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Instruction of Citation Management Tools by Academic Librarians: The Need for Training the Trainers

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Abstract

The present paper is the result of a research which aimed to review the current level of support and training provided for the reference management software (also known as citation management tools) by academic libraries. The data was gathered on the basis of a survey of Iranian universities' websites. The results revealed that in about 50 percent of Iranian universities, there is no information about reference management software at their websites at all. In less than half of the remaining 39 universities, central library is responsible for introducing and training of citations and reference management software. Research deputies and faculty scholarly associations have been other organizers of reference management software training. Furthermore, the results show that more than 90 percent of universities perform their training in face to face format only. EndNote is the only citation management software supported approximately by all universities. Teaching other reference management tools, such as Mendeley or Zotero, has been very limited. Central libraries of 11 universities have regular training programs for EndNote. Authors suggest that librarians themselves get instruction on using citation management tools to be able to teach library users. Also, there is a need for providing online tutorials on reference management software.

Keywords

Citation management software; Reference management software; Bibliographic management software; Citation tools; Information literacy instruction; Academic libraries

Introduction

Observing ethical issues in the use of information, paying attention to copyright issues, and avoiding plagiarism are important aspects of information literacy. In fifth part of Information Literacy Competency Standards for Higher Education developed by Association of College & Research Libraries (ACRL), one of the expected skills for an information literate person is mentioned as follows, "Selects an appropriate documentation style and uses it consistently to cite sources" (ACRL 2000, Libraries, 2000). Citation management is one of the difficulties of writing scholarly and research papers especially when writing literature review, in which many sources are studied and used. Bibliographic information of the cited sources should have been entered correctly so the reader can find them easily if necessary.

Manual recording of bibliographic information and then copying information of sources used in research process can lead to errors in content organization of resources that would hinder retrieval of citations. Moreover, citation has become more complicated because of the different forms of information resources. While in the past books and articles were the only forms of publishing scholarly information, today's information is presented in various forms; from the websites and blogs to discussion group messages, wikis, photos, video clips, podcasts, etc. Reference management software help authors manage too many citations and keep citations consistent. It is worth to note that there are different names in the literature for this kind of software including: Bibliographic management software/tools, citation management software/tools. For the ease of reading this paper, Reference management software (here after RMS) has been used to refer to those software/tools. Research shows that the use of this software can reduce human errors (Smith and Baker, 2007). They also increase scholarly productions by facilitating citations.

One of the criteria for evaluating scholarly publications is to observe citation principles and citation accuracy. Journals and conferences do not follow the same citation standards and to publish an article a researcher should follow citation style accepted by that specific journal or conference. The possibility of producing different outputs in accordance with the standards of different magazines is one of the capabilities of the reference citation software.

Citation software also helps researchers and writers in managing information. We may find resources related to the subject of our research on the web and databases every day. Citation management software enables us to create a database of all the resources, store their full text and

bibliographic information in it, and retrieve them at necessary times. Machine entering of in-text citations is another characteristic of such software. When installing citation management software, their related add-on is created in word-processing software. These way citations can be invoked in the machine from the database of citation software in use simultaneous with writing articles. Of course, Microsoft Word software also has the ability of Cite while you write (CWYW) but citation management software capabilities are far more than these in a way that they have become a tool for personal information management and scholarly social networking.

The advent of the first citation software dates back to the 1980's (Gilmour & Cobus-Kuo, 2011). According to Wikipedia (2016), there are more than 30 different reference management softwares (RMS). The most popular softwares are EndNote, RefWorks, CiteULike, Mendeley, ProCite, and Zotero. Pajoohyar is a citation management software which has been developed in Iran in response to incompatibility of other software with Persian language. Reference management softwares have different features and capabilities. Some of RMS, such as CiteULike, Zotero and Mendeley have Web 2.0 capabilities and have been created with the aim of sharing citations between researchers and are mainly used online. Zotero sits on a web browser. Mendeley has both a web interface and a desktop client. Some older citation management softwares like EndNote also have the ability to be installed on a computer. Some of these are commercial software such as EndNote and some, like Zotero, are open source and free.

