

## Evaluating the effectiveness of multilingual library OPAC of the academic libraries in the Arabian Gulf Countries: Usability study

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### Abstract

The study proposes to identify the status of the multilingual academic libraries' (OPAC) Online Public Access Catalog in Arabian Gulf Countries from the design, subject, effectiveness, and distribution. The study explains the evaluation by using the usability test. The strengths and weaknesses in websites sample of study, as the library interface reflects the library services.

The researcher's aim, is to explain the students viewpoint to evaluate the academic libraries websites in four central academic libraries, which are United Arab Emirates University, Sultan Qaboos University, University Of Bahrain, and King Faisal University.

The researcher focuses on some elements of the evaluation. Traditional library serves user face to face, however, library OPAC reflects traditional libraries on the web without librarian's assistance. The researcher concludes that the results of the study will become a model for academic and non-academic sites, and open the doors for the way other sites to redesigned.

### 1.1 Introduction

The academic library website (OPAC) Online Public Access Catalog has to cope with the contemporary situation and the new century. The world has become a universal village that requires better use of the information globalization so that one may choose the best information and make it available to the user of the university libraries. The libraries face challenges represented in all the changes in library science on the library and information science; one of the variables should the library choose to focus on it, is to create a website that reflects the library's purpose: making information accessible in an efficient manner. Each university in the Arabian countries has different rules. Some of these countries have good financial support from the government, and so it can design and create the interface of its own libraries. Most of these countries use a system called(DYNIX).□

A user needs to easily navigate and have easy access to the libraries' websites through evaluation of the web sites as well as to monitor locations of Arabian libraries more attractive.

The study chooses for the application of the following university libraries:

United Arab Emirates University “<http://www.uaeu.ac.ae/en/>”

King Faisal University “<http://www.kfu.edu.sa/sites/Home/>”

Sultan Qaboos University “<http://www.squ.edu.om/>”

University of Bahrain “<http://www.uob.edu.bh/>”□

### 1.2 The Statement of the Problem and Research Questions

The problems with academic libraries websites can be summarized by the following questions:

- (1) What is the role of the library to facilitate the task of the users in their access to the information required?
- (2) What are the problem's nature and constraints that face the users in navigating the library websites to get information sources?
- (3) What are the types and numbers of multilingual library OPAC available on the Arabian Gulf Countries that the users needed, and

that focus on area of the user's interest? How can a researcher of new scientific development access the information required for research?

(4) Is it easy to use the academic library websites in two languages English and Arabic? What would be the requirements to achieve this purpose?

### 1.3 The Purpose of the study

The purpose of this research is to analyze the elements that affect an OPAC in the academic libraries in the Arabian Gulf Countries, keeping in mind that "Testing reminds you that not everyone thinks the way you do, knows what you know, uses the Web the way you do." (Krug, 2006, p. 134).

The proposed study will help to:

1. Identify the status of multilingual academic libraries on the web from the design, effectiveness, and distribution.
2. Identify any obstacles to the design of the interface of academic libraries at the Arabian Gulf Countries.
3. Improving user's skills and making library websites more effective from aspects of design and accessibility.

Most importantly, this study provides suggestions of effectiveness for those libraries' websites used by both native Arabic speakers and international students.

The Strengths and weakness in those websites identified, as it is an important source to the user; especially the library interface reflects the library services. The user in this case cannot get direct help from the librarian face to face. The user depends on his/ her capabilities when using the library website; therefore, the library OPAC should reflect how easily real library assistance is accessible by the user.

The study discusses if the multilingual library OPAC is the same when using it in Arabic and English language. Which one is preferred more from the user and why? Is the retrieval the same in each interface? Has the university translated all pages for university, library page, OPAC, and inside OPAC for instance

search box options. Is the OPAC providing for the user's need? Is it possible to the user to get back from the library OPAC to the library page and to the university home page? The researcher wants to know exactly the user's behaviour, skills, and the library website weaknesses in design, search option, and features.

