

Reference and Information Services & Information Technology Sections

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## **Implementing virtual reference services for children and young adults in the Iranian children National library website**

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### **Abstract:**

*Modern technologies play a significant role in library activities and services, including reference services nowadays. Research has shown that children and young adults compose a great population of Internet users. They think they are so competent enough that they can train their parents on how to use the Internet. However, some studies have indicated that they are not successful in finding information, or using online catalogues and digital references in the Internet. They may get lost in the digital environment where a wide range of information is available. Therefore, they need an expert who is able to help them with their required information, as well as a space where they can ask their questions. Researchers and practitioners believe that the cooperation of children and young adults in designing such environment is greatly valuable. A virtual reference service was designed and launched in the Iranian Children National library Website by collecting information through uninstructed interviews and analyzing them.*

**Keywords:** Virtual reference service, Children and young adult, Iranian Children National Library Website

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## **Introduction:**

Using the Internet and statistical references has been increasingly widespread in the recent years and using computer technologies in schools and libraries is getting very popular. Nowadays, children and young adults prefer the internet over libraries, even if finding the same information takes hours on the internet. Children and young adults' emotional needs and experiences are different from adolescents. However, their needs and experiences should not be subordinated to those of adults (Katz, 2003).

Librarians and adults frequently talk about children and young adults in the libraries, but they rarely consult with these groups to understand their ideas and needs regarding the transformation and development of their library references and services. Research findings stress that children and young adults like to be heard and their ideas be considered in initiating any changes in library services (Druin, 2005).

Iran National Library Section for children and young adults was established in 1981 with the aim of providing a standard and comprehensive body which organized references, including books and non book materials, and offered services to children between 7-14 years old. Like other publications, books which are produced for children are sent to the national library through depository law and are reflected in Iran National Library bibliography. At present, the library lends its printed references to those researchers who investigate issues related to this age range. Incidentally this library should be the pattern for other children's libraries all over country so that the administrators of these institutes are informed about the method of organization, processing, information services in this field.

As children and young adults do not have direct access to library references, attempts have been made to digitize the books and put them on the library website. International Digital Library model is followed to digitize children's books and make them available on the library website. The uploaded books and materials are available for the target population for free. The address of this database is <http://icnl.nlai.ir/default.aspx>



Figure 1. Iranian Children National library Website (in Persian)



Figure 2. Iranian Children National library Website (in English)

One of the main responsibilities of Iran National Library is providing reference services to users and members. Since 2011 such services have been provided in the virtual world. At first, these services targeted adolescents but, as we got more familiar with the unique needs of children and young adults, designing and providing such services were considered for them too. After successful implementation of virtual services during a five year span, and considering the needs and inquiries of the students, designing such services for this group was necessary in the Iranian Children National library Website.

So far, in Iran little is done for children and young adults in the field of reference services, especially virtual reference services. In order to understand the needs and searching behaviors of children and young adults, we employed Analytical surveys approach and collected data by uninstructed interview.

### **Procedure:**

The present research was conducted in two stages:

At first, users' needs were analyzed.

Then, virtual references were designed and launched on the Iranian Children National library Website.

In order to develop the questionnaire, library research was performed. The questionnaire comprised of two sections; demographic and main study questions.

The latter section included three main questions:

The amount of time spent on the Internet by the children and young adults members of the National Library.

The degree of using the internet to do homework and other activities.

The extent to which providing reference services was needed by the users.

After checking the validity and reliability of the questionnaire, a focus group –teachers, librarians, parents- was selected and they were asked to orally answer to the questions. The sampling method which was adopted was convenience sampling uninstructed interviewing the participants (children who are using ICNL<sup>1</sup> website), rapport was established and the participants were given a short explanation about the objectives of the investigation such as concept of reference services, reference librarians, virtual reference services.

### **Findings about users' needs:**

By convenience sampling, 100 participants between the age 7-14 had chosen. The participants included 40 percent male and 60 percent female.

