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Effectiveness of e-learning on academic performance of intermediate students of Jazan University of Saudi Arabia

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Abstract---The research proposal is based on the research topic "Effectiveness of e-learning on the academic performance of Intermediate Students of Jazan University of Saudi Arabia". This field has attracted many scholars and learning institutions. The research questions supporting the research have been raised to strengthen the importance of the research. The research question emphasizes the effectiveness of electronic resources on the academic and learning environment. To help answer the research topic, the goals have been clearly outlined in terms of objectives.

Keywords---e-learning, academic performance, effectiveness, academic achievement.

Introduction

The Internet has become the most important tool in the teaching environment. The computer and information technology supported by the Internet connection became the second library (Schweitzer, 2008). The library created through the growing Internet not only provides learners with opportunities to acquire more knowledge, but also provides them with self-directed skills. This shows that the connection between the Internet and computers continues to contribute to the development of e-learning or so-called computer-assisted learning (Kovel-Jarboe, 2001).

Background of the study and statement of the problem

Electronic resources are described as online learning materials, including Internet-based resources for acquiring knowledge materials (Waldman, 2003). By using Internet-based or e-learning resources, learners can browse historical

changes related to the fixed library. Initially, learners have been facing geographic barriers, but the development of electronic resources has become an effective means of acquiring learning resources worldwide (Falk, 2003; Lee, 2001). Many scholars who have studied the impact of the lack of free access to learning resources have proved that when students experience inefficiency in resource supply, their abilities will decline (Karas & Green, 2007).

Although many studies have been carried out to study the role of technology in learning, limited research has studied the impact of electronic resources on learner abilities (Lee, 2008). In addition, current research needs to study the final results of using electronic resources in learning institutions and their ability to promote professionalization among learners and teachers (Lynch, 1995). In the development of the education sector around the world, the use of the Internet and information technology is increasing, and the interest in the use of technology continues to see a wide range of demand for electronic resources (Langston, 2003). In addition, changes in the educational needs of learners and changes in the role of education continue to drive the demand for effective knowledge acquisition methods (Sexton, 2006; Callinan, 2005).

The history of e-learning can be traced back to the era when the education sector first enhanced learners' participation in distance learning. Many terms have been used in education to describe learning materials and distance learning (Conole & Oliver, 2006). Some of these terms are e-learning, computer-assisted resources and distance learning resources. Although these terms are used differently, they have the same meaning that resources accessed through the Internet and technology can help learners outside of the physical classroom environment (O'Farrell & Bates, 2009; Griffiths, & Brophy, 2005).

According to Langston (2003), electronic resources require a set of learning facilities and applications for learning. These tools and applications utilize online, computer-based virtual classrooms, Internet learning, and digital collaboration (Levine, 2006). All these learning scenarios can be obtained through interactive electronic resources to facilitate knowledge acquisition. A large number of studies have discussed the position of electronic resources in education. In addition, this research aims to examine the effectiveness of electronic resources in an academic environment. In addition, the study aims to evaluate the impact of using these resources on users (Levine, 2007).

Technical education and related tools are add-ons designed to help learners overcome barriers that hinder access to learning resources. Many studies believe that the main obstacle for learners lies in the challenges of printed text (De Vicente, Crawford & Clink, 2004). Research shows that learners are still unable to achieve the expected performance that proves that their cognitive abilities are developed or improved. In addition, despite the use of electronic resources in learning and teaching environments, the gap between low performance and high performance has greatly increased (Swain, 2010).

Significance of the study

Online learning and its newer and more general synonym e-learning are two buzzwords in today's academia. Decision makers compare their new learning methods with traditional learning strategies to be more cost-effective and enable students to better control the learning process because they can decide when, where, and how fast to learn. Greatly many changed information-processing and management in the academic environment has been introduced (Ani and Ahiauzu, 2008). Many e-learning programs have been implemented to help many academic institutions develop training and use e-resources.

Despite these measures, many academic institutions have found some shortcomings in the provision and use of electronic resources. In order to provide solutions to the problems encountered in the development of electronic information resources, many studies have been conducted. However, there is little or no record of any effort made in determining the impact or effect of e-learning on the academic performance of Class-IX school students of Saudi Arab. As the use of e-learning in school education becomes more widespread, research on the impact of this teaching method on student performance becomes more and more important. Therefore, this research will help increase information about the effect of e-learning on academic performance.

Objectives

1. To find out the significant difference in the achievement of students towards e-learning program based on gender after (post-test) the conduction of e-learning programme.
2. To find out the significant difference in the achievement before (pre-test) e-learning programme and achievement after (post-test) e-learning programme among students in general.

Hypotheses

1. There is no significant difference in the achievement of students towards e-learning program based on gender after (post-test) the conduction of e-learning programme.
2. There is no significant difference in the achievement before (pre-test) e-learning programme and achievement after (post-test) e-learning programme among students in general.

