

AN E-COLLABORATIVE SELECTION AND USE OF E-RESOURCES TOOL FOR INFORMATION LITERACY IN A SAUDI ARABIAN SECONDARY SCHOOL FOR FEMALES

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ABSTRACT

Today, a knowledge society is characterized by information literacy, and the introduction of new business models in many domains, including education. However, in developing countries, information literacy is very limited. This can be attributed to many reasons such as less accessing and availability of e-resources, technical problems, cultural aspects, and the lack of qualified librarians. Earlier studies have indicated that students need exposure to e-resources to overcome the information literacy among students. The purpose of this study was to help to overcome the limitation of e-resources exposure by learners in Saudi Arabia or in other words how to let school students in developing countries get exposed to e-resources. To attain this objective, the researcher developed an E-Collaborative Selection and Use of E-resources Tool (ECSUET) for coursework development. The study methodology was descriptive methods; it used interview and questionnaire for data collection. This study was carried out at Al-Bayan Model Girls' Secondary School, Jeddah, Saudi Arabia. The study examined the learners' satisfaction with the availability, variety, accessibility of e-resources using ECSUET for science subject. The study covered all 116 students enrolled in Semester 1 and 2 of the school's 2007/2008 academic year. The study findings showed that the overall mean of the questionnaire was 3.91 which means that the students are receptive of using ECSUET. A total of 88.8% students gave ECSUET evaluation mark of 8-10 (out of 10 marks), which indicates that students' satisfaction level of using the tool is high. In addition 97.4% of students stated that ECSUET should be used for all subjects. These findings would be useful for other developing nations which would like to apply using similar tool in different languages in order to inculcate information literacy among their students.

Keywords: Online Collaboration; Information Literacy; E-Resources; E-Learning Environment; ICT in education.

INTRODUCTION

Information literacy (IL) is one of the characteristics of a knowledge society, and the introduction of new business models in many domains, including education. However, changes are under way with great levels of complexity, making it difficult to make resolutions about information technology (Clyde 1999, p.7). However, as written by Plantenga, Potrony and Remery (2004) a knowledge-based society has the following basic characteristics, both at a political level and from the perspective of social sciences:

- The large-scale diffusion and use of new information and communication technologies.
- The intensification of innovation (organizational as well as technological) within all kinds of organization.
- The development of service economies, where service sectors have also knowledge-intensive services to play a major role.

- The trend towards higher educational attainments and more intense life-long learning.

Information Literacy is commonly seen as essential to the pursuit of life-long learning, and central to achieving both economic development, and personal empowerment (International Encyclopedia of Information and Library Science 2008, 261).

INFORMATION LITERACY DEFINITION AND BRIEF HISTORY

Information Literacy defined as "Information Literacy is the ability to access, evaluate, and use information from a variety of sources." (Doyle 1992). However, some researchers have different point of view. For example in early times of its conceptualization, information literacy has been recognized to be complex and multi-faceted (Bawden 2001). Multi-Faceted means the combination of a rich variety of skills and knowledge (McClure 1994; Taylor 1986). According to American Library Association (2006) "to be information literate, a person must be able to recognize when information is needed and have the ability to locate evaluate, and use effectively the needed information". A brief history of information literacy is presented in the International Encyclopedia of Information and Library Science (2008, 262):

The term Information Literacy was first used by Paul Zurkowski in the 1970s to bring attention to the needs of people working in the newly emerging technological environment. Since then, the concept has been taken up mainly by information specialists, and promulgated world-wide through the work of the American Library Association and the National Forum for Information Literacy. By the end of the twentieth century, Information Literacy could be said to be a truly global phenomenon, with interest evident across all continents and sectors.