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<sup>1</sup> . Iranian Children National Library

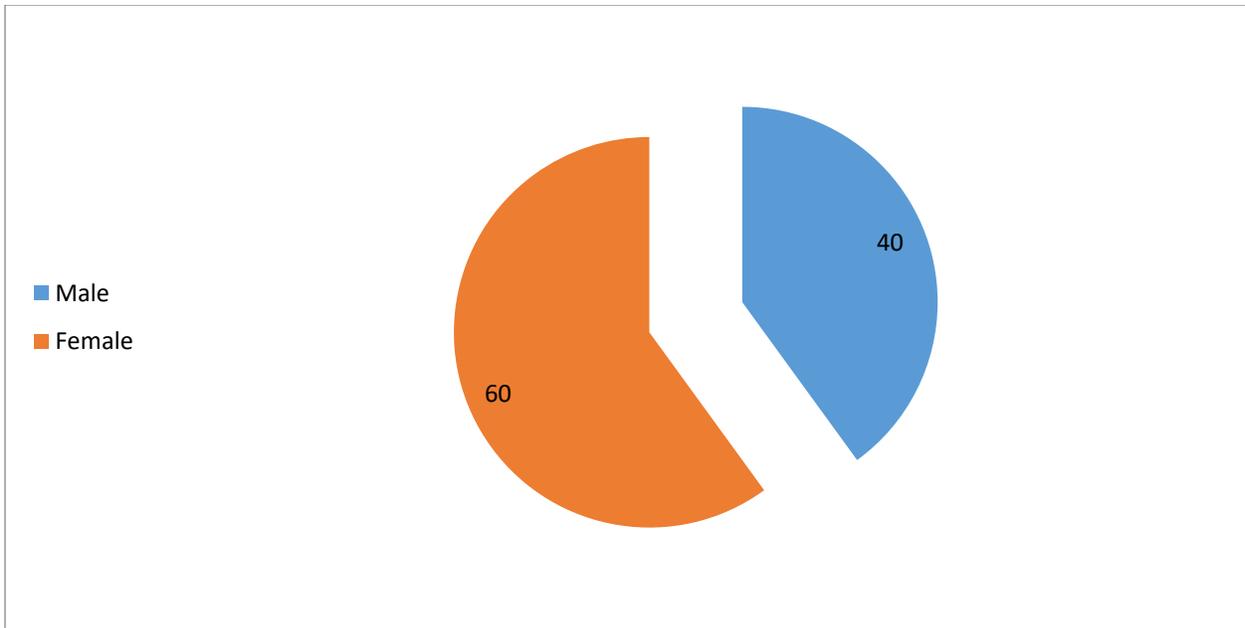


Figure 3. Demography of the participants

In response to the first question which sought whether the participants used the Internet and Web, 95% of the respondents stated that they used the Internet and search engines. Of them, 76% used them by themselves and without the assistance of others. While 63% asserted that they had access to the Internet at school, 87% noted that they could use the Internet at home. Further, 50% used the Internet on daily basis. Finally, 53% had no email accounts, but 88% used their parents' email accounts.

