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Comparing Barriers to Using Learning Resources among Iranian University Students and Instructors

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Abstract

The current research aimed to study barriers of using learning resources among Iranian university students and instructors. Participants included fifty university instructors (38 males,12 females) and 300 students 156 males, 144 females) who were randomly selected from university students and instructors of Kermanshah Azad University.Two researcher-made questionnaires were used. Results showed there was a significant difference between learning resources students and instructors used and the printed resources had the highest frequency of use among the sample, and the audio-visual tools had the lowest frequency of use.
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1. Introduction

Entrance to the era of modern civilization and Information in the second half of the 20th century has affected human's social relations in all aspects of life. Undoubtedly in order to travel with this movement, all communities require fundamental changes in developing skills of people who live in this period of history. With advent of modern technologies such as the Internet, multimedia and distant communications, traditional approaches toward teaching and learning have vastly improved. Innovations in learning and information retrieval have influenced all aspects of life and the academic centers and universities are not an exception to this change. With fast development of sciences and skills, publication of scientific resources is growing and everyday we witness the production of information in printed and electronic forms. Scientific, cultural, economical and political development of every country depends on suitable use of the most recent sources of information. Increase in the volume of publication and development of fields of science are among the major barriers to information access for many societies.

Huge amount of information, growing number of users, distance, disciplines of study, reproduction of scientific sources, specific fields of interest, reserved rights of production, language and political borders are major factors that complicate the process of information accessing and retrieval. In order to be able to access and locate the most

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suitable and useful information, the influence of these factors should be minimized and the effective access to information should be maximized through improving certain skills (Davarpanah, 2002). Accessing accurate information and statistics which is considered the backbone of planning is crucially important especially in the current condition of the society where reconstructing, developing and implementing cultural, social, and economical plans have received great attention from administrations and governments.

At present universities are the major center of collection, analysis and production of scientific information. Consequently, equipping universities to any technology tools that transfer information seems essential (Nili Ahmadabadi, 2001). This seems to be very important in different countries with different cultures and various level of investment in developing IT infrastructures for the society in general and for higher education in particular. This study thus focused on finding the way university students and instructors access and use information in Iran. Furthermore, the factors that influence patterns of using learning resources by university students and instructors have been taken into account. The study tries to find answers to the following questions:
1. What are the main learning resources university students and instructors use in Iran?
2. What are the determining factors that influence the use of learning resources by university students and instructors in Iran?
3. Is there any relationship between students' age and the use of learning resources?

1.1.Backgraound
Bashiri (2004) investigated information needs of 218 researchers working in 32 research centers for the ministry of agriculture in Iran. The result of their study revealed that 18.8% of these researchers used books, 18.5% used periodicals, 18.3% used databases, and 14.1% of them used the Internet. Sixty one percent of the information they needed was in English and the rest was in Persian. From the references, abstracts with 38.8% and articles with 36% had the highest rate of users.

In another study Noorafrouz (2005) investigated the information needs of students of accountancy and management in one university in Iran. Data analysis revealed that among sources of information books, theses, scientific journals, and research reports had the highest rates of users. Moreover, the use of important sources such as abstracts and indexed sources was limited. The use of the Internet among the participants was reported to be quite satisfactory.

In another study, Shoham (1998) studied researchers' patterns of information needs and access to learning resources. The findings showed that with the changes in information technology, patterns of information gathering have not been changed hugely. Meaning that scientific journals with 92% were the most important tool of gathering information and indexing were ranked second with 85.4% of users.

Oakleaf (2000) investigated information accessing behavior of humanities scientists in Kent State University. The result of the study revealed that there was a significant relationship between participants' fields of study, rank, experience of teaching, age, and gender and the way they searched the information. Moreover, there was a relationship between the scientists' attitude towards research methods and electronic resources.

2. Methods
2.1. Participants
Participants of this study were 50 university instructors and 300 students of one metropolitan city in Iran, Kermanshah. The sample was selected according to simple random sampling. Kermanshah's Universities had 250 instructors of 20 majors. Fifty instructors (38 men and 12 women) were selected from the population. There were 5000 students in 20 undergraduate majors in the universities of Kermanshah. Three hundred students (156 women and 144 men) were also selected according to random sampling.

2.2. Instruments
Two researcher-made questionnaires were used in this study: instructors' questionnaire and students' questionnaire. Each questionnaire had two sections. The first part of the questionnaire was prepared to gather participants' personal information such as age, gender, and educational status. The second part was related to participants' patterns of use of learning resources which had 30 items.

In order to estimate the content and face validity of the questionnaire experts' ideas were asked. The first version of the questionnaire was distributed among university professors of two universities in Iran and after some revisions the final version of the questionnaire was prepared. In order to calculate the reliability of the questionnaire, the internal consistency method was used and the Cronbach's alpha was found to be 0.71.

3. Results

In order to find out the answer to research question number 1, one way analysis of variance (ANOVA) was used. The results revealed that with $F_{(3, 346)}=8.54$ and $p=21.85$, the means of use of learning resources by the respondents were significantly different. The Duncan Test revealed that the following sources are most frequently used by instructors and students: printed resources, electronic resources, face to face, and audio-visual aids. It indicates that in spite of the fact that electronic resources appeared to be used widely by academicians, the printed resources are still most frequently used by Iranian students and instructors (table 1).

Table 1.Duncan test for ranking learning resources

Learning resources		Subset for alpha=0.05			
	n	1	2	3	4
Printed	162				2.71
Electronic	132			2.37	
Face to face	33		1.63		
Audio-visual	23	1.01			

In order to find out the determining factors in using learning resources by instructors and students (question number two), one way analysis of variance (ANOVA) was used. The results revealed that with $F_{(7, 342)}=33.41$ and $p=3.24$, the means of effective learning resources by the respondents were significantly different. The Duncan Test revealed that lack of research facilities was the most influential and confidentiality of information was the least influential factor (Table 2) in using learning resources among students and instructors of Kermanshah University.