The number of citation management software and their complexity are increasing. While in the past, information must have been entered manually, today data entry is perfectly done by machine. Recently applications of some of reference software for mobile phones and tablets have been created to provide the ease of having references at hand and on move.

Literature review

Some scholarly articles, mostly written by librarians, have introduced and compared citation management software, reviewing strengths and weaknesses of them. In fact, according to Melles and Unsworth, a significant proportion of the RMS literature is devoted to the functionality of RMS and comparisons of RMS products. In a more recent research, Van Ullen and Kessler (2016) have reviewed citation apps for mobile devices. They report a level of error in citation outputs of those apps and recommend scholars to check and control citations generated by apps. But the literature has paid less attention to the outcomes of reference management instruction in academic libraries (Melles & Unsworth, 2015).

Teaching citation principles and methods has always been part of the information literacy education in academic libraries. During the recent decade RMS training has also been added to information literacy education programs. Reviewing websites of academic libraries in developed countries show that they offer citations and citation management software training in various

ways, such as workshops, written guides, online tutorials, and even in the form of games.

East has reviewed the websites of 39 academic libraries in Australia to explore their EndNote training. The results showed that 53 percent of libraries have included EndNote training resources on their websites (East, 2001). In a similar research, McMinn (2011) has investigated 111 American university libraries' websites for citation management software instruction. The results show that 72 percent of the libraries have provided instructional materials for RefWorks and EndNote training. Harrison (2005) describes how the Manchester Metropolitan University Library delivers Endnote training to its academic staff and students through hands-on workshops/classes and online tutorials. Duong (2010) reports on promoting Zotero to students and faculty members as an outreach activity. MacMillan (2012) reports on introducing Mendeley to students and faculty members. He believes that with sharing and resource discovery capabilities of Mendeley, its instruction extends the librarian's role from bibliographic instruction into finding resources in new ways. In support of using Mendeley by researchers, MacMillan then argues that although some academics may be slow to embrace social networking, using RMS such as Zotero or Mendeley may enhance their scholarly impact and their altmetrics ranking (MacMillan, 2012).

Melles and Unsworth (2015) examined the reference management practices of humanities and social science postgraduate students and academics. Their findings showed that the reference management practices are individual and personal and do not always involve the use of RMS. Sarrafzadeh and Hazeri (2014) investigated the familiarity and use of reference management software by library and information science (LIS) faculties in Iran. Their results showed that considerable portion of LIS faculties do not use RMS.

Rempel and Mellinger (2015) explored how researchers choose a bibliographic management tool and what makes them to continue using them. Results showed that ease of use was the most important factor in choosing a bibliographic management tools. They argue that librarians may have less influence over researcher's decisions to continue using bibliographic management tools.

Citation management software education is presented in a limited form in Iran by Iranian Research Institute for Science and Information Technology, Computer Research Center of Islamic Sciences, Library and Information Science Association and private organizations such as Armook. Universities are the main centers of producing and disseminating knowledge and publications. Students and faculty members would produce more quality works using RMS. But is citation management software training taken seriously in Iranian universities? The current study aimed to answer this question.

Materials and Methods

The research method is descriptive. The list of all public universities, under the management of Iranian Ministry of Science, Research and Technology, was gathered from the website of Islamic world science citation center (ISC). A search was conducted in May 2016 of websites of all 80 Iranian public universities, to locate information relating to the use of most popular RMS at each university. A checklist was developed according to the experience of the authors of the present paper and similar research. After reviewing the checklist by some professionals, the final checklist was used to survey the websites. Data was collected in response to the following questions:

- Is there any kind of training provided by universities for RMS?
- If so, which unit within the university has offered the training?
- Is the training offered free of charge or there is a fee for that? What is the duration of training?
- What is the method of training (face-to-face workshops/classes; online tutorials, etc).