The usability test conducted in four days in Simmons college lab. Each student from the three students took between 35-40 minutes to complete all the tasks. The researcher was the observer giving the instructions to the users and then analyzing the data by using Morae program. Based on Morae program the researcher measures the user's skills, analyze the steps access to the library OPAC, and finally discover the weakness in those websites.

The importance of the study includes the economic, administrative and research, factor of the users affected by the library OPAC that adopted by the universities in terms of time and effort to the users. On the other hand, the libraries have to plan user services, plan of the user's services through the provision of search services to identify appropriate properties that meet their needs in access to these libraries that are consistent with the requirements of research and increase the effectiveness of these libraries and their advancement in the current circumstances and future.

## 2.1 Review of Literature

When the literature is reviewed, it is clear that there are various studies that used a number of rules for the evaluation of the pages of the websites of academic libraries. The literature focuses on the usability on using libraries websites, the number of results confirmed the need to put the concerns and views of users in the consideration, and these results are (Literature Review: usability and library web sites):

1. The users from the library websites do not know from where they can start to search; also, they confused from the multiple options on the library website.
2. The designer of the library website creates the website according to his opinion without cares to the user's opinions.

3. Most words used in the library website are not clear to the user's understanding.
4. Users prefer ease and simplicity in the design.
5. Users do not read long website pages, particular Arabian libraries' websites that have a lot of announcements.
6. Users who do not find the information they are looking for help and this is difficult to verify on the web.

Study of literature reviewed for testing usability of academic libraries (Battleson and Booth and Winthrop, 2001). The study applied at Buffao libraries by using formal usability testing. One of the important studies that focusing on think-aloud protocol as a method in usability test is: (Haak and Jong and Schellens. 2003). Benjes and Brown, (2001) usability study to evaluate the Southern California University website. There is also an article applied on academic health science library website (Ascher and Heimer and Cunningham, 2007). The researcher depends on this study in using the evaluation's tools to measurement the effectiveness of the library. The researcher did not find any study related to this topic in Arabic language

### 3.1 Research design

The study hypothesizes, that the usability retrieval for the multilingual library OPAC will be comprehensive and effective. Multilingual library OPAC will give the user more options on access to the library collections. The study includes research questions' such as: Does the student using academic library website; what is the subject's track for the Arabian multilingual OPAC; and does it achieve a good job as a source to the Arabian user in his/ her study and other audience. What is the most common problem that appears in improve the multilingual OPAC in those countries, and what is the weakness?

### 3.2 Design and testing of the Usability test questions

The study applied a usability test questions. The Usability test questions include specific questions (Appendix 1) in addition to the pre-test interview (Appendix 2). The test applied to three students, because it is hard to find many students from Arabian countries at Simmons College in the United States. The test conducted in the usability lab at Simmons College.

### 4.1 Results/ Analysis

There are two data gathering exercises; in the form of Pre-test interview and Usability test for three patrons.

### 4.2 Results of Pre-test interview

This includes analysis of the data that was gathered by the Pre-test interview questions.

Q- The test included three students; a male Ph.D student in Library and Information Science, a female M.A. student in Special Education and an undergraduate student of Financial Economics.

Q- Have you used the library OPAC (catalog) before?  
Two of the students answered somewhat and one answered yes.

Q- If you use the library catalog, how many times have you used the catalog in the past two weeks?

All three patrons chose (no time limits), between two and four times a semester.

Q- Are you satisfied with the library OPAC (catalog), that provides what the user needs to access?

Two of the students were not satisfied, while one student was satisfied.

Q- How would you describe what is missing if you are not satisfied with the library website?

One of the students did not get enough results in English language. Another student answered that there is a lack in the multilingual interfaces translator, and the third student answered that there is a lack of retrieval tools.