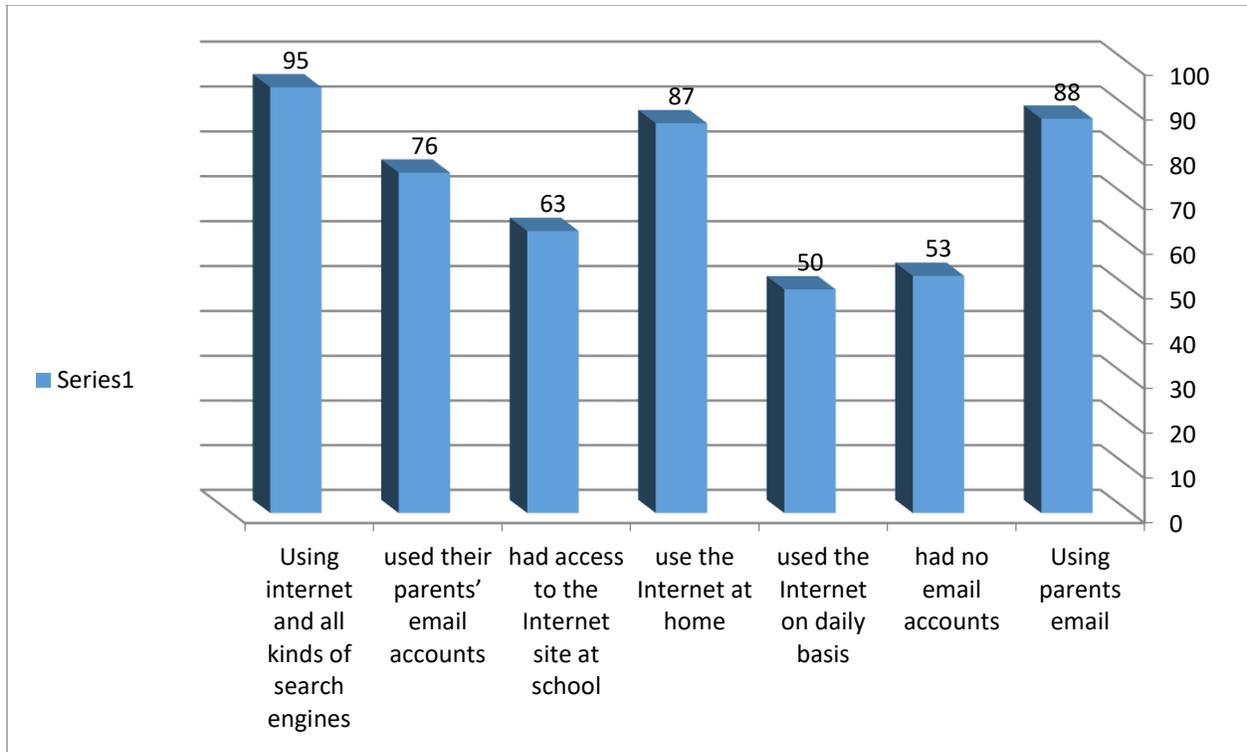


Figure 4. The percentage of using the Internet by the participants

The participants were also asked about using the Internet to do their homework and other activities. While 76% underlined that they used Internet to do their homework, 68% confirmed that they used it to find answers to unimposed queries.