The checklist components and items of this checklist are presented in Tables 1, 2 and 3 in detail. The data obtained from websites was entered into Excel software and then was analyzed in response to above questions.

Findings

Researchers found that from 81 universities, 41 universities did not have any information about citation management software on their websites. Therefore, these 41 university websites were excluded from the study population and the remaining 39 websites were investigated further. Findings have been summarized in following parts.

Part A: The introduction and announcement of citation software training on the website of the university and central library:

Table 1 shows that in 39 universities, citation management software has been presented in various parts of their websites, including university website homepage, central library, and university associations' sites. The most supportive universities in terms of RMS training are University of Tehran, Ferdowsi University of Mashhad, Bahonar University of Kerman, Allameh Tabataba'i University, University of Zanjan, Shahid Chamran University, Shahed University, Yasouj university, Birjand University, Imam Reza International University, Iran University of science and technology, and Petroleum University. These universities hold workshops such as EndNote training workshops regularly. But, the rest of universities do not have a regular schedule for training programs. Workshops are held from time to time and sometimes on the occasion of festivals such as Research Week, Book Week, Student Day, etc.

According to the data of Table 1, in less than half of the universities, the training provider unit is

their central library. Also, more than 90 percent of universities are teaching EndNote for their RMS training. Teaching other software, such as Mendeley (5 cases), Zotero (3 cases), RefWorks (2 cases), and Citavi (1 case), has been very limited.

Part B: Linking to RMS manuals and educational materials; downloading citation software in university websites and holding workshops at universities:

Table 2 indicates that only 8 universities, including University of Tehran, Ferdowsi University of Mashhad, Shahid Bahonar University of Kerman, Allameh Tabataba'i University, Shahed University, Imam Reza International University, and Shahrood Industrial University have links to manuals of citation software on their sites. Most of universities have not added any link for downloading RMS. Moreover, online training of RMS was only provided by University of Tehran and University of Kashan.

Part C: Responsible unit for RMS training, methods of teaching, duration of training

Based on Table 3, among the universities providing RMS workshops, in less than half of the cases (33 percent) Central Library has been responsible for introducing and organizing workshops. In about 38 percent of universities, Research Department has organized workshops. In some universities such as University of Tehran, University of Isfahan, Shahid Bahonar University of Kerman, Alzahra University, University of Mazandaran, Tafresh University, and University of Maragheh, faculty scholarly associations have run citation workshops.

Also according to Table 3, more than 90 percent of universities (36 universities) run their trainings face to face and people participate in these classes for free or for some small fees. University of Tehran and University of Kashan, have offered their training in virtual forms as well. It should be noted that text-based and PowerPoint files have been available to everyone for free on those university websites, but video online tutorials were offered for a fee for students and faculty members. The training was either targeted to the general academic community (19 cases), graduate students (13 cases), faculties (10 cases), or for foreign students.

In more than half of the university websites (53 percent), accessing and finding citation management software was an easy task. It should be explained that easy findings of citation management software in websites means that upon entering the homepage of university or that of central library, announcements or text files of citation management software could be seen. In other words, the user can find it in the website at the first glance. But in other universities, citation software is introduced or taught by colleges, research departments, or scholarly associations and there is no announcement about them on the home page of university websites. As a result, one should search in the website's others various pages and even in the weblogs of various faculties of the university in order to find the related material. Hence it can be said that finding citation software training announcements is more difficult in those websites.

