Evaluate wiki technology as e-learning tool from the point view of Al-Baha University students: A pilot study with undergraduate students in both faculties of Science and Education.

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Abstract

Wikis technologies are one of Web 2.0 applications that can be used to improve the learning method and to engage students in learning with others in a collaborative environment. This paper investigates the potential use of wiki technology in Al-Baha University through students' perceptions; the study seeks to answer the main question. How to evaluate the use of wiki technology as e-learning tool from students' perceptions? To answer the main question, students asked to answer four sub-questions represent four main axes related to the use of wiki in learning in general, and the use of wiki in Saudi education in particular. 26 students from two colleges at Al-Baha University, KSA participated in this study. Random sampling method used to select the sample members. The data collected through the interviewer-administered questionnaire, this method designed and developed by the authors. The data were analysed by SPSS programme with descriptive explanation. The findings inducted to that, students tend to study via the new learning method which is the wiki system and they prefer to learn collaboratively. Moreover, the findings showed that Al-Baha University suffers from the weakness of the internet and the unavailability of computers in some classrooms. Students believed that the reason behind this is that Al-Baha University is one of the Saudi emerging universities.

Keywords: wiki; interviewer-administered questionnaires; perceptions; collaboration; Knowledge.

1. Introduction:

Web 2.0 technologies have a significant influence on the higher education sector as well on libraries around the world (Arif & Mahmood, 2010). The term 'Web 2.0' was officially coined in 2004 by Dale Dougherty, a vice-president of O'Reilly Media Inc., during a team discussion on a potential future conference about the web (Anderson, 2007).

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There are a number of web-based services and applications that demonstrate the fundamentals of the Web 2.0 concept. For example, the best known are YouTube, Blogs, Wikis and Social Networking sites like MySpace and Facebook (Reynolds, 2007). In the field of education, for example, these applications may utilise both learners and teachers to achieve the aims and objectives of education; building knowledge, developing learning skills, enhancing collaborative learning skills as well. Wiki is one of these applications that can achieve some of the educational requirements. Example educational uses include: Wikis can be used in class projects, and are particularly suited to the incremental accretion of knowledge by a group, or the production of collaboratively edited material, including material documenting group projects. Students can flag areas of the Wiki that need attention, and provide feedback on each other's writing (Franklin & Consulting, 2007). The current pilot study will concentrate on the point view of students to identify their perceptions of Wiki technology in learning.

2. The Current use of Wiki in Saudi Education

The use of Wiki in Saudi education considered relatively weak. Moreover, there are no more than teen researches carried out in the field of use Wikis in education. Most of the attention in the using e-learning in the Saudi educations institutions concentrates on the use of distance learning through some commercial programmes such as Jusur and Tadarus. Thereby, the current status of the use of wikis in the Saudi education will be a strong motivation for applying of this study and try to take advantage of the results. The university of Al-Baha is example of the Saudi university which will this study take place in. The University of Al-Baha was established in 2006 (The MOHE Portal, 2011), it has rented some buildings in order to accommodate the huge number of students; the problem here is that most of these building are not suitable for the teaching process. They were designed as houses, not as facilities for the University: libraries, laboratories, classroom, etc. Since 2006 until now in 2011 the University of Al-Baha still uses these buildings. This issue is also found in all of the new universities in the Kingdom of Saudi Arabia (KSA).

Furthermore, there are some obstacles facing the learning at the University related to the unsuitability of classrooms for learning in terms of classroom equipment, attendance in the

classroom and the increasing numbers of students annually. According to Albalawi (2007, p. 7), "The challenge to Saudi universities to meet the educational needs of a growing student population who desire to attend universities increases from year to year". Moreover, this research can be useful for students to encourage them to research and build knowledge through cooperative learning.

This pilot study seeks to identify students point views in the term of apply wiki technology in learning at Al-Baha Universities, and the desire of the MOHE to improve the level of performance for both faculty members and students by using the interment.

