The Impact and Issues of E-Learning with Saudi Arabian Universities and Schools a Systematic Literature Evaluation

Sajithunisa Hussain, Rubina Khan

Abstract: E-Learning plays a significant part in the educational field. Many Arab institutions follow the style of E-Learning under field education. Many papers have been showed to understand the role of E-Learning. This paper focuses on Saudi Arabian Schools and Universities regarding their development in E-Learning and the issues faced in the institutions while experiencing it. It is based on Systematic literature review of E-Learning research by collecting and reviewing the studies published from the year 2018 till 2010 to know the situation of E-Learning inside Saudi Arabian schools as well as Universities. This Paper identified around 45 studies which addressed E-Learning. It reflects that the E-Learning has shown a massive development in the past 2 years. The paper covered the research themes such as E-Learning, Students, Schools, Universities and Kingdom of Saudi Arabia (KSA). It also states the situation in E-Learning under educational sectors of KSA and their issues faced among the people which can be focused and concluded as a part of future research.

Keywords: E-Learning, KSA, University, School, Students, education.

I. INTRODUCTION

Around the globe Saudi Arabia is the prime most nation spending in the field of education. As per the budget in 2014, national education and health care were at the priority. Education takes an enormous amount of the budget at twenty five percent of entire spending, thought to be the best among the planet. [1] The rising technologies in the area of education is cooperative E-Learning, that achieves a major role within the rising range of scholars listed at universities, particularly in Saudi Arabia. [2]

Sajithunisa Hussain*, Computer Department, Community College, Imam Abdul Rahman Bin Faisal University, Dammam, Kingdom of Saudi Arabia. Email: sajithunisa@iau.edu.sa

Rubina Khan, Computer Department, Community College, Imam Abdul Rahman Bin Faisal University, Dammam, Kingdom of Saudi Arabia. Email: rlkhan@iau.edu.sa

Around twenty five percent of budget in the government of Saudi Arabia for 2015 is devoted to the division of education (over £36 billion), that adds to the huge money being driven up into the academic field to the execution of technologies within the school course and rising Information and Communications Technology facilities. [3].

Saudi Arabian educationalists showed a rising realization in the recent years of technologies regarding the computer usage and the Internet, within the development of EFL (English as a Foreign Language) teaching and learning. [4] In KSA, the mandatory gender-isolation by spiritual, public and ethnic heritage has highly affected the success of females within the higher education centres. Hence on-line Learning could be smart plan to get rid of such obstacles [5] Moreover, there was no effort to review the studies in a systematic way, in order to give a clear view about the E-Learning in academics for students in the field of Universities and schools of Saudi Arabia. Therefore, this paper gives a Systematic Literature review to discover the theory of E-Learning. It thoroughly gathers, examines and produces all the recent studies on E-Learning inside KSA (Kingdom of Saudi Arabia). The paper aims to project three research questions, responding to these questions will allow the user to know the situation of E-Learning under the educational institutes of KSA.

RQ1: How is the practice of E-learning within the school students of KSA?

RQ2: How is the E-learning usage within the University students of KSA?

RQ3: What are the problems faced under E-learning within the students of schools and universities of Saudi Arabia?

Hereby Section 2 provides background, which illustrates about the definitions of E-Learning, Section 3 delivers about the review method which includes the included and Excluded data, searching criteria of databases, study selection processing, Section 4 describes about the Data extraction, category of Publications and classification of Years for each paper. The final section 5 ends with conclusion and discussion.

II. BACKGROUND

Table I. Definitions of E-Learning

E-Learning Definition	References

The term "E-Learning" is commonly used interchangeably with alternative terms like "online Learning" and "distance Learning". E-Learning is outlined as "Instruction carried on electronic device that is supposed to support the learning"	[6]
E-Learning could be a resolution of software to comfort the education system.	[7]
E-Learning refers to the usage in recent multimedia techniques and www to boost the standard of learning by easing the access to the resources and services in addition to the distant exchanges and collaboration''	[8]
E-Learning is a method in which understanding and explaining are communicated by the exploration of all kinds of electronic resources, information and communication convey to form E-Learning systems that coordinate to impart E-Learning.	[9]

III. REVIEW METHOD

3.1 Addition and Omission Criteria

The cause of using this addition and omission criteria is to confirm which data was added and deleted. The articles were from the journals, conferences, thesis and book chapters in the English language. The studies were under the period of 2010-2018

Table II. Inclusion and exclusion Criteria.

