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ORIGINAL PAPER

The Amount of Media and Information Literacy Among Isfahan University of Medical Sciences' Students Using Iranian Media and Information Literacy Questionnaire (IMILQ)

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ABSTRACT

Introduction: Media and Information literacy (MIL) enables people to interpret and make informed judgments as users of information and media, as well as to become skillful creators and producers of information and media messages in their own right. The purpose of this research was to determine the amount of Media and Information Literacy among Isfahan University of Medical Sciences' students using Iranian Media and Information Literacy Questionnaire (IMILQ). **Methods:** This is an applied analytical survey research in which the data were collected by a researcher made questionnaire, provided based on specialists' viewpoints and valid scientific works. Its validity and reliability were confirmed by Library and Information Sciences specialists and Cronbach's alpha (r=0.89) respectively. Statistical population consisted of all students in Isfahan University of Medical Sciences (6000 cases) and the samples were 361. Sampling method was random stratified sampling. Data were analyzed by descriptive and inferential statistics. **Results:** The findings showed that the mean level of Media and Information Literacy among Isfahan University of Medical Sciences' students was 3.34±0.444 (higher than average). The highest mean was promotion of scientific degree with 3.84±0.975 and the lowest mean was difficulties in starting research with 2.50±1.08. There was significant difference between educational degree, college type and family's income and amount of Media and Information Literacy. **Conclusion:** The results showed that the students didn't have enough skills in starting the research, defining the research subject as well as confining the research subject. In general, all students and education practitioners should pay special attention to factors affecting in improving Media and Information Literacy as a main capability in using printed and electronic media.

Key words: Iranian Media and Information Literacy Questionnaire (IMILQ), Students, Isfahan University of Medical Sciences, Media and Information Literacy (MIL)

1. INTRODUCTION

New facilities have been generated in different dimensions for society development through the spreading of new information and communication technologies. Using their potentials need a new series of competencies [skills, knowledge and perception] (1). UNESCO called the general manager for more backing of Media and Information Literacy in 34th session of UNESCO general conference, in order to give chance to the users judging the media and information resources consciously and to expand civil association in media (2). UNESCO has confirmed information literacy as one of the human's fundamental rights, necessary for national development, economic and civic welfare and educational standards. The stress of information literacy is on the importance of access, evaluation and use of information. All kind of information and contents have been contained in information literacy. But, the media literacy stresses on the ability of comprehending, evaluation and using of media. So, UNESCO has considered media literacy and information literacy as Media and Information Literacy for the process of indexes expansion of these two literacy (3). Media and information literacy is the composite of knowledge, perceptions, skills and experiences needed for accessing, analyzing, evaluating, using, producing and communicating to information and science creatively, lawfully, and morally, stressing on human rights. The people having MIL can use different kinds of media, resources, and information channels in their private, professional and common lives. They know to what kinds of information they need, when they need to it and also know why, where and how they can access to it. They perceive by whom and why it has been produced. They perceive the role, responsibility and performance of media and information provides too. They are able to analyze and rate the information, messages, beliefs and values in the media and any other information providers (4). According to UNESCO curriculum, MIL as a capability causes the citizens to interact with media and other information providers effectively. It also causes they will be able to expand critical thinking and lifelong learning skills for social life and to be changed to an active citizens (2). UNESCO believes that MIL has an important role in creating and expanding democratic culture and an active civil society (1). The MIL skills are not inherent. They need to be educated in a systematic and mass method in the classes, libraries, and any places done research. It's a task done as better as possible

by librarians. So, the students of universities perceive that the librarians as the information service specialists are able to make them to skilled information managers. It means that the role of libraries must be redefined and library professionals must promote users' education and MIL skills intensely (5).