Discussion

As the results show, from the 80 universities in Iran, more than half of them do not provide any training or introduction of citation management software. In the rest of universities EndNote is the most popular RMS. EndNote is known more than other citation management software in Iran. Maybe because it is older than other RMS and it has desktop offline version, too. However, this is not the case for Iran only and in other countries it is the most popular RMS used by scholars. Using EndNote for Persian language has some difficulties as it is not compatible with this language. Therefore, mostly scholars in science and engineering fields use it as their main language for scholarly reading and writing is English. Pajoohyar is a RMS which has been developed by Computer Research Center of Islamic Sciences based on open source and free RMS of Zotero and in accord with Persian language, especially for humanities that use mostly Persian resources. Although the developers of Pajoohyar have regular workshops for training the software in their company, there wasn't any evidence for its presence in universities' websites.

As findings show, the academic libraries of Iran haven't had a strong role in organizing workshops and training courses for RMS. In less than half of the universities, libraries have been responsible for EndNote training and in other cases research departments, scholarly associations, and faculties have managed it. This is despite the fact that in other countries academic libraries have been the responsible unit in teaching RMS in universities (East, 2001). The lack of required skills among academic librarians might be the main obstacle in providing RMS trainings. As was mentioned earlier, there are very limited professional development opportunities for librarians in Iran to skill up their RMS competencies. It might be argued that librarians must have been learnt RMS during their Library and Information program while they were students. But the results of a study show that most LIS faculties in Iran do not use any kind of RMS (Sarrafzadeh & Hazeri, 2014) in order to be able to teach RMS to their students. So, LIS faculty members are also in the need of receiving RMS training.

Except in a few universities where the central library have offered EndNote training regularly, there was no schedule for citation software training in other universities and only occasionally RMS workshops have been organized according to different occasions such as research week or book week. In more than 90 percent of the cases, software training workshops have lasted for 2 to 6 hours. In other cases, written guides have been provided online. Furthermore, there were no multimedia or online tutorials in the reviewed websites for RMS training.

It is worth noting that university website was the only source of data collection in this study; therefore, it is likely that some universities have not reflected their activities and services on RMS training on their websites. There might be universities that are active in citation management software training, but reports of these activities is not reflected in the University's website, so the results of this study are affected by this fact.

Conclusion

As the results show, despite the importance of the citations and citation management software in development of research and publication of scholarly works, it is rarely taught by Iranian academic libraries. This is despite the fact that citation education has been an old tradition in academic libraries. Initially it was known as "Bibliographic Instruction". Today, bibliographic education is very detailed and includes plagiarism and citation management software training. Citation training is prerequisite to citation management software training and must be taught in universities seriously. High amount of plagiarism is alarming in Iran and citation training is essential at least to reduce unintended plagiarism.

Since citation accuracy is very important for publishing scholarly works and is considered one of the most important criteria for evaluation of scholarly papers, lack of awareness of researchers and academics about the principles of citations in Iran can lead to reducing the number of publications of Iranian scholars in international journals.

Regarding the teaching methods, online video tutorials should also be provided to help the people learn the citation management software in their own appropriate time. The physical existence of libraries, especially academic libraries, as repositories of books and other information sources is changing rapidly. As academics find relevant information in online resources, academic libraries are changing to online entities, so a change in user education is essential. This is why libraries offer part of their training online in the form of written and audio-visual formats, in addition to face to face classes and print educational resources, in order to be used by the audience at any time. An important part of academic library websites in developed countries is online training of users that is offered in the form of texts, podcasts, videos and even games. Multimedia tutorials can rarely be found in academic libraries in Iran and existing online tutorials are not beyond text and PowerPoint files.

One reason for librarians' poor support of RMS training could be that they themselves have not received training to be able to teach faculty members and students. Also, librarians traditionally have not been active in conducting research and writing papers and therefore haven't had a need to use RMS.

In order to equip librarians with RMS skills and make them trainers, it is essential to provide them with educational programs. Training librarians can be achieved in two ways: 1. in the form of professional developments courses that can be offered by Iranian Library and Information Science Association or other institutions of professional education. 2. Training Library and Information Science (LIS) students who are potentially future librarians.