**Q-Which language do you need more in your field? Please use numbers from (1-5) (1) need more, (2) need (5) least use.**

**The entire students chose English language.**

**Q-Would you prefer to look for a topic in Arabic or English?**

**Two students answered English and the reason was: Most books are old in Arabic language especially in the field of study.**

**Q-How long does it usually take you to find materials by using the library catalog?**

**Two students answered between 2-4 minutes, and one answered between 5-7 minutes.**

### **4.3 Results of Usability Test**

**The test was conducted in the usability lab at Simmons College. The results and statistics that were obtained based on the Morae Program are presented:**

**Task one: where is the library catalog? (Appendix 3).**

- \* There is no link to get back from the library page to the university homepage for all libraries.**
- \* It is difficult to find language icon in the universities homepage.**
- \* It is difficult to access the library catalog for all sample libraries.**

**Task two: Where is the search box? (Appendix4).**

- \*All users used the wrong search options, as can be seen in the form below.**
- \*Two of the users used a keyword without limiting search options.**

**Task three: How many results did you find? (Appendix5).**

- \* The users got different result according to the search options they chose.**
- \* The retrieval for the source in Arabic is not accurate, and it gives comprehensive results, also in English it is not accurate too.**
- \* The design for those websites is not helpful because some times it does not show the results number.**

**Task four: Using search box options. (Appendix 6).**  
The users did not use search options, they chose general search, or keyword to search.

The libraries did not design clearly the places for search box options. Most students chose the basic search box without chose options for advance search.

**Task five: What are the other types of options? (Appendix 7).**

One library from four sample libraries has an option to purchase and a suggestion to order the source. One user out of three found this option clear. While the other two users did not find the option clear.

### 5.1 Conclusion

The results and statistics that were obtained based on the Morae Program showed that participants were not satisfied.

- \* It is difficult to find language icon in the universities homepage.
- \* It is difficult to access the library catalog for all sample libraries.
- \*All users used the wrong search options.
- \*The users used a keyword without limiting search options.
- \* The users got different result according to the search options they choose.
- \* The retrieval for the source in Arabic and English are not accurate, and it gives comprehensive results.
- \* The design for those websites is not helpful because some times it does not show the results number.
- \*The users did not use search options, they chose general search, or keyword to search. The libraries did not design clearly the places for search box options.

It is necessary to identify and fix design problems before websites are launched. The researcher expected after the process of analysis data of the study, usability test that he would get very accurate results and will contribute to the development of websites in Arabian libraries and make them accessible to scholars and foreign



students. This will lead other Arabian websites to re-think in the design and structural positions available on the web. The researcher found through observing to the web sites in the sample libraries that contain weaknesses in both the navigation and design, even for used vocabularies, which is known just for librarian.

The results that obtained were good and worthy of study because it is moving in the direction of scientific research within the limits that appear in the advanced search. The study can be relied upon as a starting point in the evaluation of Arabic sites an appropriate form dedicated researcher to focus in specific points in the usability test.

In general, the study focused on the following points:

The clarity of the contents of the site by offering free access to the site of the library contains kind of ambiguity. The quality of the design is more attractive and professional as it gives a good impression to the user and encourages him/her to repeat visit.

Analysis applied through the comparison between the users of the service B.A., M.A., and Ph.D.

The results of the study may become a model for the rest of the academic and non-academic sites, and unfold open the doors for the way other sites are designed errors are fixed. All in the way designers sites for consideration and fix it, if it is there.

Finally, academic libraries in the Arabian Countries need organizations concerned with library design to support and sponsor serious and effective projects. This would help academic libraries in the Arabian Countries rise again by themselves and be able to developed library services, and create a connection between library website creators around the world.

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## Appendixes

### **Appendix 1 Usability test**

The researcher's goal was to obtain the user's viewpoint in order to evaluate the library OPAC of the academic libraries' websites. The results of the study will help us to discover any weakness in the websites.

United Arab Emirates University  
Sultan Qaboos University  
University of Bahrain  
King Faisal University

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#### **The Tasks:**

**Task 1- Open the homepage of the University of.....?**

Then go to the library page and open the library catalog. Can you get back to the main page?

**Task 2- Search about the topic (Al-Mawrid dictionary), how many numbers of results did you find?**

**Task 3- How many results are shown to you on the screen in the single page? Do you think the result(s) is correct, does it include the entire information about the source?**

**Task ٤- How many search box options did you find when you searched in the library catalog? Did you find other options to search?**

**Task ٥- If you did not find the source could you find options to order the source for example (Suggest A Purchase) to the library?**

.....