So, with regard to UNESCO's particular attention to the developing countries, and considering Islamic Republic of Iran particularities, we decided to survey the degree of MIL among the students of Isfahan University of Medical Sciences, in order to survey their MIL degree, furthermore to notify their weaknesses and strengths. The following secondary goals have been propounded to attain the goal of this research:

- Defining the IUMS students mean and standard deviation of MIL
- Defining the IUMS students mean and SD of MIL base on dimension
- Defining a significance discrepancy between demographic characters and MIL mean among the students of IUMS

2. METHOD

The method is analytic-descriptive and is an applied research. The data collection tool is questionnaire which is provided base on authentic scientific text as UNESCO (1), Whitworth et al (6), Whitworth (7), Buckingham (8), Livingstone (9), Mittermeyer et al (10), Moody and Williamson (11), The Michael Cohen Group (12), and the researcher needs. The validity was confirmed by the library and information science professionals. The measuring tool reliability was 89% with Using Cronbach's alpha. The Statistical population was IUMS students. The sample volume were 361 persons with using Krejcie's and Morgan's table. A random categorized method of sampling was considered and each college was considered as a category. The number of sample was measured proportion to the students of each college. There have been 3 dimensions in the questionnaire: the first dimension is access (questions 1-11), the second one is evaluation (questions 12-27) and the third dimension is use (questions 28-41). Data collection method was personal and it has been done at end of 2012. The questionnaire has been arranged base on five choices Likert scale. The grades arranged as follow: the high grade: 5, the high grade: 4, the middle grade: 3, the low grade: 2 and the lowest grade: 1. Descriptive statistics (number, percent, mean and SD) and inferential statistics (T.test, ANOVA, Tukey) was used for analyzing the findings. The SPSS 16 software has been used too (13).

3. RESULTS

This research has been done with the aim of defining the MIL degree of IUMS students. Iranian questionnaire of MIL has been used. Finding showed that 56/2% of students were females and 43/8% of them were males. The highest students' family income has been more than 900 thousands Tomans or 300 Dollars (36/3%). The lowest one has been less than 100 thousands Tomans or 33 Dollars (1.9%).most of the students had BSc degree (57/9%) and the least ones had PhD (1.7%).

The finding related to MIL mean among IUMS students, by using Iranian questionnaire of MIL showed that the students MIL mean is 3/34±0/444 which is more than the mean and is comparatively desirable. Besides, the findings showed that the most means were related to the promotion of scientific degree (3/84±0/975), Regarding Trusteeship in quoted content ((98/0±82/3, learning new subjects (95/0±80/3) and promoting others' scientific production (00/1±75/3). The least mean were related to being difficult to start the research (2/50±1/08), being difficult to define the research subject (2/72±1/03), being difficult to confine the research subject (00/1±85/2) and being difficult to define the credit of a website (2/86±1/096) (Table1).

The findings related to MIL mean of dimension level among the IUMS students showed that the mean of use dimension level (608/0±63/3) has been more than other dimensions, namely access (710/0±90/2) and evaluation (585/0±39/3). Access is the lowest dimension (Table2).

Findings related to the MIL mean difference among IUMS students base on gender showed that the significant level (102/0) has been more than 05/0=α, so, the MIL mean dif-

