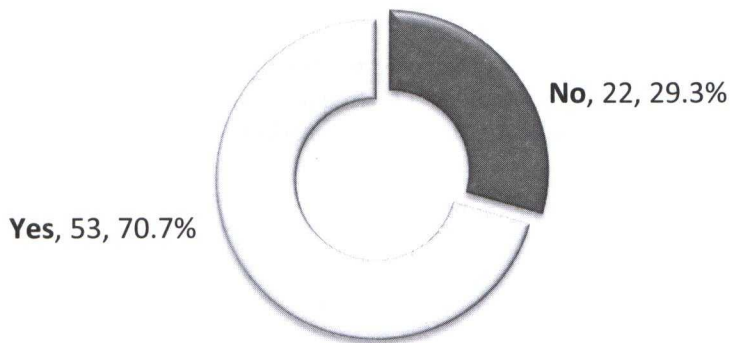


Figure 6: Frequency of Attending IL Programmes/ courses

The findings also showed that most of the respondents (53, 70.7%) have attended IL programs or short courses on information literacy and information skills, and the rest (22, 29.3%) have never been to any of the IL programs. They also stated that the programs and short courses on IL skills were conducted by several institutions and organizations. The findings are illustrated in Figure 7.

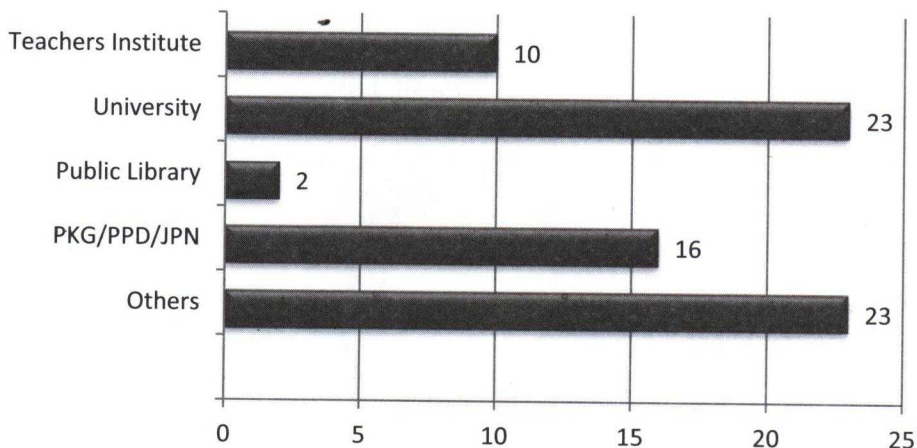


Figure 7: Institution/Organization that conduct the IL programmes

Figure 7 also presents data and list of institutions or organizations which conducted the IL programs attended by the respondents. Most of the respondents (23 frequencies) answered that they have attended IL programs, conducted by their universities during their undergraduate studies. The findings are not surprising because some universities, such as the University of Malaya in Malaysia has already implemented a credit course in Information Literacy skills in the university syllabus/programs (Edzan, 2008; Mohd Sharif and Zainab, 2000; Mohd Sharif, 2008).

The respondents also stated that they used to attend programs conducted by the school which answers the part on 'others' (23 frequencies), followed by (16 frequencies) PKG/PPD/JPN, 'Teachers Institutes' (10 frequencies) and 'Public library' (2 frequencies).

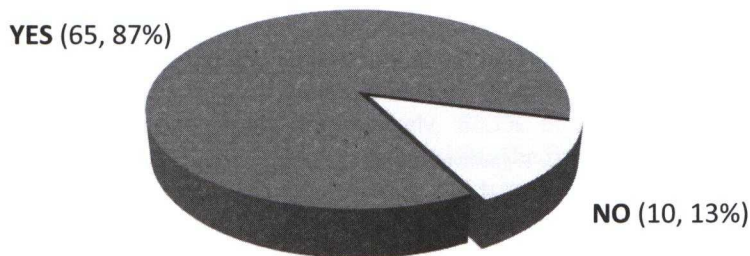


Figure 8: The Needs for Additional of IL Skills Programs

### The needs to additional programs of IL skills

Figure 8 shows that most of the respondents (65, 86.7%) required additional IL skills programs and the rest of the respondents (10, 13.3%) were reluctant to have additional programs. They reason for not agreeing with having additional programs: are (1) the respondents are reaching the retiring age; (2) the respondents stated that they can ask the media and library teachers to do the tasks; and (3) they are not keen to learn about IL skills. Meanwhile, the 86.7% of respondents who required additional IL skills programs provides to following reasons: adds more skills and knowledge as well as for research skills; assist in searching for accurate information sources, and in teaching and learning process in schools/classes; educating and enhancing information literacy skills; and enriching the knowledge for life-long education.