Start over and search in Arabic language

**Note: The same questions above asked, just they should search about the topic in Arabic language.**

**Appendix 2**  
**Pre-test interview**

**Thank you for volunteering to participate in this test**

**First: Background information** □

**1- Gender:**

Female

Male

**2- Your current status:**

Student

Year

( ) Name of the College

( ) Field

**3- Your highest level of educational:**

Undergraduate school

Graduate school

Other (please specify) \_\_\_\_\_

**4- Are you using the library OPAC (catalog) before?**

Yes

Somewhat

No

**5- If you are using library catalog, how many times do you use the catalog during the semester?**

Once a day

Once a week

Every ten days

Every two weeks

Other (please specify) \_\_\_\_\_

**6- Are you satisfied with the library OPAC (catalog), in providing the user's needs to access?**

( ) ( ) ( ) ( )

**Very satisfied   Satisfied   Somewhat satisfied   Not Satisfied**

**7- How would you feel, if you were not satisfied with the library website?**

not provide user's needs

- not enough search box
- lack in the multilingual interfaces translator
- lack in retrieval tools
- Other (please specify) \_\_\_\_\_

8- Which language do you need more in your field? Please use numbers from (1-4, use number (1) for more need,(5) least use and so on.

Languages	Degree of use
English	
Arabic	
French	
Russian	
Other(please specify)	

9- Would you prefer to search about topic in?

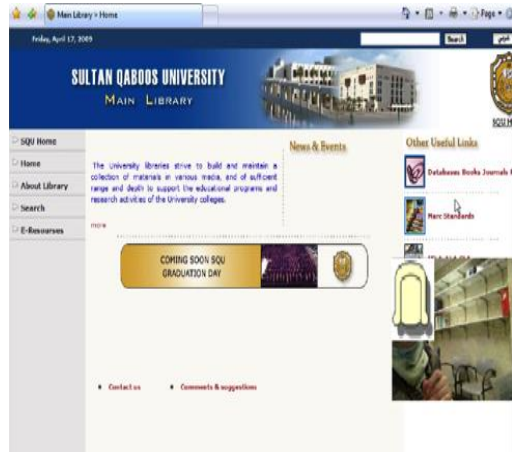
- Arabic
- English
- Other \_\_\_\_\_

10- How long does it usually take you to find materials by using the library catalog?

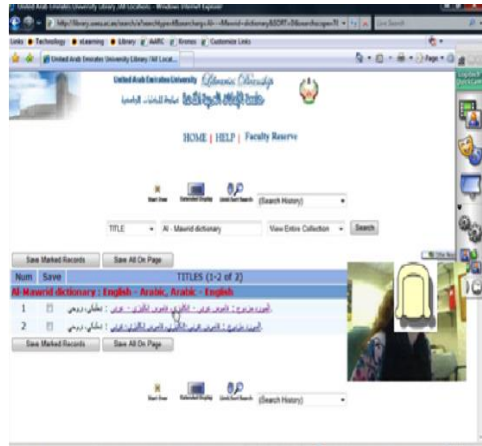
- less than 1 minutes
- Between 2-4 minutes
- Between 5-7 minutes
- Between 8-10 minutes
- more than 10 minutes