Row	Option / Indicator	Mean and SD
1	Bing difficult to start the research	2/50±1/08
2	Being difficult to define a subject for the research	2/72±1/03
3	Being difficult to confine the research subject	2/85±1/00
4	Being difficult to define search keywords	3/14±1/09
5	Being difficult to obtain article from the databases existing in the library website (as EBSCO, Elsevier, ProQuest…)	3/07±1/09
6	Being difficult to define the credit of a website	2/86±1/09
7	Being difficult to know information resources is in which part of the university	3/10±1/04
8	Being difficult to find the updated resources	2/91±1/04
9	Being difficult to arrange the results of search base on the relation with the research need	2/93±1/03
10	Being difficult to use Bullean operators (AND, OR, NOT) in the search	2/90±1/18
11	Being difficult to identifying thematic areas of media	2/94±1/00
12	Considering the writer's reputation	3/42±1/09
13	Considering the media publisher or provider reputation	3/33±1/04
14	Considering the date of publishing and it's updating	3/72±0/99
15	Considering the organization supervising the dissemination of the media and the rules pertaining to it	3/22±1/08
16	Considering the references of the media	3/33±1/03
17	Considering that the media comprising different points of view or particular sight to the subjects of itself	3/43±0/99
18	Considering the language and other tools used for transferring concepts in the media	3/56±0/99
19	Considering the addressees and target group of media	3/44±0/98
20	Considering the presented image of a social group or a particular subject in the media	3/28±1/04
21	Considering why some presented images of some media seems more real than others	3/31±0/99
22	Using others' assistance (librarians, classmates, friends, family, professors and professionals) for evaluating the relevant media	3/40±1/02
23	Surveying the information of other websites while surveying a new website	3/29±1/00
24	Comparison of other media data if there are differences among the presented information in media	3/34±0/98
25	Taking note and summarizing while finding data	3/34±1/09
26	Media pervious use or consciousness	3/31±0/98
27	Considering the degree of significant and necessary information, pictures, diagrams, tables, used in the media	3/54±0/95
28	Passing the course and completing the writing of the article	3/74±0/88
29	Considering the length and structure of the article and the number of the citations	3/68±0/88
30	Doing a comprehensive survey about the research subject	3/69±0/92
31	Improving the writing, research and analytic skills	3/63±0/95
32	Learning new subjects	3/80±0/95
33	Impressing the parents or professors by getting high grade	3/33±1/15
34	Promoting the scientific degree	3/84±0/97
35	Effort to make more creativity and initiation in the research	3/67±0/99
36	Effort to apply the research results in private and social life	3/55±1/07
37	Regarding Trusteeship in quoted content	3/82±0/98
38	promoting others' scientific production	3/75±1/00
39	Making data available for others via different methods (printed or electronic)	3/42±1/00
40	Not bothered due to others' criticism of my scientific work	3/39±1/00
41	Writing the content in a way that will lead to new knowledge	3/62±0/99

Table 1. *IUMS students MIL SD and mean in 2012*

Row	Dimension ~~Indicator~~	Mean and SD
1	use	3/63±0/608
2	access	2/90±0/710
3	evaluation	3/39±0/585

Table 2. *MIL mean and SD, depends on dimensions*

ference base on gender is not significant. Findings related to the MIL mean difference among IUMS students base on age showed that the significant level (732/0) has been more than 05/0=α, so the MIL mean difference base on age is not significant.

Findings related to the MIL mean difference base on university degree showed that the significant level 000/0)) has been less than 05/0=α, so, the MIL mean difference base on degree is significant. Tukey test showed that the mean difference for these three degree namely BSC, MS and PhD is significant.

Findings related to MIL mean difference base on department, showed that the significant level (000/0) have been less than 05/0=α, so that MIL mean difference base on department is significant. The continuation Tukey test showed that the mean difference between the dentistry department whit other departments is significant also.

Findings related to MIL mean difference base on the family's income level showed that the significant level ((009/0 has been less than 05/0=α MIL difference among the students base on the family's income is significant. The continuation Tukey test showed that the mean difference between the income 100-300 thousands Tomans or 33-100 Dollars with more than 900 thousands Tomans or 300 Dollars is significant.

4. CONCLUSIONS

MIL is relatively a new concept, presented by UNESCO in 2007 and has not been researched in Iran up to now. It has been discussed more about education and it's necessary in abroad. What has been done in this research, is based on of usage of UNESCO guidance and the expert professionals of all over the world. The validity and reliability of the tool have been confirmed and has considered the UNESCO proposal frame, also the native affairs in Iran. But the research is limited because there have not been resources, connected to the subject, to discuss. But we can conclude that the necessity of teaching this concepts is confirmed by some researchers as Whitworth et al (6), Withworth (7), Lee (14), Singh (5), Madder (15), Begum (16), Finquelievic et al (17),Wilson (2), Saleh (18). So, the researchers have used the researches of media literacy domain and information literacy separately not as a single concept (MIL). The aim of this research is to define the IUMS student's MIL degree, by using an Iranian Questionnaire of MIL. Findings showed that more than half of the students were females. The most family's income has been has higher than 900 thousands Tomans or 300 Dollars and the lowest ones has been less than 100 thousands Tomans or 33 Dollars. Most of the students have BSC degree and the least ones have PhD degree.