THE ROLE OF SCHOOL LIBRARIES AND LIBRARIANS

International Federation of Library Associations and Institutions (IFLA) (2006) stated that the school library manifesto is meant "to provide information and ideas that are fundamental to functioning successfully in today's information and knowledge-based society. The school library equips students with life-long learning skills and develops the imagination, enabling them to live as responsible citizens." In addition, the IFLA ensured the role of the school library in a new information era to be globally understood by drafting its School Library Manifesto and relating to the UNESCO Public Library Manifesto (UNESCO 1998). Furthermore, IFLA (2006) publicized that "it has been demonstrated that when librarians and teachers work together, students achieve higher levels of literacy, reading, learning, problem-solving as well as information and communication technology skills".

Moreover, SKNVibes (2006) quoted Mrs. Ellen Grant, the coordinator at the Teachers Resource Unit in the Department of Education on Nevis as saying:

We must raise the bar in our thinking; libraries and librarians enhance the total development of our society. If we do not seek to strengthen the link between libraries and the classrooms, the real losers will continue to be our

students who miss access to current materials for information, recreational reading and team teaching by the class teacher and the librarians.

In addition, Greef (2007) wrote that “we teacher librarians are link people, the connectors to making the paradigm shift towards an integrated curriculum happen for our students”. In addition, she mentioned that teacher-librarians can’t do it single-handedly, it can be achieved through the support of the school administration, in collaboration with others, belief in school committee, and a vision for the future.”

COLLABORATION

FARLEX (2008) defined collaboration in this way: “to work together, especially in a joint intellectual effort”. In addition, collaboration is “the interaction among two or more individuals that can encompass a variety of actions, such as communication, information sharing, coordination, cooperation, problem solving, and negotiation” (Bitpipe 2007). Monteil-Overall (2005) mentioned that collaboration is a “trusting working relationship between two or more equal participants involved in shared thinking, shared planning and shared creation of integrated instruction. Through a shared vision and shared objectives, student learning opportunities are created that integrate subject content and information literacy by co-planning, co-implementing, and co-evaluating students’ progress throughout the instructional process in order to improve student learning in all areas of the curriculum.”.

This study replicates Monteil-Overall’s (2005) collaborative definition in modeling the conceptual framework of the study. Collaboration in this study is defined as as working together as a team (librarian and teacher) for the same vision, mission and objectives of educational goals, with the support of the educational committee, in order to achieve better learning processes, improve curricula and coursework relevance materials for enhancing the students’ academic performance.

Collaboration between Librarian and Teacher

Collaboration between librarians and teachers has become a 21st century trend. Jordan (2007) stated that one of the trends of the Online Computer Library Center (OCLC) is to increase collaboration. The American Association of School Librarians, and The Association of Educational Communication and Technology (AASL & AECT) (1998) stated that “the most recent guidelines for school library media programs describes the school library media specialist as a curriculum, instructional, and technology leader who collaborates with all members of the learning community to create a student-centered library media program”. Additionally, Champlain, Loertscher and Eib (2004) stated that “the media specialist serves as an information coach and teaching consultant who collaborate with teachers to build an information and technology-rich environment in schools where student achievement is improved”. Moreover, Champlain and Loertscher (2003) explained what had happened for students when collaboration occurs: “*When a teacher is willing to move a learning experience from the classroom to the media center, good things happen: there are now two teachers instead of one, an information-rich and technology-rich environment is available, and each learner can expect twice as much professional support.*”

Furthermore, Hughes and Hassell and Wheelock (2001) described collaboration as being in three stages, *cooperation*, *coordination*, and the last stage is *collaboration* where the

librarian and classroom teacher jointly plan instruction, develop instructional materials, and evaluate students' coursework. This stage is the main point of this study.

An E-Collaborative Selection and Use of e-Resources Tool

According to Abuzaid and Singh (2007), setting up a framework for the incorporation of e-library services within e-learning environments has been a lacking feature. Schools committee needs to define a framework in which its teachers, students and librarians can formally collaborate to provide relevant e-resources to support curriculum. The study proposes an e-collaborative selection and use of e-resources tool (ECSUET) to engage and operate between teacher, librarian and student. Therefore, the e-resource acquisition, quality assessment and management are planned and coordinated in a collaborative way. Through this, e-library services become a major part of the realization of the e-learning process. This collaborative e-resources management also helps in continuous collaborative e-resource filtering and refining, based on students' feedback. The conceptual framework is described, as it is shown in Figure 1.