Continuing professional development (CPD) opportunities for Library and Information professionals (LIS professionals) are very rare in Iran and apart from workshops and webinars

which are presented occasionally there is no established program for CPD of LIS professionals. Additionally, lack of time and budget inhibits LIS professionals to attend workshops, conferences, etc.

Involvement of librarians in training can enhance their status among their community. For optimal planning of citation and citation management software training, skills needed by students, professors, and researchers should be reviewed. Some research is also needed to measure knowledge and skills of academic librarians in citation management software and their tendency and motivation to learn citation management software. This will provide a foundation for organizing professional development trainings for academic librarians.

References

ACRL (2000). Information literacy competency standards for higher education. Retrieved August 20, 2017, from http://www.ala.org/acrl/standards/informationliteracycompetency

Duong, K. (2010). Rolling out Zotero across campus as a part of a science librarian's outreach efforts. *Science & Technology Libraries*, *29*(4), 315-324.

East, J. W. (2001). Academic libraries and the provision of support for users of personal bibliographic software: a survey of Australian experience with EndNote. *LASIE (Library Automated Systems Information Exchange),* 32, 64-70.

Gilmour, R., & Cobus-Kuo, L. (2011). Reference management software: A comparative analysis of four products. *Issues in Science and Technology Librarianship,* (66), 63-75.

MacMillan, D. (2012). Mendeley: Teaching scholarly communication and collaboration through social networking. *Library Management,* 33(8/9), 561-569.

McMinn, S.H. (2011). Library support of bibliographic management tools: A review. *Reference Services Review*, 39(2), 278-302.

Melles, A., & Unsworth, K. (2015). Examining the reference management practices of humanities and social science postgraduate students and academics. Australian *Academic & Research Libraries*, 46(4), 250-276.

Rempel, H.G., & Mellinger, M. (2015). Bibliographic management tool adoption and use: a qualitative research study using the UTAUT model. *Reference & User Services Quarterly*, 54(4), 43-53.

Sarrafzadeh, M., & Hazeri, A. (2014). The familiarity and use of reference management software by LIS faculties in Iran. *New Library World*, 115(11-12), 558-570.

Smith, C., & Baker, B. (2007). Technology in nursing scholarship: use of citation reference managers. *International Journal of Mental Health Nursing,* 16(3), 156-160.

Van Ullen, M.K., & Kessler, J. (2016). Citation apps for mobile devices. *Reference Services Review*, 44(1), 48-60.

Appendix: Tables

Table 1. The amount of introduction and announcement of citation software training on the website of the university and central library

No.	University	RMS that is trained	Notification of RMS in Central Library	Referring to RMS in University website	No.	University	RMS that is trained	Notification of RMS in Central Library	Referring to RMS in University website
1	U. of Tehran	End Note, Mendeley			21	U. of Birjand	End Note in 3 courses	-, +, -	+
2	Ferdowsi U. of Mashhad	End Note	+	+	22	ShahreKord U.	End Note in 2 courses	-	+
3	Shiraz University	-	-	-	23	Gorgan U. of Agricultural Sci. and Natural Res.	End Note	-	+
4	Shahid Beheshti U.	End Note, Zotero	-+ ,	+ , +	24	Vali Asr U. of Rafsanjan	End Note in 2 courses	+	+
5	U. of Isfahan	Zotero	-	+	25	Hakim Sabzevari U.	End Note	-	+
6	Shahid Bahonar U. of Kerman	End Note in 3 courses	-	+	26	U. of Maragheh	End Note	-	+
7	Razi University	End Note	-	+	27	Tafresh U.	End Note	-	+
8	U. of Kashan	End Note	-	+	28	U. of Hormozgan	End Note	-	+
9	U. of Mazandaran	End Note	-	+	29	Malayer U.	End Note	-	+
10	Kharazmi U.	word	-	+	30	Koramshahr Marine Sci. and Technology U.	End Note	-	+
11	U. of Zanjan	End Note in 2courses, Mendeley	-, +	+ , +	31	U. of Science and Culture	End Note	-	+
12	Alzahra U.	End Note	-	+	32	Imam Reza international U.	End Note,Zotero, Mendeley, Works, Citavi,word	-, +, -	+
13	Allame Tabataba'i U.	End Note, Mendeley	+,+	+ , +	33	Sharif U. of Technology	End Note	+	+
14	Yazd University	End Note	-	-	34	Iran U. of Science and Technology	End Note in 3 courses	-	+
15	Shahid Chamran U. of Ahvaz	End Note	-, +	+ , +	35	Babol Noshirvani U. of Technology	End Note	-	+
16	Shahed U.	End Note, Mendeley	+, -	+ , +	36	Shahrood U. of Technology	End Note	-	+
17	Yasouj U.	End Note	-	+	37	Petroleum U. of Technology	End Note, Ref Works	-	+
18	Azarbaijan Shahid Madani U.	End Note	+	+	38	Kermanshah U. of Technology	End Note	-	+
19	U. of M. Ardabili	End Note in 2 courses	-	+	39	Arak U. of Technology	End Note	-	+
20	Imam Khomeini International U.	End Note	+	+					