Addition	Omission
Complete- script	Partial studies
Available in a period (2010–2018)	Non-English
	Outside the period of year
Manuscript written in English language	Duplicated studies
Area of E-Learning within Saudi Arabia.	

3.2 Search Strategy

Many Online Databases were used to collect the relevant data. These Papers were referred from the following databases such as ScienceDirect, Scopus, Springer, IEEE Explorer, Pro Quest. These Databases information was effective and provided high impact factor. The following keywords were used to search the papers based on their Research questions. The keywords are as follows E-Learning, school, students, Universities, Saudi Arabia.

3.3 Study Selection Process

As described in Fig 1. by using outlined keywords, results of the early search found sixty studies. By using software called Mendeley duplicated studies were excluded then fifty remained. The ultimate set of the primary studies with quality assessment criteria were forty-five studies finally.
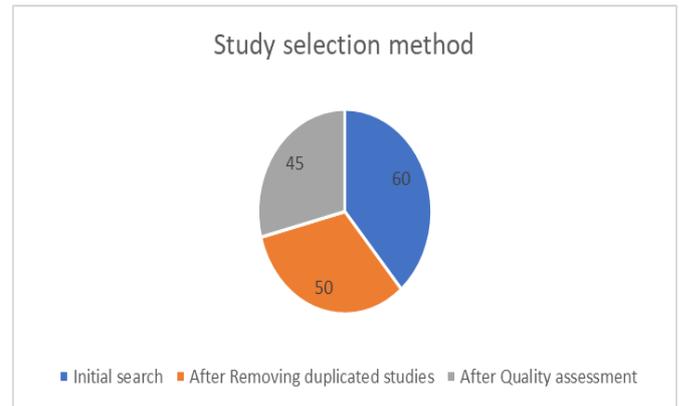

Fig 1. Quality Analysis

IV. DATA EXCLUSION AND SYNTHESIS

In this level, to gather all the information perfectly a data extraction form is created. This method was done by understanding each study keenly and mining the data by using a tool called Mendeley and Microsoft Excel. This framework was presented to combine various elements such as [10]

Table III. Framework for data extraction

Mined Data	Description
Study title	The title of the paper
Authors	List of all the Author names
Publishing Year	The year in which the paper is published
Source of Publication	Journals, conferences, Thesis and Book chapters
Research Theme	Usability in E-Learning and their issues
Methodology	Category of Method followed, Quantitative, qualitative or mixed method, Systematic Literature review.

4.1 Categories of Publications

As described in the Fig 2, many of the publications were trustworthy as the importance of the evaluation increased. The studies confirmed the high value that provides the exact data on E-Learning. The major classification of the publication includes journals with 30 studies, 7 conferences, 6 thesis and the remaining were the 2 Book chapters.
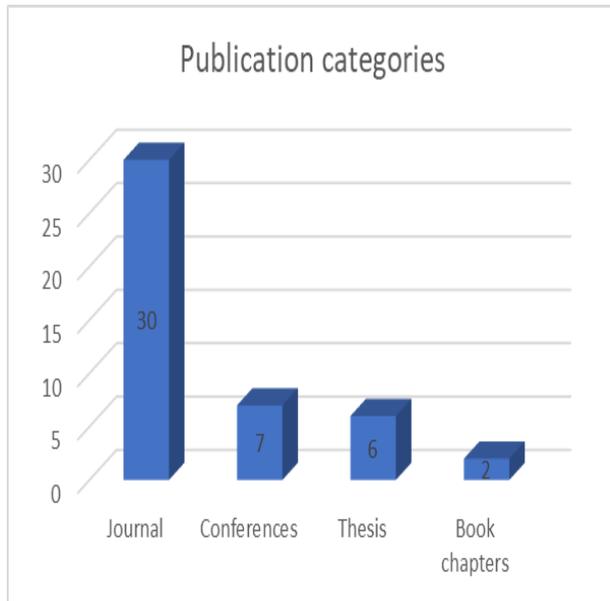
Fig 2. Categories of Publications Searched