In order to find the relationship with age and using learning resources (question number three) the $\chi2$ technique was used. The result of $\chi2$ showed that with $\chi2 =17.26$, (df=3, p<0.05) there is a relationship between age and using learning resources among students and instructors of Kermanshah universities, meaning that as age increase the use of learning resources decreases (table 3).

Table 2. Duncan test for ranking factors influencing use of learning resources

Factors		Subset for alpha=0.05							
	n	1	2	3	4	5	6	7	8
Lack of research facilities	86								2.74
Lack of information resources	73							2.51	
Financial reasons	66						2.16		
Time	58					2.15			
Lack of familiarity with modern technologies	25				1.99				
Lack of familiarity with recent information	17			1.57					
Lack of foreign language proficiency	14		1.56						
Information confidentiality	11	1.53							

Table 3. χ2 for age and use of different types of learning resources

Learning resources	Printed		Electronic		Audio-visual		Face to face	
Age	Expected	observed	Expected	Observed	Expected	Observed	Expected	Observed
Below 24	105.04	96	6.06	4	50.1	60	2.9	5
Over 24	79.5	94	11.44	8	38.5	24	5.6	9

4. Discussion

The aim of this study was investigating the patterns of using learning resources among university students and instructors in Iran. The findings revealed that there is a significant difference between the type of learning resources instructors and students use in a way that the printed resources were most frequently used and audio-visual aids were the least frequently used resources by the participants. This is in line with other studies done in Iran (University of Tehran, 1975; Iran document center, 1981; Asadi Gorgani, 1987; Khoshmansesh, 1993; Makkizadeh, 1997; Bashiri, 2004; Noorafrooz, 2005) and other countries (Lin & Garvey, 1972; Folster, 1989; Watson-Bone, 1994; Shoham, 1998). The finding supports that fact that in spite of the appearance of electronic resources for more than four decades, the printed sources of information are still among the most important and widely used sources of information. The reason may lie in the fact that printed sources of information have unique characteristics that distinguish them from other resources such as easiness, access, price, users' high level of familiarity, and credibility they have created over years.

The findings also revealed that there were different factors affecting the use of different learning resources by university students and instructors. Some of these factors have also been found by other studies (Daneshi, 1976; Iran document center 1981; Afshar Zanjani, 1987; Makkizadeh, 1997; Noorafrooz, 2005). Among these factors access to research facilities was factor number one. It should be noted here that availability of facilities and tools of research is related to financial status of academic centers and educational institutes at micro levels and countries' fiscal status at macro levels of analysis. Implementation of research tools, information technology systems and tools, and using different media of communication needs huge investment from administration's side. This is actually a very important barrier to information access because as information systems' power of information transferring increases expenses of implementing technology tools and consequently information access increases hugely. And unfortunately, countries with poor economy cannot afford many types of these tools.

Another important factor found to be influential in this regard was lack of time. It has been found that lack of time is a major barrier to people's information search and access. This also holds true for those who have high motivation and skill to fulfill their information needs. When a need is aroused for information, users don't spend much time to find that piece of information if the immediate access to information is not provided. Consequently information seeking behavior is not going to be taken shape.
Distance can also be an important factor in some instances. In spite of the fact that the Internet is ubiquitous in many academic and non academic places, we cannot ask students to search everything on the Internet. The reason lies in the fact that using the Internet and taking advantage of its full potentials require skills and familiarity from the users' side. Research shows that there are still many gaps in technology literacy of different groups of users.
Familiarity with foreign languages is another serious problem in information retrieval. Many recent resources are written in foreign languages and many users cannot use them due to low proficiency in those languages.

A part of information is considered classified by many institutions and governments. So this hinders users to access them. New form of information is also another factor that affects use of learning resources. With the rapid development of information technology and computer-mediated communication, various types and formats of information production and retrieval are made. As people are very busy and they do not have much, they cannot familiarize themselves with these newly-made forms of information and this also prevents them from accessing the recent information.

The findings of this study also revealed a relationship between age and using different types of learning resources. This is in agreement with Oakleaf's (2000) findings. The findings indicated that users below the age of 24 used learning resources more than those users who were above 24. It can be concluded that with age, interest and motivation to learn and search for information decreases.

4.1. Implications and applications

Research findings show that using learning resources influences instruction particularly in higher education. This influence includes access to recent and useful information, access to huge amount of information in specific topics of interest, fast information retrieval, a big help to university instructors in organizing, saving, and expanding information, and improving students' learning. In addition to these influences the following applications can be mentioned:

- The current research showed that university instructors and students use the printed sources of information most frequently. The culture of study, lack of research facilities, high prices of scientific journals, high expense of submission in scientific conferences especially for university students, lack of any organization to familiarize users with technology tools and educational software, limited number of workshops to familiarize students with recent technology are among the reasons that contribute to students' and instructors' use of printed sources of information. Policy makers and administrators should invest on developing infrastructures of technology and also provide students and instructors with facilities to be able to use information technology tools, to scientific conferences, to attend educational workshops, and to develop the culture of using modern tools of technology for academic works.
- The findings of this study indicated that there were various factors that influence patterns of using different resources of information. Research facilities, time, expenses and interest are among the major factors. University administrations should take these factors into consideration and solve them in a way that university instructors and students can access the recent information to empower themselves scientifically and information-wise.
- As age was found to be a determining factor, incentive packages are required to encourage older users to seek and access information for academic and professional reasons.

4.2. Limitation of the study

In this study learning resources use was limited to academic works done in universities, that is, teaching and researching.

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