3. The Main Educational Characteristics of Wiki and its Role in Education.

A wiki characterised as easily in most of its properties and aspects. According to Neumann and Hood (2009) Ebersbach *et al*,(2008) Wiki allows quick and easy to change of the content of the page, each page easily can save information, viewed, edited, and commented on by other people through a web browser. In the field of education "wikis enable instructors to create interactive activities for their students, and to present course information such as resources, external links, project information, and frequently asked questions" Schwartz *et al* (2003, p. 2). Furthermore, through using wikis as a collaborative learning, it can be ideal way for building communities of practice by establishing a collective repository of expertise in a subject area which is refined over time by the contributions and problem-solving of interested individuals (Jones, 2003). However, Wikis allows users to participate in collaboratively building resources (Parker and Chao, 2007). Moreover, wikis in the classroom cause students to work as an editorial team and can help students overcome shyness or uncertainty about their opinions. Wiki also can help students overcome shyness or uncertainty about their views (Ozok and Zaphiris 2010). Franklin and Harmelen (2007) pointed out the use of Wiki for both teachers and students for the creation of annotated reading lists, incremental accretion of knowledge, and to documenting group projects. Wikis can be used by teachers to supply scaffolding for writing activities then provide feedback on student generated content, provide feedback on each other's writing as well. Wikis are increasingly used in education. While the use of wiki as an educational method still comparatively new idea to the public (Wang and Beasley, 2008). Therefore, "Wikis have become an integral part of education, especially in

secondary and higher education" Ozok and Zaphiris (2010, P. 472). Therefor, "Wikis have been used in educational contexts to facilitate asynchronous communication and online group collaboration" Pegler et al (2007, p .144).

4. Population

Researcher believes that a research population is a large group of individuals or items. However, because it is too expensive and consuming of the research time and for the reason of the large sizes of populations which are about 10,000 male students, researchers cannot investigate every individual in the population. According to Castillo (2009) a research population is also known as a well-defined collection of individuals or objects known to have similar characteristics. All individuals or objects within a certain population usually have a common, binding characteristic or trait. Usually, the description of the population and the common binding characteristic of its members are the same. Research population in the present study will be the all of male students in the University of Al-Baha who are studying regularly for the academic year 2012. According to Director of Al-Baha University Dr: Saad bin Mohammed Al Hariqi (2011) the number of students in the University of Al-Baha reached to approximately 17,000 students in the academic year 2011. This number including male and female students in 12 Schools which are: Engineering, Education, Medicine, Science, medical sciences, Community, Art and Science in Al-Mandak, Science and Literature in Al-Mandak, science and Literature in Beljurashi, Finance and Administrative, College of Arts and Humanities (Al-Baha University Website, 2011).

5. Sample

A set of male students whom studying in current academic year 2011 in the University of Al-Baha chosen as sample members to curry out the pilot study. The sample referred to as a convenience sample. The selection of this type of sampling is referring to that the sample members are ease to access and to deal with. Cohen et al, (2007) indicates that researchers mainly select the sample from those to whom they have easy access.

6. Pilot Study

The term 'pilot study' refers to mini versions of a full-scale study also called 'feasibility' studies, as well as the specific pre-testing of a particular research tool such as a questionnaire or interview schedule (Teijlingen and hundley, 2001) .Conducting a pilot study does not guarantee success, but it does increase its likelihood. During a pilot study, data collection instruments and procedures are tested and revised (Silber and Foshay, 2009). According to Cooper and Schindler (1998) pilot studies are conduct to detect weaknesses in design and instrumentation and provide proxy data for a selection of a probability sample. Furthermore, during pilot study there is a new aspects regard to the research researcher may not be expected to appear.

In the present study a piloting will be applied in Al-Baha University with convenience sample of the study population. Population and sample information will be explained in depth in the following sections. It will be prepared a schedule with regard to the plan of implementation the pilot study including time period which will take two weeks. Moreover, set of questions chosen to collect data from the sample during the pilot method; questionnaire

7. Procedure and Participants

25 students were asked to participate in this pilot study in two college of Al-Baha University, College of science, and College of Education. The implementation period was two weeks. Before and during the piloting the requirements of pilot study prepared. Data collected from sample members through one of the questionnaire types which called 'interviewer-administered questionnaire', to collect largest amount of data with regard to the key aspects of the main study. These questionnaires were directed to all targeted sample under study. This type of questionnaire according to (Kaden, 2006, p 128) "will have skip patterns that jump a respondent from one section of the questionnaire to another based on participants responses". Moreover, interviewer-administered questionnaire allows participants to ask about any question is not clear or need more explanation. Furthermore, questionnaire should be designed to make reading questions and filling in responses easy (Thornhill, et al, 2009, p. 287). Before start piloting, sample given a brief introduction related to the aims of using wiki in education, and how the pilot study will be conducted. After the

meeting the participants were asked to read and to sign in the consent form for everyone who agrees to participate in the study. At the end of pilot study the data were analysed by a computer using (SPSS) program.