4.2 Classification of Years

The time selected for this review is from the year 2010 to 2018. The classification of the years is shown in Fig 3. According to the studies of E-learning, it's been gradually improved in the year starting from 2010 to 2018. The higher level of the publication was noted in the year 2017 and 2018 for about 7studies.
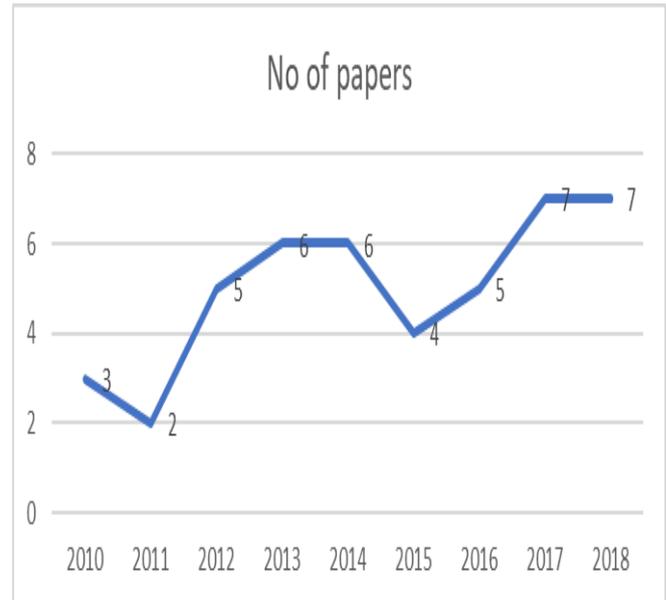
Fig 3. Number of papers according to years

V. RESEARCH QUESTIONS RESULTS

Table- IV. RQ1: How is the practice of E-learning with the school students of KSA?

No	References	Technology	Description
1	[11]	E-Learning System using web-based system.	Al Bayan Model School in the City of Jeddah's grade 7 students were delighted in experiencing the system under web which gave a highest mean for complete analysis, as a result they have started to use a new issue and the small students wish to direct new things. The satisfaction level regarding the usage of web-based system has been usually fulfilled and the conclusion of the study says that the system is accepted by the students.
2	[12]	Smart boards and Electronic training	In Intermediate schools in KSA, Electronic pen is used by the teacher while working on the board and it has the possibility to record all the activities. A website called http://www.ebfet.org/index.html , is used to organize the training rooms, that provides the live broadcasting before the final exam to permit collaborative communication with the student's team, as a method to reinforce their learning and to solve their inquiries. We encourage our students to create their own You tube channels which helps them to send all the activities and lessons which makes them motivated.
3	[13]	Information Communication and Technology based Onion Design	In the secondary schools of KSA, the outcomes showed that Information and Communication Technology show a significant tool in enhancing performance, communication, learning expertise and learning results. [13]
4	[14]	EFL Learners (English as a foreign language)	The Responses of high schools in KSA shows that students in EFL learners are so good regarding the usage of computers and internet, they said the classrooms with the computers enhanced their learning. The participants displayed a high score in usage of computers while learning English, the male scores were 3.3667 and female scores were 3.6056 out of 5.

Table V. RQ2: How is the E-learning usage within the University students of KSA?

No	References	Technology	Description
1	[15]	Blackboard systems	The University of Northern Border in Saudi Arabia is using many on-line as well as offline automatic softwares & Blackboard LMS (Learning Management System) in varied deanships for student's self-learning sections and colleges.
2	[16]	LMS	The Technical atmosphere in the Saudi Electronic University mentions that the learner is the center of the complete method in which it consists of several technologies concerned like (LMS) which includes Black board systems, worldwide available videos and mails. It can be watched from various browsers and several OS.
3	[17]	Systems of E-Learning	In the University of Qassim and University of King Abdualaziz the survey was distributed for the pupils to check the systems of E-Learning. 8,178 respondents verified that the E-learning helps to find information on time, which solves the matter of time in the traditional systems. 9,178 respondents, said that the E-learning delivers a summary in comparison with the other systems which provides lot of information. 4, 220 respondents of them confirmed that E-Learning system delivers enough data for every aim and every learner.
4	[18]	E-Learning and Internet	In the University of Saudi Electronic many of the classes are delivered through E-Learning, learning through distance and blended learning, which provides the maintainable E-Learning platform throughout the country. In Saudi Arabia the users for internet were around 21.6 million in the year 2015. Mobile users were greater than 53 million which were connected to their services according to the latest study in CITC (Communications and Information Technology Commission) which made an optimistic effect under the ICT industry (Information and Communications Technology).
5	[19]	Digital Library	The main reason to create Digital Library in KSA is to support the e-learning under the educational field and it is prevalent E-Library in the Arab world , which includes digital books of about 310,000 and gets the support from 300 worldwide publishers, It provides the services from the Library portal which satisfies the needs of the students and staffs of KSA.