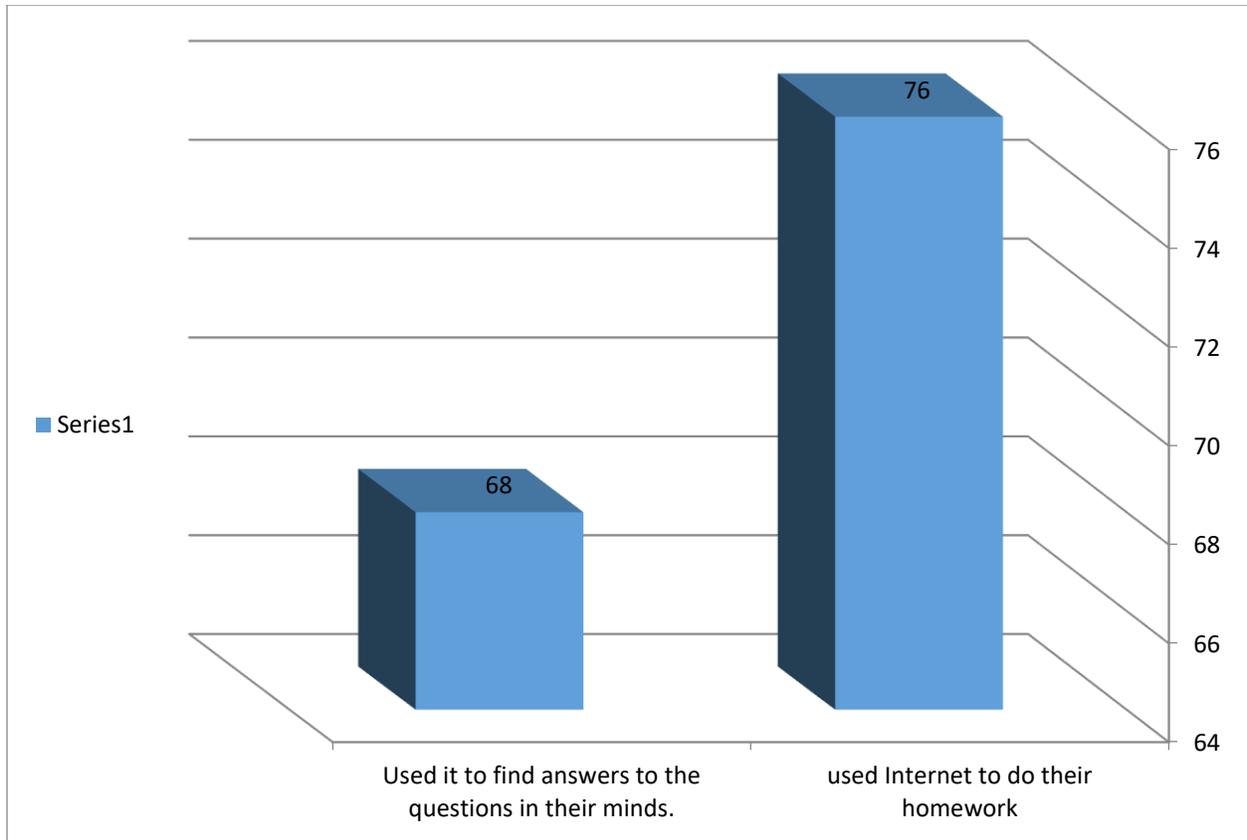


Figure 5. The percentage of using the internet to do homework and other activities

The third research question sought the necessity of providing reference services to the users. 96% of the participants believed that establishing a section called ‘Ask the Librarian’ in the National Library for children and young adults was necessary. Besides, 98% of the respondents claimed that an expert was needed to help them do their internet browsing.

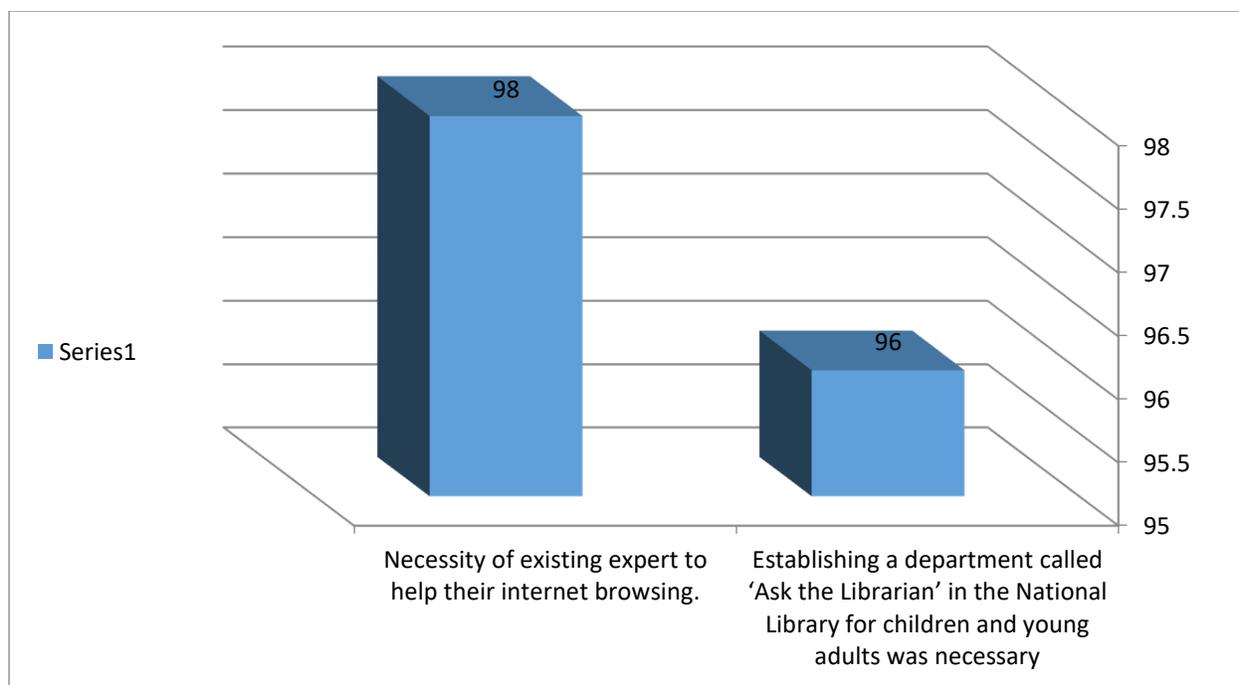


Figure 6. The percentage of the necessity of providing reference services

### **Designing and launching virtual reference on the website of Iranian Children National Library:**

In designing virtual reference service on Iranian Children National Library website, some elements had to be taken into consideration:

Who would use these kinds of services? This was one of the most important questions. For this purpose, the study of demographic variables such as age, gender, population and the degree of access to information and communication technology were useful (Gholami, 2009).