Findings showed that MIL mean among IUMS students by using Iranian questionnaire MIL has been more than the middle level and relatively desirable. Besides, the highest means are as follow in order: promoting the scientific degree, regarding Trusteeship in quoted content and learning new subjects. The lowest ones are as follow in order: having difficulty to start the research, having difficulty to define a subject for the research and having difficulty to confine the research subject.

The research of AlShon for assessments the MIL level of the blind and visually students of Riyadh University showed that students had most problem in evaluating reliability and credibility of resources. They also had most attention to updating, author cerdentiols and cites of resources (19). The researches of Tayyeb Nia (20), Pandpazir and Cheshmeh-Sohrabi (21), Mohammadi, Shakeri, and Akbaridarian (22), Borjian and Khosravi (23), also showed that the Information Literacy level has more than the middle. But other researches as Bakhtiyar-Zadeh (24), Saifouri and Ghaffari (25), Boruff and Thomas (26) have resulted that Information Literacy level is lower than the middle level. On the other hand, the researches of Hajiheydari (27), Keshani (28), and Nasiri (29), showed that the Media Literacy level has been relatively desirable in their statistical population. But Piscina, Basterretxea, and Jiménez (30) have concluded in their research that Media Literacy mean has not been desirable and has considered the necessity of teaching it.

Findings related to MIL mean of dimension level, among the IUMS students showed that the mean of use dimension has been more than access and evaluation dimensions. The least one is access dimension. It seems that this university students has most attention to promoting their scientific degree, being trustworthy at quoting others' matters, learning new subjects, and promoting others' scientific production also, they effort to Passing the course, completing the writing of the article and Doing a comprehensive survey about the research subject.

Findings connected to MIL mean difference among the IUMS students on the basis on gender is not significant. Findings of Mohammadi, Shakeri, and Akbaridarian (22), also correspond to the present research.

Findings connected to MIL mean difference among the IUMS students base on age showed that the mean of MIL degree base on age is not significant. Findings of Mohammadi, Shakeri, and Akbaridarian (22), also correspond to the present research.

Findings of the MIL mean difference base on degree showed that MIL mean on the basis of degree is significant. It, in its totality, is significant in BSC, MS and PhD degrees. In Ghasemi's research (31) the students having higher degrees, have had higher Information Literacy but in the research of Mohammadi, Shakeri, and Akbaridarian (22), depends on degree, Information Literacy difference has not been significant.

Findings connected to MIL mean difference base on department showed that the MIL mean among the students base on department is significant. So, the mean difference between dentistry department with other departments is significant. The reason of this difference, or why the MIL level of this department is higher, is that this department has more students who are postgraduate. Besides the present research showed that IUMS students having higher degree have had higher MIL.

Findings connected to MIL mean difference base on the family's income showed that MIL mean among the students base on the family's income is significant. So the mean differ-

ence between the income 100-300 thousands Tomans or 33-100 Dollars with more than 900 thousands Tomans or 300 Dollars is significant. It seems that the students, whose families have higher income, will have more MIL degree.

Although, the results of this research show a relatively desirable MIL degree, but it has been done in one university. It is necessary to do other researches in other universities to define their state and decide about the MIL degree domain more easily.

At the end this study found that the students in dealing with information had most attention to promotion their scientific degree and skills, and considering scientific ethic. In the other hand they have most problems in the preliminary stage of research. Education development center (EDC) and medical library and information science department of Isfahan University of Medical Sciences should arrange workshops to acquaint the students with MIL components practically and theoretically. They can also with performing research classes with experienced teachers and using current information services (like Alerts, RSS…) meet students' weakness in preliminary stage of research.

CONFLICT OF INTEREST: NONE DECLARED.

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