8. Research Method

Interviewer-administered questionnaire was designed for the pilot study purposes, the method included four axes. This questionnaire attempted to determine the extent of the knowledge of Al-Baha University students with regard to Wiki technology, and the extent of their acceptance of learning by using an alternative means for a way of learning traditional (lecture). Through exploring the views of a sample of Al-Baha University students in accordance with the following axes:

- Determine the extent of students' knowledge of computer and Internet skills;
- Identify the extent of students' awareness of wiki technology;
- The possibility of using another learning style, from students' point view, and
- The current role of Al-Baha University toward E-learning.

8.1 Determine The Extent of Students' Knowledge of Computer and Internet Skills.

The purpose of this axis is to find out the extent of students' skills of using the computer and the Internet to obtain an indicator prior of their ability of use wiki technology in learning. As the use of wikis requires of some skills such as editing, research on the web pages and other skills that will be addressed in the questionnaire.

8.2 Identify The Extent of Students' Awareness of Wiki Technology.

This axis contains a series of questions about the wiki technology. In terms of the concept of wiki, the use of wikis in general, the use of wikis in learning and some of the questions related to the wiki. Through the students' answers to these questions can be accessed to see how students are familiar with this technique.

8.3 The Possibility of Using Another learning Style from Students' Point View.

This axis will consist of a series questions that focus on knowledge and perceptions of students on the use of e-learning as an alternative way as a substitute for traditional learning. In order to determine the accepted of students to learn through an alternative method of that which currently used (Lecture).

8.4 The Current Role of Al-Baha University toward E-learning.

This axis will focus on what is the role of Al-Baha University towards students in the field of e-learning. Through some points that will be addressed in this axis such as: providing training courses in the area of e-learning, support and encouragement students and provide the technical potential for computer labs and Internet and computers. The result of this part of questionnaire may provide clear evidences of the possibility of learning through Wiki.

9. Implementation

The researcher designed a schedule includes the names of students and the date of meeting. Each student choose the suitable time for him to conduct the interview, the researcher asked the officials in both the College of Science and the College of Education to provide an appropriate place to meet the sample member. In the meeting day, each one of the sample was given the consent form to sign his agreement of conducting the interview. As it mentioned above the instrument was interviewer- administrated questionnaire, the researcher conducted the interview through asking the questions and the sample answering, the researcher then recorded the response within a questionnaire. This process carried out with each one of sample member and at the end of piloting, the researcher collected the questionnaire in order to find out the result the analysis of the data.

10. Ethical Considerations

Informed consent distributed to each participant in order to obtain their agreement to participate in this questionnaire. To make the participants feel freer to participate, the researcher described their right to participate or withdrawal at any time without any

conditions or restrictions or negative impact on their academic study. Participants informed that their participation would be voluntary without coercion.

The researcher pointed out the objectives of the questionnaire and steps to conducting. Finally the researcher mentioned that all data that will be obtained from the sample will be used for the purpose of the study.

11. Results

Data collected were analysed for each sub-question of the study axes, using frequency counts and percentages and the findings were presented by use of descriptive statistics.

11.1 First axis: Students' possibility to use a computer/laptop.

Students' responses to the questions of the first axis indicate that all of students have the possibility of using the computer/laptop regardless of whether they own a computer/laptop or not. 84% of the students have a computer; the others have access to computers elsewhere. The final analysis of this axis indicates to that all of the samples have the possibility to use the computer/laptop whether they own a computer or they can go to a place where there are computers. This result is a positive indicator of the ability of the students to access the wiki.

Figure 1: Students' possibility to use a computer/laptop.

11.2 Second Axis: Students' Possibility to Use the Internet.

The second axis aims to determine the students' possibility of using the Internet through two essential aspects: the students' internet connection and their practical experience of the internet. The responses indicated that 60% of the students connect to the internet via an internet café, while 24% of the respondents access the internet through the university's internet facility, and the minority respondents (16%) can connect the Internet in other ways. This finding indicates that students have the ability to find a place to connect the internet such that mentioned above, but we need to determine their level of the use of the Internet. The respondents identify their level of the internet knowledge: Excellent or Average. Significant difference found between the samples with regard to them level of the Internet experience. 76% which is 19 students of 25 students have excellent level of the Internet, while only 6 students their level were average 24%. The previous percentage in this aspect is a clear sign of that most of the students easily can use the Internet. However, from the analysis of these two aspects indicate that the majority of students can connect to the internet which is the important requirement to access the wiki pages.
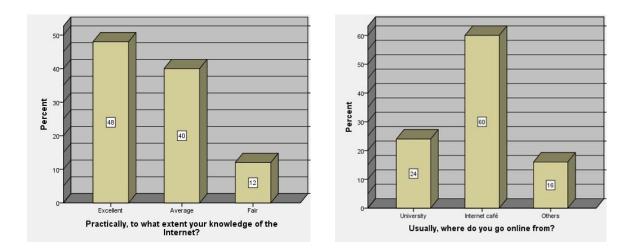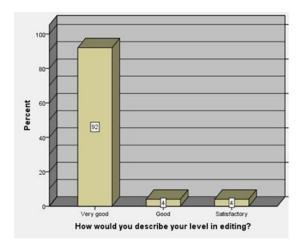