At the beginning we predicted that the most important function of virtual reference service for their users was only answering to homework questions, but the data showed that the young users used virtual reference service for personal queries.

#### **The location of virtual reference service on website:**

The place of virtual reference service on Iranian Children National Library was also very important. There could be help requests from users at any moment (figure2). Hence, the best way to remind them to use these services was putting enough links all over the website and in each page (Cooper & Valentine, 2001).

#### **User interface: effective and interactive design**

Apart from availability of our special and useful resources, we had to guide children and young adults in the right way so that they could use these resources adequately. Direct interactive system had a significant role for users when they utilized virtual reference service (Borgman, 1995). The most efficient method to attract these special groups is using bright colors, appropriate pictures and words with appropriate font sizes.

Another point which had to be taken into consideration was that children were not able to use Boolean operators to ask questions; using natural language was more convenient. Also, a study has demonstrated that the shape of the user interface is very important for users (Large, Beheshti & Tarjin, 2003).

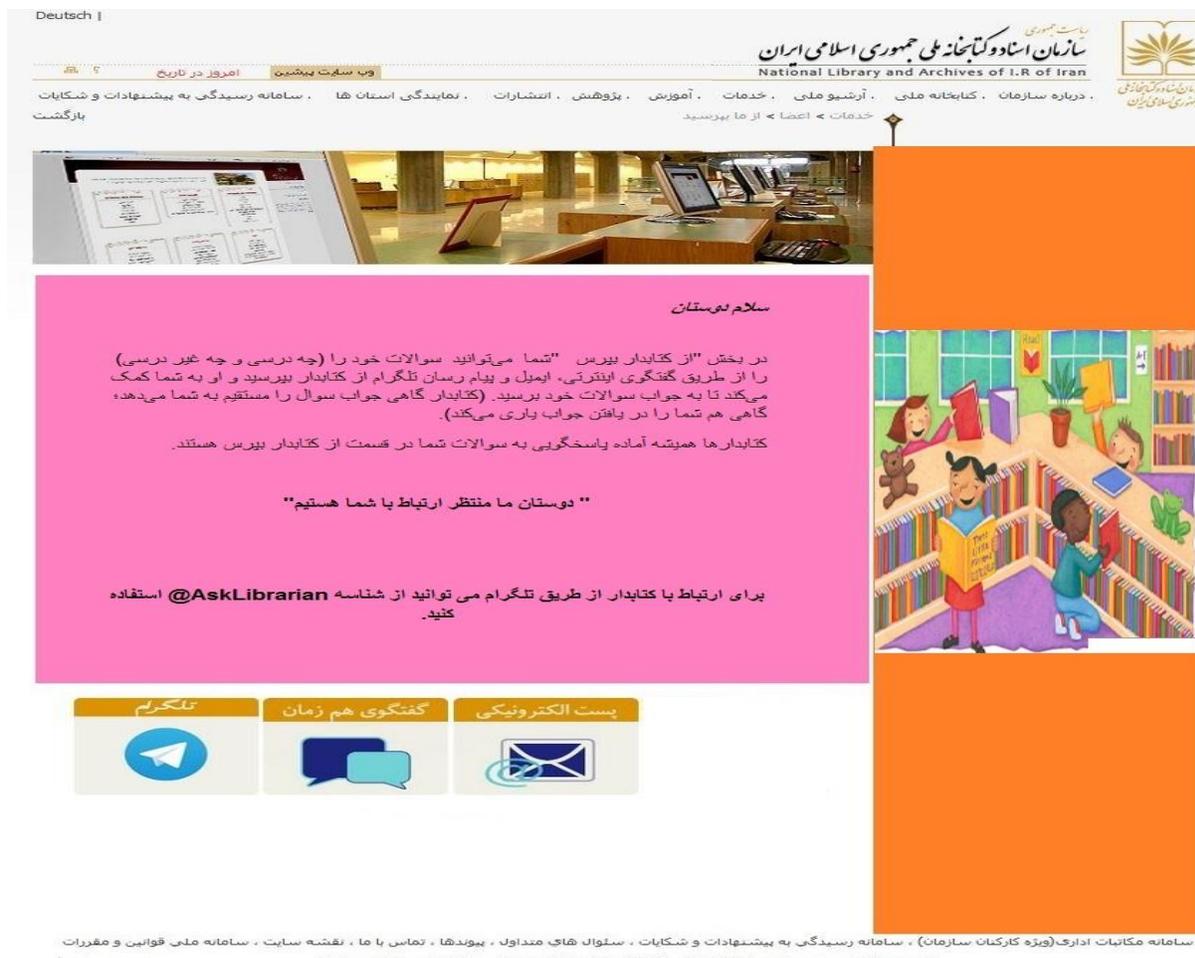


Figure 7.

### Presenting virtual reference service to children and young adults

Research has shown that children and young adults use chat and email more than other services. It seemed logical to implement virtual reference service by using these two media. Establishing these kinds of services requires precise planning, because particular groups with special needs will use them (Janes, 2004).

Implementation of virtual reference service has some challenges. These challenges are the same as traditional reference service. Children don't give enough information about their needs to librarians. Because of using nonverbal signs, understanding users' questions is harder in the virtual environment than in the real environment. Besides, as children and young adults type slowly and sometimes don't know correct dictation of words, collecting extra information for a reference interview becomes a difficult process and will be slow (Luthy, 2005).