Table 2. Linking to a manual and download citation software in university websites and holding workshops at university

No.	University	Training provided are occasionally or regularly	Virtual training	A link for downloading RMS is provided	Technical support is provided	External links to RMS educational materials are provided	No.	University	Training provided are occasionally or regularly	Virtual training	A link for downloading RMS is provided	Technical support is provided	External links to RMS educational materials are provided
1	U. of Tehran	regularly	+	-	-	-, +	21	U. of Birjand	regularly	-	-	-	-
2	Ferdowsi U. of Mashhad	regularly	-	-	-	-	22	ShahreKord U.	occasionally	-	-	-	-
3	Shiraz University	-	-	+	-	-	23	Gorgan U. of Agricultural Sci. and Natural Res.	occasionally	-	-	-	+
4	Shahid Beheshti U.	occasionally	-	-	-	-	24	Vali Asr U. of Rafsanjan	occasionally	-		-	-
5	U. of Isfahan	occasionally	-	-	-	-	25	Hakim Sabzevari U.	occasionally	-	-	-	-
6	Shahid Bahonar U. of Kerman	regularly	-	-	-	+	26	U. of Maragheh	occasionally	-	-	-	-
7	Razi University	occasionally	-	-	-	-	27	Tafresh U.	occasionally	-	-	-	-
8	U. of Kashan	occasionally	+	-	-	-	28	U. of Hormozgan	occasionally	-	-	-	-
9	U. of Mazandaran	occasionally	-	-	-	-	29	Malayer U.	occasionally	-	-	-	-
10	Kharazmi U.	occasionally	-	-	-	-	30	Koramshahr Marine Sci. and Tech.U.	occasionally	-	-	-	-
11	U. of Zanjan	regularly	-	-	-	-	31	U. of Science and Culture	occasionally	-	-	-	-
12	Alzahra U.	occasionally	-	-	-	-	32	Imam Reza international U.	regularly	-	+	+	+
13	Allame Tabataba'i U.	regularly	-	-	-	+	33	Sharif U. of Technology	regularly	-	-	-	-
14	Yazd University	-	-	+	-	-	34	Iran U. of Science and Technology	regularly	-	-	-	-
15	Shahid Chamran U. of Ahvaz	regularly	-	-	-	-	35	Babol Noshirvani U. of Technology	occasionally	-	-	-	-
16	Shahed U.	regularly	-	-	-	+, -	36	Shahrood U. of	occasionally	-	-	-	+

								Technology					
17	Yasouj U.	regularly	-	-	-	-	37	Petroleum U. of Technology	occasionally	-	-	-	-
18	Azarbaijan Shahid Madani U.	occasionally	-	-	-	-	38	Kermansha h U. of Technology	occasionally	-	-	-	-
19	U. of Mohaghe gh Ardabili	occasionally	-	-	-	-	39	Arak U. of Technology	occasionally	-	-	-	-
20	Imam Khomein i Internatio nal U.	occasionally	-	-	-	-							