Figure 2: Students' Possibility to Use the Internet.

11.3 Third Axis: The Extent of students' knowledge of wiki.

To find out students' knowledge of wiki, the third axis consists of four questions concerning the main characteristics of wiki including text editing, communication, learning style and content creation. The vast majority of students (up to 92%) indicated that they have

a very good level of skill in editing. Only one student (4%) has a good level in editing and one student with a satisfactory level. With regard to the type of learning students identify one of two learning types: collaborative learning or individual learning. There is not a dominant preference; 52% prefer to learn collaboratively and 48% prefer to learn individually.
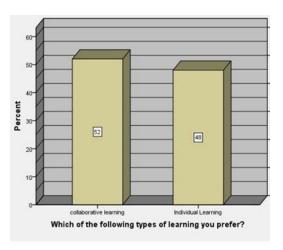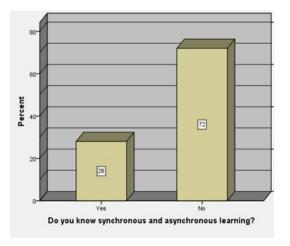

Figure 3: First part of students' knowledge of wiki.

Another characteristic of wiki is the communication between users; students were asked if they know the meaning of the synchronous and asynchronous learning. The majority of students seem do not know the meaning of these two concepts, only 7 students (28%) indicate that they know the meaning of synchronous and asynchronous learning. The final characteristic of wiki in this axis is "content creation". 5 respondents (20%) believe that websites that enable the user to create content is useful. Importantly, 40% of students do you perceive the value of "content creation" websites.
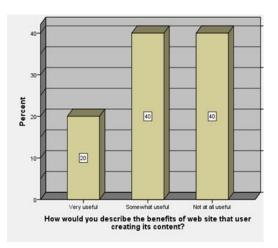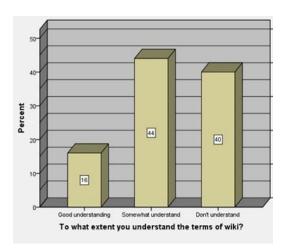
Figure 4: Second part of students' knowledge of wiki.

With regard to understanding the concept of wiki, students seem to consider Wikipedia as synonymous with wiki because Wikipedia is the most famous wiki and many students use it as a resource. Figure 5 shows the responses of student in the terms of wiki, just 4 students understanding the concept of wiki, while 11 students 44% somewhat understanding the meaning of wiki and almost the same number of students who do not understand the concept of wiki10 students (40%). This indicates that the wiki-concept is unfamiliar, with few students actually understanding this concept.
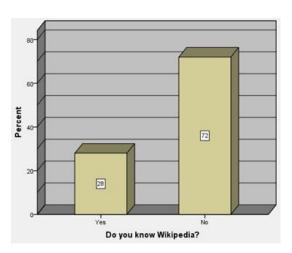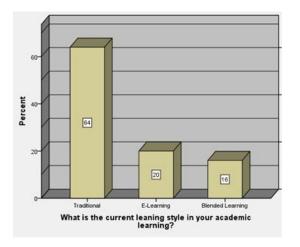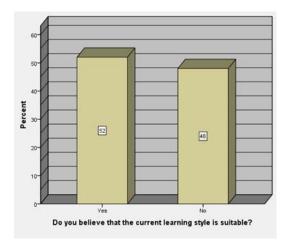

Figure 5: third part of students' knowledge of wiki.

Overall, it can be said that the respondents related to this axis "the main characteristics of wiki" indicated that students have a good knowledge of the use of wiki in the terms of editing the comments. In addition, about half of them work collaboratively via wiki. With regard to the meaning of communication ways between wiki users, students indicated that they do not know exactly the meaning of synchronous and asynchronous ways. The majority of them believe that the websites which the users contribute to build its content is somewhat useful. The negative indicators in this axis indicate a lack of student experience of wiki and a lack of knowledge characteristics.

