

Determining the information literacy competence (ILC) of faculty members in University of Applied Sciences and Technology

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Abstract

Goal: The main goal of the study was to determine information literacy competency (ILC) of faculty members in University of Applied Sciences and Technology in Iran. **Method:** The study was implemented using a descriptive analytical method. The study tool was a researchers-design questionnaire and the population was all of faculty members in University of Applied Sciences and Technology were selected as statistical population for the study (n=140). **Findings:** The results showed that the teachers' ILC mean in University of Applied Sciences and Technology in Tehran for recognizing their information need was 3.28, for bridging previous knowledge with the current obtained information 3.33, for being acquainted with information resources and databases 3.13, for information search strategy 3.04, for information retrieving 2.89, for information evaluation and assess 2.98, for organizing information 3.01, and finally for managing citations 3.26. **Conclusion:** The research reported studied faculty members' IL status as 3.23 which is upper than the average. Overall, the ILC status is reasonable and it seems that faculty member could handle their scientific needs.

Keywords: Information Literacy (IL), ACRL standards, faculty members, University of Applied Sciences and Technology (UAST) in Iran

Introduction

Information literacy (IL) is defined commonly as knowledge of one's information needs and the ability to identify, locate, evaluate, organize and effectively use information to address issues or problems at hand. It is a prerequisite for participating effectively in the information society, and is part of the basic human right of lifelong learning (US National Commission on LIS, 2003). IL has been studied through a bulk of studies in various areas and fields. The basics and the criteria for evaluating information literacy are almost similar in previous studies, though there are some narrow angles which should be more discussed. One of those angles is the faculty members' IL status in University of Applied Sciences and Technology. The question is, therefore, if faculty members in University of Applied Sciences and Technology can handle their needs in the information era? And if they are capable of managing their information needs?

In higher education level, the information literacy is instructed for a variety of objectives: stand-alone courses or classes, e-learning, workbooks bases, course-related instruction, or course-integrated instruction. University systems are undertaking strategic planning to determine

information literacy competencies to add information literacy competence as a graduation requirement for students and teachers (Eisenberg, 2008).

There are various research performed around the globe dealing with information literacy. In Iran, too, many researchers have been engaged in the subject in current decades. Some of them are briefly reviewed as follows.

Kikha et al (2009) in their study investigated faculty members' IL Zabol University of Medical Sciences. They showed that the faculty members' scores of IL was higher than the average (mean=3.30). In another study in, Azad pilerod (2008) studied faculty members' IL in department library and information science in Tehran Universities. The study reported major problems of faculty members' IL as lack of print and online resources, and also lack of IL education. This study showed faculty members' IL in Zabol University was average. Moghadas zade (2005) studied the case for faculty members' IL in Mashhad open University and reported that status of faculty members' IL was in high level. They suggested that the University must set an IL course even in virtual mode. Faraj pahlo & Moradi moghadam (2004) investigated faculty members' IL in Ahvaz shahid chamran University. They showed that faculty members' IL was average and they need to increase the skills of information literacy with training.

Among international studies, Sharma (2010) research in India showed that most students in Punjab University can handle their information needs and also can assess retrieved information effectively. In a study carried out in Dhaka, Islam et al (2010) showed that the observed students were not in a reasonable status of IL and most times they were faced with problems in dealing with internet information resources. Ozdemir et al (2009) in their study investigated in-services teachers' IL. The result showed in-services teachers' IL in recognizing their information need and research information in Internet was very low.

By taking a brief review of many other studies in IL domain we can illuminate international interests in focusing over IL level, quality, and efficiency. The present study intended to evaluate faculty members' ILC in University of Applied Sciences and Technology in Tehran. The study also aims at revealing the relationship between the faculty members' demographics and their ILC, and specification of faculty members' IL status.

Methodology

This study is a descriptive analytical research carried out during a two month period from August to December, 2011. The study population included all faculty members in University of Applied Sciences and Technology that Used stratified random sampling method and among them selected 31, 43, 45, 47 and Municipality unites and studied 140 faculty members in University of Applied Sciences and Technology in Tehran. The study tool was an authors' designed questionnaire based on ACRL guidelines for ILC Standards for Education¹. The Chronbach

¹. available online at <http://www.ala.org/acrl/ilcomstan.html>

Alpha for the prepared questionnaire was calculated as 0.87. Data collected was analyzed by use of SPSS16.

Findings

Demographic data for participants is shown in table 1. It is notable that the majority of participants (55%) are male and field of study are more humanities (67.9%).

Table1. Frequency of participants and their field of study

variables	type	Frequency	Percentile
Gender	Female	63	45%
	Male	77	55%
Field of Study	Humanities	95	67.9
	Science	6	4.2
	Mathematical	20	14.3
	Engineering	19	13.6

investigating the relationship between the faculty members' gender and their ILC, t2 statistical method was applied and it was revealed that there was no relationship between the gender and ILC (Table 2).