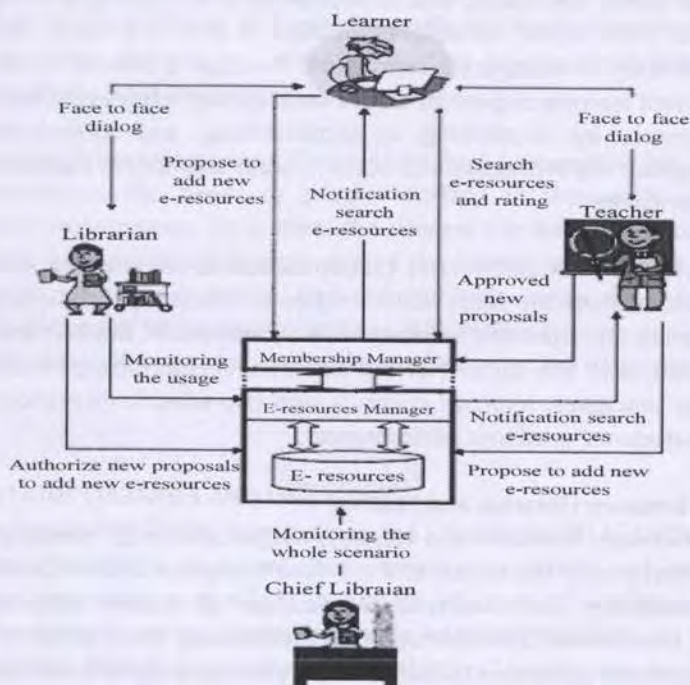


Figure 1: Conceptual Framework (Abuzaid & Singh, 2006)

In Figure 1, learners could request for new e-resources. This request will go to the librarian, and he is going to add the requested e-resource after consulting the teacher, and then notify the learner about the acquisition. Teacher could requests for more e-resources, approves the acquisition, and monitors learner usage. Chief Librarian can monitor the whole system.

E-LEARNING ENVIRONMENT HOST SYSTEM

According to Watanabe (2003), computer-supported educational systems have been developed as one inspiration to apply the capabilities of computers to different educational fields, and encourage the activities of students; e-learning was described by

this technology, and refers to various learning scenarios where technology plays a major role in the delivery of the educational content. Furthermore, Comerchero (2006) mentioned that e-learning helps students incorporate self-motivation, communication, and efficiency into their learning. The advances in ICT and the growth in the use of the Internet have massively reshaped the e-learning concept.

The e-learning environment in Al-Bayan School Model Girl's Secondary School in Jeddah was to enhance teaching and learning processes. In addition, it was acting as a host system for the study. Teaching and learning were done electronically by both students and teachers. While, monitoring the process was done by a number of administrators, implementation was not an easy task. It required a strong IT infrastructure in both software and hardware. MGD (2003, 6-8) stated that the requirements of the network design were to provide an infrastructure which allows the following functions:

- E-Learning process: Teachers and students connection to Micro Soft Class Server at home and in classrooms.
- Classroom Collaboration: Teacher show Broadcast in classroom, and availability for teacher to view students computers and chat with them.
- E-Mail: Teachers and students connection to Micro Soft Exchange Mail Server at home and in classrooms.
- User Data Backup: Replication of Student Data on Data Servers in classroom.