Another problematic issue is that children and young adults misunderstand the way email and chat are used. For instance, they type one or two words like when they search the search engines

and expect immediate response. To understand the users' questions and requests via email is very difficult and even sometimes impossible, especially when the users have not completed personal web forms completely and correctly(Luthy, 2005).

Based on the above points, these services were launched as follows:

1. Email-base virtual reference service:

By this method, children and young adults can send their questions during day and night and will receive answers through their emails in web forms(filling up web form is obligatory).

نام و نام خانوادگی \*

جنسیت \*

سن \*

شماره تلفن همراه \*

پست الکترونیکی \*

منطقه تحصیلی \*

رشته تحصیلی (مخصوصاً منطق متوسطه دوم) \*  
 ریاضی و فیزیک  
 علوم تجربی  
 علوم انسانی  
 فنی و حرفه ای  
 کار و دانش

سوال شما چیست \*

نوع سوال \*

تاریخ ارسال سوال \*

دبستان  
 متوسطه اول  
 متوسطه دوم

درسی \*

غیردرسی \*

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Figure 8.

## 2. Chat-based virtual reference service:

Clients can send their questions online and receive answers online too. The time of chat service is 14:00-16:00 every day except weekends and holidays.



Figure 9

## 3. Using Telegram application service as a modern tool for virtual reference service:

After successful implementation of these modern technologies for adult virtual reference service and their popularity among clients (the majority of users used Telegram application), we decided to use Telegram for children and young adults virtual reference services. Telegram application has several positive features such as: easy and informal communication with reference librarian similar to traditional reference service, possibility of sending different types of files in telegram environment, using stickers instead of words and its ease of access.