Table2. Test of significance for the mean of ILC and gender

group	No	Mean	Standard deviation	Homogeneity of variation		df	t	p
				F	p			
Female	63	69.1	25.67	4.954	0.028	138	0.688	0.493
Male	77	71.91	22.707			125.003	0.679	0.498

To investigate the relationship between field of study with participants' ILC, one-way variance analysis was used (Table 3). The results showed that there was no significant relation between the field of study with participants' ILC.

Table3. Test of significance for the difference between field of study with participants' ILC.

Variable	Variance source	Sum of squares	df	ratio F	sig
ILC- Field of study	Inter groups	69.774	46	1.266	0.168
	Intra groups	111.448	93		
	sum	181.221	139		

Table 4 shows the relation among the participants' frequencies and ILC factors including 1. Information needs recognition skill; 2) Skills for combining current knowledge with old ones; 3) Skills for identifying information resources; 4) Information research skills; 5) Information retrieving skills; 6) Information assessing skills; 7) Information organizing skills; 8) Citation skills. As table 4 shows, 43% of teachers fully recognized their information needs, and 30% were barely cognizant of their information needs. For the ability of joining previous experiences with new obtained knowledge the study showed that 54.2% were at a high and very high level of ability to combine their past and new knowledge and 24.3% at a low and very low level of ability. For the skills of identification of information resources, 42% had very high and high skill and 30% very low and low skill. For information search strategies, 38.6% had very high and high skills and 38.6% very low and low skills. For information retrieving, 34% possessed very high and high and 37% very low and low skills. For information assessing abilities, 38.55% had very high and high level of skill, while 37.4% in very low and low level of skill. For information organizing, 30.2% at very high and high level of ability and 30.3% at very low an low level. For information citation skills, 40% had a very high and high level skill and 39% at very low and low level of skill. Finally based on a total evaluation according to all aspects of IL, 46% were at a very high and high level of skill and 21.55% at an average level and 30.18% at a very low and low level of skill.

Based on a Kolmogrov –Smirnov test, distribution of IL scores among all faculty members in the study was normal (M=140, P=0.000) (Table 5).

Table4. Distribution of faculty members' frequencies and information literacy skills

		frequency	%
Information need recognition skill	Very low	20	9
	low	15	21
	Medium	35	24
	High	36	25
	Very high	30	18
	Total	136	97
	Mean of total	3.28	
Skill for combining current knowledge with old ones	Very low	20	14.3
	low	14	10
	Medium	30	21.4
	High	52	37.1
	Very high	24	17.1
	Total	140	100
	Mean of total	3.33	
Skill for identifying information resources	Very low	19	14
	low	22	16
	Medium	40	28
	High	38	27
	Very high	21	15
	Total	140	100
	Mean of total	3.13	
Information research skill	Very low	27	19.3
	low	27	19.3
	Medium	32	22.9
	High	22	15.7
	Very high	32	22.9
	Total	140	100
	Mean of total	3.04	
Information retrieving skill	Very low	26	19
	low	25	18
	Medium	36	26
	High	32	22
	Very high	17	12
	Total	136	97
	Mean of total	2.89	

Information assessing skill	Very low	24	17
	low	28	20.4
	Medium	33	23
	High	36	25.55
	Very high	18	13
	Total	139	98.95
	Mean of total	2.98	
Information organizing skill	Very low	20	14
	low	35	25
	Medium	25	18
	High	37	26
	Very high	19	14
	Total	136	97
	Mean of total	3.01	
Citation skill	Very low	17	12.5
	low	28	19.6
	Medium	21	15
	High	39	28
	Very high	29	20.7
	Total	134	95.35
	Mean of total	3.26	
Total	Very low	19	13.18
	low	22	17
	Medium	31	21.55
	High	35	25
	Very high	30	21
	Total	137	97.73
	Mean of total	3.23	

Conclusion

The study showed that faculty members ability of combining current knowledge with old ones was almost at a high level (mean=3.33) and then faculty members ability of recognizing their information need was at a high level (mean=3.28) and therefore they were well above the average. This finding was in same context with Sharma' study (2010). This phase of information literacy is essential for faculty members just because it is an entrance gate for being involved in research, education and teaching processes in an effective manner.

Overall, the study assessed the faculty members' ILC above the average (mean=3.23) which is in agreement with moghadas zade (2005), Azade pilerod (2008), kikha et al (2009) Sharma (2010) and not in agreement with Islam (2010), and ozdemir (2009) studies.

While it was revealed that the participants were above the average level of IL, but clearly the study sends the message to the university authorities that they must take more effective actions to improve the current level to an optimum status. That the 76.7% of participants voted for more educational IL courses proves conclusively that the average level of IL is not a good status in an academic environment.

More collaboration of librarians at the department of Library and Information Sciences with students and other faculty departments is recommended as a solution for improvement ILC of students and teachers.

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