11.4 Forth axis: The desire of students to learn via the wiki technology.

The fourth axis is designed to find out the students' preferred methods of learning. The students indicate the popularity of learning via traditional learning style (the lecture) (64%), E-Learning type (20%) and blended learning (16%). When asked whether the current learning style is suitable or not, 52% say yes and 48% say no.
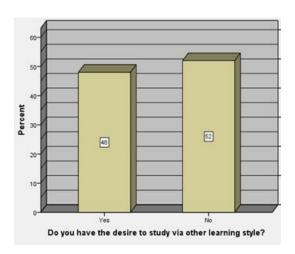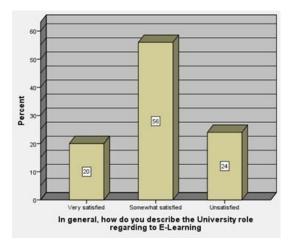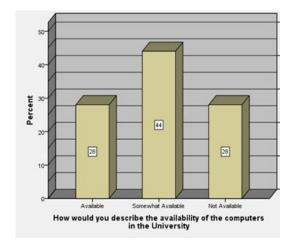
Figure 6: The Desire of Students to Learn via Wiki Technology.

11.5 Fifth Axis: Evaluate The Role of Al-Baha University with Regard to E-Learning.

The fifth axis gives an indication of the students' perceptions of the role of Al-Baha University with regard to E-Learning. Through students' responses it is clear that the students do not feel the University has an active role with regard to e-learning in terms of the following elements: computer availability and internet accessibility. With regard to the availability of the computers in the University's facilities such as classrooms, computer laboratories, library, 7 students (28%) said they can use the University computer easily,11 students (44%) agree with that the University computers are somewhat available and 7 students (28%) think is that it is not possible to use the University computers. With regard to accessibility of the internet in the University's facilities, 6 students (24%) said it is available with easy connection, 4 students (16%) agree with that the Internet in the University is somewhat available but most, 15 students (60%), believe that it is not possible to connect to the internet in the University. The situation is reflected in the students' satisfaction with the university's role regarding to E-Learning, 5 students (20%) said they are very satisfied, while 14 students (56%) were somewhat satisfied and 6 students (24%) were not satisfied.
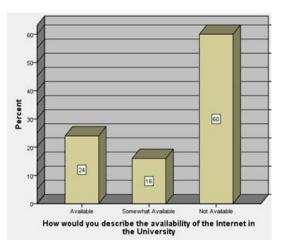
Figure 7: Evaluate The Role of Al-Baha University with Regard to E-Learning.

22. Conclusion:

This study came as a try to determine the possibility of participants to learn through wiki system as a learning tool in Al-Baha University from their perceptions of wiki. So, this is the first study in Al-Baha University applied to determine the possibility of using wiki in learning. Al-Baha University is one of the emergent universities in Saudi Arabia. Numerous aspects were behind this study, the learning style in this university is the traditional learning (Lecture method) and a result of some issues that negatively affect on educational environment in A-Baha University such as the steady rise in the number of students, the geographical environment of the city of Al-Baha and its impact on the discipline of students'

attendance at the university. However, it was necessary that there be solutions to these factors.

As a result of the wiki is a new technology among Al-Baha University students, researcher used a suitable instrument to collect the data. This method is interview-administered questionnaire which allowed researcher to describe the questions related to the wiki in terms of the use and the characteristics. The interview-administered questionnaire was used in this study; 26 students were chosen with through convenience selection from two colleges: college of education and college of science at Al-Baha University. The questionnaire was developed after a wide review of literature and with assistance of 11 academic staff from Al-Baha University. Data w analysed using frequency count and percentage.

However, the study identifies that a significant number do not understand the full concepts behind wiki-based learning and synchronicity. The extent of their ability to access both the internet and the computer as the main requirements for the use of wiki in learning is also an issue. The findings indicated that students have good personal access the internet. With regard to Al-Baha University, students feel that the University does not have the required service for the use of the internet.

The study attempted to find out the perceptions of undergraduate students in Al-Baha University, KSA toward using wiki technology in learning. Based on the findings above although the majority of students do not have enough experience on wiki technology, students would prefer to use wiki in learning. This perception is due to the characteristics of wiki in terms of the learning style and because of the way that students deal with each other.

23. Acknowledgment

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