From the answers given in the questionnaire, and the data analysed in Table 2 and Figure 8, it can be concluded that the levels of teachers' awareness on IL are high and the answers for Q55 were influenced and reflected by their perceptions.

## Section F: Challenges Faced by Teachers in Developing IL

Section F of the questionnaires attempted to find out the challenges faced by the teachers in developing IL skills in the school. The answer given has been analysed and the results are shown in Table 5.

Table 5: Challenges Faced by Teachers in Developing IL

NO	CHALLENGES	RESPONSE (PERCENTAGE)
1.	The growth of IT impact teachers role and position as a person who responsible to endorse students' IL skills	Neutral (4.0%); Agree (57.3%), Strongly Agree (38.7%)
2.	to understand the real concepts and roles of a person who responsible to endorse students' IL skills	Disagree (1.3%); Natural (10.7%); Agree (56.0%), Strongly Agree (32.0%)
3.	Educate students of the importance of IL to ensure they get prepare for long-life education	Neutral (6.7%); Agree (41.3%), Strongly Agree (52.0%)
4.	Educate students of the importance of IL to ensure they know how to learn	Neutral (2.7%); Agree (49.3%), Strongly Agree (48.0%)
5.	Educate students of the importance of IL to ensure they ready for the next level (IPT/working environment)	Agree (49.3%), Strongly Agree (50.7%)
6.	Generate and encourage the reading culture among students	Disagree (1.3%); Neutral (5.3%); Agree (46.7%), Strongly Agree (46.7%)
7.	Increase student IL skills	Neutral (2.7%); Agree (48.0%), Strongly Agree (49.3%)
8.	Guide students to the right path in developing knowledge society and competitive	Disagree (1.3%); Neutral (4.0%); Agree (44.0%), Strongly Agree (50.7%)
9.	Enhance the self-professional level	Disagree (1.3%); Neutral (2.7%); Agree (37.33%), Strongly Agree (58.67%)

The table indicates that most of the respondents (44, 58.7%) agreed that improving the level of professionalism is their biggest challenge among other challenges. The teachers' main challenge is ensure that they are IL literate in the first place before being able to teach information skills. As discussed by Emmons et al. (2009), they believed that IL skills are essential in preparing teachers to be thoughtful, critical, and ethical in implementing the evidence-based practices.

## **DISCUSSIONS**

Teachers from the cluster school under study should have at least a basic skill in information literacy because most of them are well qualified teachers, with many years of experience in educational fields. Interestingly, 83.1% of the respondents have regarded themselves as being 'good' in information skills. The findings also revealed that most of the respondents are more interested in electronic resources, especially the internet, instead of documented and paper-based information sources. Most of them believed that they have more skills in finding information via electronic resources (63 respondents, 84.0%) instead of finding sources from the library (61 respondents, 81.3%). This might occur because of (1) The growth of ICT literacy among teachers, (2) Implementation of teaching of Mathematics and Science in English from 2003-2007 which required their teaching and learning sessions to use ICT equipments and, (3) All the teachers are university educated and they are more familiar with the use of internet than the printed sources

IT literacy levels is based to a certain extent on the generation gap between teachers and students. It was found that students are more IT literate. As stated by Schroer (n.d) human population can be classified into several generations and in this study, the respondents have been classified based on their age. From the findings, 26 respondents (34.7%) are from the Generation Y, those who are more exposed to internet, online-based media and are IT literate. Meanwhile, only 24 respondents (32.0%) are from the Generation X, those who are regarded as belonging to a more educated generation (with bachelor or higher degree holders) and another 25 respondents (33.3%) are from the Generation Jones, which are very modest and not into internet and ICT based sources.