Considering these functions, the design has to meet the following non-functional requirements: availability, cost-effectiveness, extensibility, performance, reliability, and scalability. To provide the school with e-learning process, the school administration outsourced all the technology requirements to MGD since September 2002. According to Hassan (2004), Khaled Al-Dhaher, Microsoft Arabia's general manager said "Al-Bayan Model School for Girls, has switched over to e-learning" and that the program is centered on an "e-class" server which facilitates the learning process. The girls come with a tablet PC to follow the Ministry of Education-approved curriculum, which is completely electronic.

METHODOLOGY

The researchers conducted interviews and survey for data collection. The study covered all 116 students from 7th grade, 8th grade, and 9th grade who are enrolled in e-learning environment (e-classes) in Semester 1 and 2 of the school's 2007/2008 academic year, at Secondary School of Al-Bayan Model School for Girls Jeddah, Saudi Arabia. The researchers interviewed all students, and designed a questionnaire instrument which had 22 closed short questions in Arabic language to investigate the learners' satisfaction with the accessibility, availability, and variety of e-resources using ECSUET for science subject.

FINDINGS

This study applied interview and questionnaire to examine the three satisfaction dimensional aspects, which are (a) Accessibility; (b) Availability; (c) Variety.

Interview Findings

The interview instrument has the following four main questions.

(a) What are the tool's favorable characteristics?

Table 1 shows 26.7% of the students said that the fast and easy were the most favorable characteristics of the tool, and 24.1% of the students indicated "accurate information and fast access". This indicates that fast access is the tool's most favorable characteristic to students, followed by easy and accurate information. The researchers referred this finding to the natural behavior of young adults who are inclined towards speed and finishing up their school work quickly.

Table 1: The Favorable Characteristics of the Tool

Characteristics	Frequency	Percent
Fast	13	11.2
Easy	14	12.1
Fast + Easy	31	26.7
Accurate information + Fast	28	24.1
Linked to science subject	14	12.1
Acquire as needed	12	10.3
Other	4	3.4
Total	116	100.0

(b) What are the tool's unfavorable characteristics?

Table 2 shows that 59.5% of the students were not in favour of the tool's characteristic of involving only science subject. The researchers have reasons to believe that this is a very good indication to support the accessibility satisfaction of the tool. However, only 15.5% of the students have shown unfavorable characteristic of having inadequate information. A small percentage (6%) of the students agreed that in general the tool is good; this is evident in supporting the accessibility satisfaction of the tool.

Table 2: The Unfavorable Characteristics of the Tool

Characteristics	Frequency	Percent
Everything good	7	6.0
Having only science subject	69	59.5
Difficult to use	10	8.6
Inadequate information	18	15.5
Technical problem	12	10.3
Total	116	100.0

(c) What do you suggest more characteristics to be added to the tool?

Table 3 illustrates that 97.4% of the students suggested involving all subjects into the tool. The researchers believed that this is a good evident indicating that students were satisfied accessing to the tool. Only 2.6% of the students suggested extra information, plus adding all subjects to the tool. This suggests that the variability of the tool is very important for the student to be satisfied with it.

Table 3: The Characteristics to be Added

Characteristics	Frequency	Percent
All subjects to be added to the tool	113	97.4
Extra information + All Subjects to be added to the tool	3	2.6
Total	116	100.0

(d) How much evaluation mark out of 10 marks, would you give the tool?

Table 4 illustrates that 88.8% of the students have given the tool mark 8-10 out of 10 marks. This specifies that the students are satisfied accessing the available of the e-resources. Only one student gave the tool 4 out of 10 marks. This clearly indicates that the majority (99%) of the students feel that they benefit from using the tool, reflected by the mark (more that the average point i.e. 5 marks) given by this majority of students.

Table 4: The Tool Evaluation Mark

Mark	Frequency	Percent
4	1	.9
6	3	2.6
7	8	6.9
7.5	1	.9
8	27	23.3
8.5	2	1.7
9	35	30.2
9.5	6	5.2
10	33	28.4
Total	116	100.0

Survey Findings

The survey instrument has 22 questions. Calculating the weighted mean for responses of the statements similar to five-scaled Likert measure to calculation the weighted mean needs to give each response a specific weight reflecting its importance. The responses of each statement take a weight as presented in Table 5.