Thank you for cooperation

### Appendix 3 Task one: where is the library catalog?

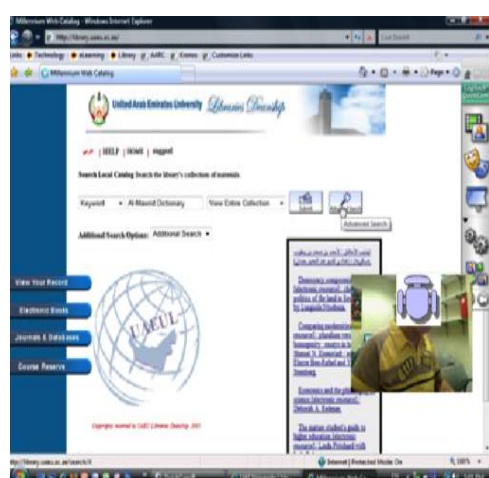
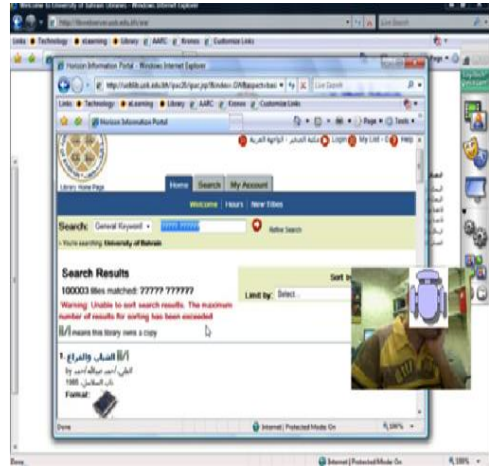


Appendix 4  
Task two: Where is the search box?





(Appendix 5)  
Task three: How many results did you find?

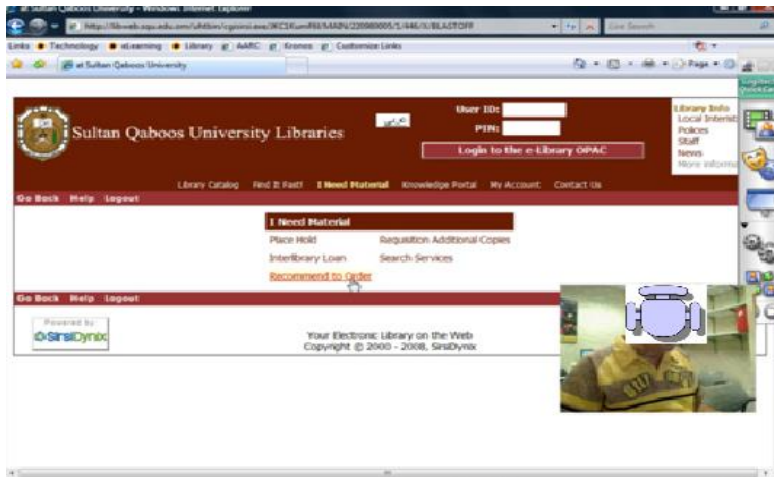




(Appendix 6) □  
Task four: Using search box options □



(Appendix 7) □  
Task five: What are the other types of options? □



تقييم فعالية (OPAC) للمكتبات الاكاديمية المتعددة اللغات في دول الخليج العربي: دراسة قابلية  
الاستخدام Usability study

الملخص

تتلخص الدراسة في تحديد حالة الفهرس العام المتاح على الخط المباشر (OPAC) للمكتبات الاكاديمية ذات الواجهة المتعددة اللغات في اقطار الخليج العربي من ناحية التصميم، الفاعلية، والتبويب. الدراسة قد طبقت التقييم بواسطة استخدام اختبار قابلية الاستخدام (Usability test) لقد انعكست نقاط الضعف والقوة في صفحات الانترنت لعينة الدراسة من خلال تقييمالخدمات المقدمة من قبل المكتبة. هدف الباحث هو لتوضيح وجهة نظر الطلاب من خلال التقييم الفعلي لصفحات الويب لاربع مكتبات مركزية اكااديمية والتي هي مكتبة جامعة الامارات العربية المتحدة، ومكتبة السلطان قابوس، ومكتبة جامعة البحرين، واخيرا مكتبة جامعة الملك فيصل. لقد ركز الباحث على بعض النقاط الجوهرية في عناصر التقييم. حيث ان المكتبة التقليدية تخدم المستفيد وجهاً لوجه. اما بالنسبة للفهرس العام المتاح على الخط المباشر فانه يعكس خدمات المكتبة التقليدية على شبكة الانترنت بدون مساعدة المكتبي. ويخلص الباحث الى ان نتائج الدراسة سوف تكون امودجاً يحتذى به في تصميم مواقع المكتبات الاكاديمية وغير الاكاديمية وستفتح افاق جديدة لاعادة النظر في تصميم مواقع المكتبات على الويب