The study also shows that few teachers were from the group of intermediate and low IL skills and it can be concluded that 15.6% of the respondents were intermediate and 1.33% of the respondents were low in IL skills. The situation happens because of few possibilities as (1) the generation gap; (2) the lack of awareness of the importance of IL skills; (3) respondents attitudes towards the IL skills and the importance of IL skills to him or her and to others.

The level of awareness of the teachers towards the importance of the IL skills to them and to the society, especially students are high and impressive. From this finding, it answered the query why most of the teachers implemented IL in their teaching and learning process in the classroom. Consequently, as shown in the Section F, the findings stated 87.0% of the respondents agreed to have additional programs of IL skills in order to enhance their information skills and to broaden their knowledge. This response indirectly shows that teachers' level of awareness towards the importance of IL skill is high.

The results also show that 70.7% of the respondents have attended the IL skill programs or courses and majority of them attended the programmes conducted in their universities during their undergraduate or post graduate study. Additionally, although most of them are already good in IL skills, they are not reluctant to attend additional

programs or courses to gain more knowledge and awareness on the concepts of long-life education. The programs attended were more on ICT base in line with the growing application and importance of ICT. However, this situation can be improved if a formal information literacy skills program is given to the teachers during their training. According to Raja Abdullah and Saidina Omar (2003); the inexistence of formal information literacy program will contribute to the low information literacy. Hence, further initiatives to provide the library and information skills development program for teachers should be considered. From the analysis, it also shows that most of the teachers faced the challenge on how to improve and enhance self-professional level, the challenge toward developing the IL skills to the students and how to develop the IL skills in the schools environment. In the Malaysian schools' environment, teachers might be able to support the IL skills among students by providing and guiding the information-related activities for their students (Williams and Wavell, 2007).

In order to establish a thinking and open culture in schools it is recommended that IL skills is developed which involve a group of people collaborating and working together to ensure that the skill can be understood and practised. As suggested by Moore (2002), establishing thinking society is to endorse information literacy skills. There is need to enhance effective resource-based learning and teachers should coordinate with colleagues in developing a school culture that facilitates learning. It means that in terms of developing IL skills, the concepts of knowledge sharing and information sharing should also be included. Teachers should share their opinion on developing effective IL skill in schools. Besides that, in educating person or transferring the IL skills, more personal approaches is better and appropriate (Shenton, 2010). This backed by a more formal IL programs for teachers as highlighted by Raja Abdullah and Saidina Omar (2003). Policy-makers should take more initiatives to organize IL skills programs and the Education Department and the Ministry of Education must train the teachers to have the required IL skills and a standard applicable for all teachers in Malaysia should be formulated and also consider to place professionally trained librarian in the school library and resource centres..

From the findings, the respondents seemed to be more interested on electronic resources, especially, Internet while the school resource centre (SRC) are not fully utilized. Previous studies (Faisal and Nor Azian, 2006; Raja Abdullah and Saidina, 2003, Noruzi, 2004) revealed that this condition occurred because the library resources are limited and not up to date; the selections of materials are not relevant to the users' needs; and no promotion and encouragement were given for students to explore information material available in the SRC.

## **CONCLUSION**

The study shows that the respondents realized the importance of the IL skills, its benefits and ability in developing knowledge society, the study also concluded that teachers required the IL skills, especially in their daily tasks in school as well as in developing and upgrading their personal knowledge and skills. Teachers must first become information literate and are also required to understand how IL skills are taught to their students. The ability of the teachers to conceptualize the IL and relate it in the class as learning

tasks would be commendable. Teachers' awareness towards the importance of IL skills is essential. Follow up studies need to be conducted on assessing teachers' IL skills level in other secondary schools so that a comparison can be made for a more comprehensive improvement. For example, the study can be done to students in fully-resident schools, Smart schools, Cluster schools or in MARA Junior Science College (MRSM). Further research can also be conducted on the role of school principals or school administrators in implementing IL skills and developing teachers IL skills in schools or Teachers Training College Graduates, before they are assigned to schools.

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