The above procedure determines to which class the response of each statement belongs to. According to the value of the resulted weighted mean, one can specify the overall response (in mean) of each statement. Table 6 states the criterion.

Table 5: The Weightage Given to the Response

Response	Weight
very disagree	1
disagree	2
average	3
agree	4
very agree	5

Table 6: Overall Responses (In Mean)

Weighted Mean	Overall Response (In Mean)
From 1 to less than 1.8	very disagree
From 1.8 to less than 2.6	disagree
From 2.6 to less than 3.4	average
From 3.4 to less than 4.2	agree
From 4.2 to 5	very agree

To study the importance of each statement the responses are classified as indicated in Table 7. The degree of importance is calculated and the statement is ranked according to its importance.

Table 7 shows that the overall weighted mean is 3.91, which means that the overall response of using ECSUET tool is "agree". The statements in the questionnaire are sorted upon priority of the mean, and from Table 7 the level of students' satisfaction in using the tool is determined.

An e-collaborative selection and use of e-resources tool for information literacy

Table 7: Student's satisfaction of accessibility, availability, and variety of e-resources using ECSUET for science subject

Statement	very disagree	disagree	average	agree	very agree	Mean	Overall response in mean	PRIORITY
Searching ECSUET is easier than buying books.	2	0	10	26	78	4.53	very agree	1
ECSUET is easier than borrowing books.	3	2	9	18	84	4.53	very agree	1
ECSUET supports the E-learning Environment.	1	4	11	26	74	4.45	very agree	3
ECSUET supports the Science curriculum.	2	4	17	21	72	4.35	very agree	4
ECSUET is friendly user.	2	2	16	33	63	4.32	very agree	5
ECSUET is adequate for my assignments.	3	3	18	29	63	4.26	very agree	6
ECSUET helps me to access the school library any time.	3	6	20	29	58	4.15	agree	7
ECSUET saves my time.	1	11	16	32	56	4.13	agree	8
ECSUET saves my efforts.	1	7	24	28	56	4.13	agree	8
ECSUET gives the accurate information that I seek.	3	6	30	27	50	3.99	agree	10
ECSUET helps me to access the school library any where.	7	4	26	28	51	3.97	agree	11
E With ECSUET I don't need anybody's help.	5	9	22	33	47	3.93	agree	12
Searching ECSUET is easier than the Internet.	3	9	27	38	39	3.87	agree	13
ECSUET gives me the opportunity to have equal competition.	6	11	36	24	39	3.68	agree	14
ECSUET helps the teacher to give me the right grade.	5	6	46	28	31	3.64	agree	15
ECSUET helps me improve my portfolio grade.	7	9	44	17	39	3.62	agree	16
ECSUET helps me submit my assignments on time.	9	4	46	26	31	3.57	agree	17
ECSUET helped me to understand the subject.	7	12	35	35	27	3.54	agree	18
ECSUET covers my needs.	2	17	41	31	25	3.52	agree	19
ECSUET helps me improve my academic performance.	6	16	44	27	23	3.39	agree	20
ECSUET encourages me to become more seeker for knowledge.	7	17	38	35	19	3.36	agree	21
ECSUET increases the collaboration between me and my teacher.	16	21	41	20	18	3.03	average	22
Total	101	180	617	611	1043	3.91	agree	

CONCLUSION

In summary, the satisfaction level of using e- resources of the ECSUE tool has been generally satisfied and the study conclude that the tool is well-accepted by the students. The study suggests that the incorporation of e-resources in tools such as ESCUE should take a place, and schools in developing countries need to redefine and address the conceptual framework of the ECSUE tool that collaboratively provides relevant e-resources to support school library's mission in promoting information literacy. Through this system architecture, and real practice scenario of e-resources can play a major role in inculcating information literacy within the e-learning environment.

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