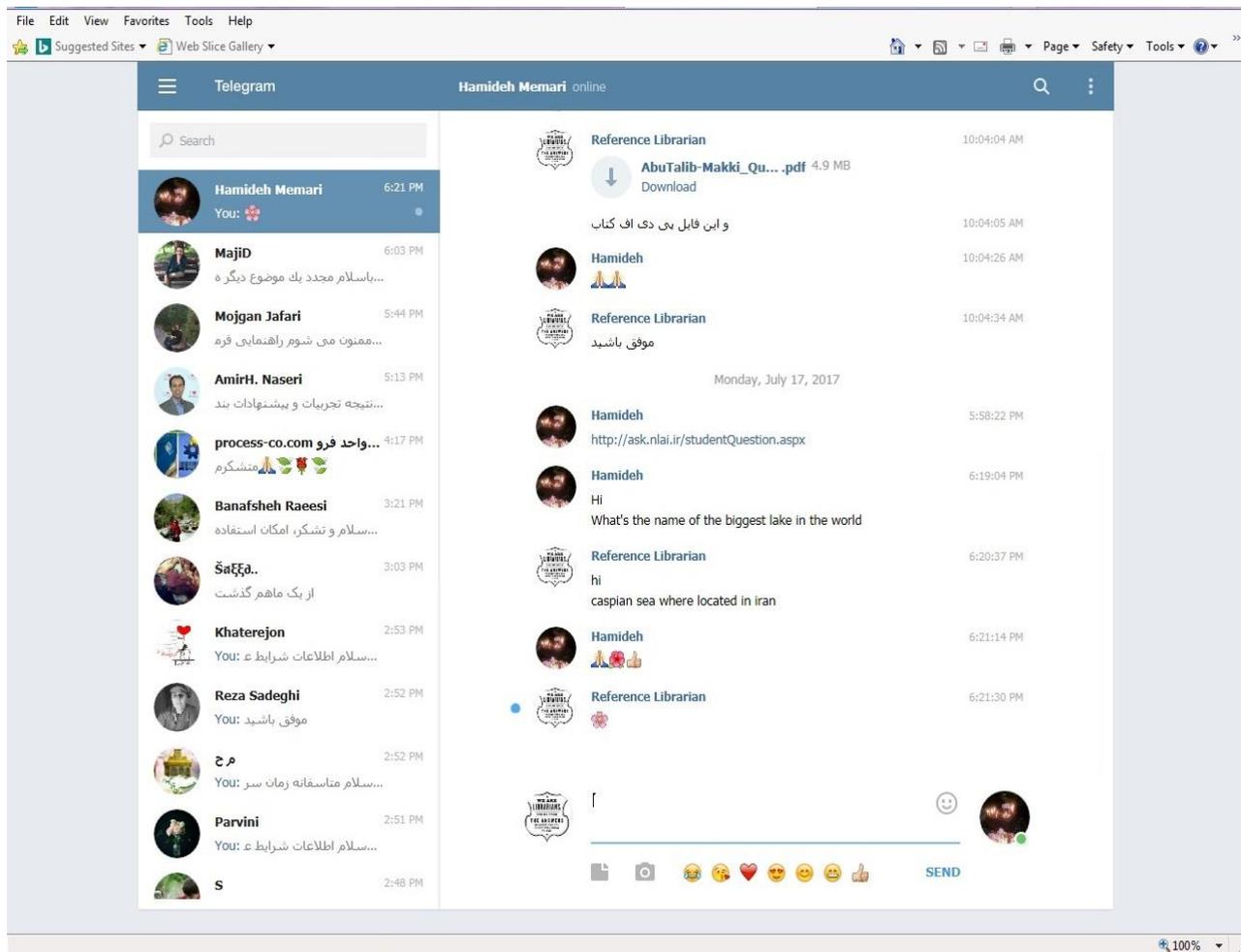


Figure 10.

In designing virtual reference services for children, some points should be considered: age, reading proficiency and educational level, and perceptions of users who use this service. Considering these elements, the following web form was designed:

### **Traning children and young adults to use virtual reference service:**

At the beginning, children and young adults should become familiar with searching strategy, information retrieval and information evaluation. One of the responsibilities of library is to assist children and young adults and train them in searching skills and critical thinking.

The research about online searching skill shows that being familiar with the Internet and having searching experience have positive effect on information retrieval outcome and level of satisfaction (Siverstein, 2005). Therefore, training searching skills to children and young adults is necessary. For this purpose we created an instruction manual and put it on the website:

[search strfategies](#)

## **Conclusion:**

The result of research indicates the necessity of providing virtual reference services to users. The majority of users claimed that an expert was needed to help them do their internet browsing and establishing a section called 'Ask the Librarian' in the National Library for children and young adults was necessary. Chat, email and Telegram messenger were found to be very useful and implementation of virtual reference service was welcomed by the users.

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