Table 3. Responsible groups for organizing the workshops, method and duration of training

No.	University	It is easy to find citation software in website	Duration of Training (Hour)	Is training Free?	Method of training	Version of Software	Training organizer
1	U. of Tehran	+	4	- , +	face to face, virtual	End Note 16	central library, scientific association
2	Ferdowsi U. of Mashhad	+	2	+	face to face	End Note 5	central library
3	Shiraz University	-	-	-	-	End Note 5, 7, 15, 17	-
4	Shahid Beheshti U.	+	4, 2	+	face to face	-	deputy of research, central library
5	U. of Isfahan	-	4	-	face to face	-	center for entrepreneurship
6	Shahid Bahonar U. of Kerman	+	2	-	face to face	End Note 7	central library, faculty of literature
7	Razi University	-	-	-	face to face	-	international academic collaboration office
8	U. of Kashan	+	-	-	virtual	End Note7	deputy of research, Iranian Research Institute for Information Science and Technology
9	U. of Mazandaran	-	-	-	face to face	-	faculty of science
10	Kharazmi U.	-	2	-	face to face	-	faculty of psychology
11	U. of Zanjan	+	4, 6	-	face to face	End Note 7	central library, deputy of research , biology group
12	Alzahra U.	-	4	-	face to face	-	scientific association of linguistic students
13	Allame Tabataba'i U.	+	4/30, 2	+	face to face	-	central library
14	Yazd University	-	-	-	-	End Note 7	-
15	Shahid Chamran U. of Ahvaz	+	2, 8	-	face to face	-	central library, talent office
16	Shahed U.	+	4	-	face to face	End Note 6	central library, deputy of research
17	Yasouj U.	-	8	-	face to face	-	deputy of research

18	Azarbaijan Shahid Madani U.	+	-	-	face to face	-	central library
19	U. of Mohaghegh Ardabili	-	2, 1/30	-	face to face	-	deputy of research
20	Imam Khomeini International U.	-	-	+	face to face	-	central library
21	U. of Birjand	+	2	-	face to face	-	central library, deputy of research, faculty of science
22	ShahreKord U.	+	2/30	+	face to face	-	deputy of research, center for entrepreneurship
23	Gorgan U. of Agricultural Sci. and Natural Res.	-	-	-	face to face	-	scientific association of water engineering group
24	Vali Asr U. of Rafsanjan	+	8, 4	-	face to face	-	central library
25	Hakim Sabzevari U.	-	-	-	-	-	faculty of sport sciences
26	U. of Maragheh	-	4	-	face to face	-	scientific association of plant pathology
27	Tafresh U.	-	-	+	face to face	-	faculty of electronic engineering
28	U. of Hormozgan	+	2	+	face to face	-	deputy of research
29	Malayer U.	+	6	-	face to face	-	scientific association of faculty of science
30	Koramshahr Marine Sci. and Tech.U.	+	2	-	face to face	-	research information management
31	U. of Science and Culture	+	-	-	face to face	-	open and specialized training center
32	Imam Reza international U.	+	2, 3, 4	+	face to face	End Note 16	deputy of research, information science association
33	Sharif U. of Technology	+	4	-	face to face	-	central library
34	Iran U. of Science and Technology	-	3, 4	+	face to face	-	central library, deputy of research
35	Babol Noshirvani U. of Technology	-	.83	-	face to face	-	deputy of research
36	Shahrood U. of Technology	-	-	-	face to face	-	faculty of computer science
37	Petroleum U. of Technology	+	-	-	face to face	-	deputy of research
38	Kermanshah U. of Technology	-	4	+	face to face	-	deputy of research
39	Arak U.of Technology	+	1	-	face to face	-	deputy of research, deputy of

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