Table 6. RQ3: What are the problems faced under the E-learning within the students of schools and universities of Saudi Arabia?

No	References	Variable focused	Description
1	[20]	Need of Focusing on E-Learning growth	The university can enhance the acceptance of the students in E-Learning by giving the training for the students on internet, by creating the web access points within the university and by giving them the technical support. Few students showed the demand in electronic usage, so care should be given to those teams to build every effort which satisfy their needs.
2	[21]	Barriers affecting the usage of computer tools in learning English.	Equipment, motivation and talent are the 3 barriers that were identified which affected Saudi Arabian students The values of 1st 2 barriers, equipment and motivation, represents the equivalent level (equipment 2.5222, motivation 2.2750). The outcomes exposed the lack of information and experience regarding the usage of computer tools. When compared to other barriers the talent affected the students more.

3	[22]	Usage of computer technologies and Difficulties that affects the attitudes of students	Regarding the practice of technology in PC towards learning the English, when compared to male, female students displayed a high and positive attitude. The barriers found by the participants were talent, equipment, and motivation.
4	[23]	Lack of Implementation in ICT	The ICT operations in Saudi schools: Need of ICT rules and plans, Need of perfect foundation and entree to Information and Communications Technology resources, Need of position in management Need of teacher's role Need of workers in school for training; Need of support in technical and maintenance, Undesirable perspective, trust and conduct in the direction of implementing ICT.
5	[24]	Security issues	Many of the safety issues in E-Learning are same as www. Loads of task is done on the university's infrastructure and with the e-contents, however security problems are considered seriously, problems like moral understanding implementation, plagiarism, breach of secrecy, destruction, stealing, and observing into the cyberspace, personal integrity and accountability.
6	[25]	Barrier of E-Learning	Princess Nourah Bint Abdulrahman University (PNU) The survey was distributed for the students and faculties. In female students, the greatest perceived barrier to e-learning was the need of collaboration between universities in terms of the exchange of e-learning experiences (M = 4.16). The general perception is that the students require more discipline to succeed in an electronically connected course than in offline course" (M = 4.81).
7	[26]	Slow progress of E-Learning.	The slow growth in E-Learning under the Universities inside the country means that there is no good access to technologies and the channels of communication which are much needed for E-learning that faces different software, hardware and connection problems. 60 % of the people believe that the main issue in the goal of online learning growth is the need of infrastructure.

VI. DISCUSSION AND CONCLUSION

From the overall study, the researcher compared the usage of online learning in the Schools and Universities in KSA and their issues in E-Learning which are the essentials to address the issue. From the overall paper we can come to know that the E-Learning facilities are provided in many places although the need of few E-learning features and issues remain.

Also, in some of the institutions the practices are currently developing by focusing on the training programs. Care should be taken to increase and enhance the facilities where the features are needed, so that the E-Learning can be completed in the country.

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AUTHORS PROFILE

Sajithunisa Hussain is working as a Lecturer in Computer Department, Community College in Imam Abdulrahman Bin Faisal University, Saudi Arabia since last 4 years of total 9 years of experience and University rank holder in master's degree. She has been pursuing her doctorate in the field of E-Learning and currently she is a member in Program Development Committee in the college. She is a member of IAENG organization. Her research domain includes the comparison of Elearning in Rural and Urban areas.
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Rubina Liyakat Khan is working as a Lecturer in Computer Department, Community College in Imam Abdulrahman Bin Faisal University, Saudi Arabia since last 5 years of total 11 years of experience. She has completed her doctorate recently with research domain in Software Performance and Analogy Formation and currently she is the Vice-Director of Quality Unit of the Computer Department, a member in Program Development Committee, Coordinator of Quality and Academic Accreditation Unit in the college. She is a member of IAENG organization. Her research domain includes, Knowledge representation, Search Engine Optimization, Quality Management in Higher Education, Measuring the Learning outcomes, Community Service, E-Learning and developing new academic programs as per the labor market need.