Delimitation

1. The study was limited to Saudi Arab only.
2. The study was limited to Class-IX students only.
3. Academic performance was assessed in terms of Achievement test conducted by the researcher only.
4. Assessment was done before and after the conduction of e-learning programme only.

Research design

In this study, a set of pre-test-post-test research designs was used.

Method

In this study, descriptive or normative surveys were used.

Population

In the present study all the Class-IX school students of Saudi Arab was considered as population.

Sampling techniques

Systematic sampling or purposive sampling was done to select 2 schools of Saudi Arab. Random sampling technique was done to select 150 samples from each school. Thus it can be said that random sampling technique was used in the present study to select the 300 actual sample.

Tools

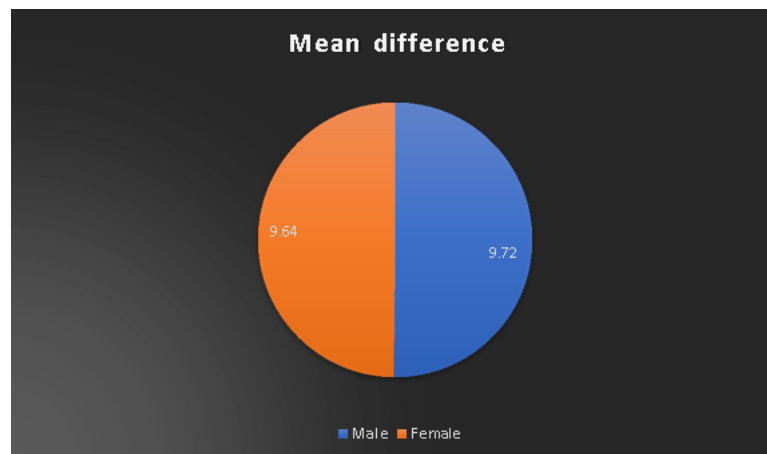
Achievement Scale – An achievement test was used as a tool in the present study to assess the achievement of the Class-IX school students with the use of e-learning programme.

Analysis of the hypothesis:1. There is no significant difference in the achievement of students towards e-learning program based on gender after (post-test) the conduction of e- learning program.

Groups (VARIABLES)	Sample	Mean	t-value
Male	150	9.72	0.146
Female	150	9.64	

*Not significant .05level

Hypothesis 1. FIG. PIE diagram Showing significant difference in the achievement of students towards e-learning program based on gender after the conduction of e-learning programme

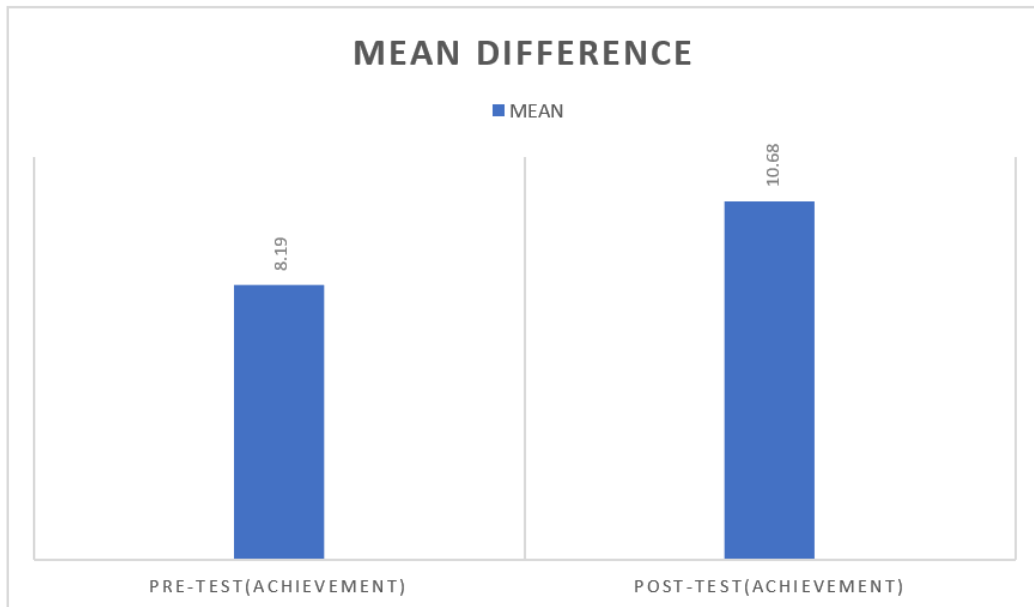


Analysis of the hypothesis:2. There is no significant difference in the achievement before (pre-test) e-learning programme and achievement after (post-test) e-learning programme among students in general.

Groups (VARIABLES)	Sample	Mean	t-value
Pre-test (achievement)	300	8.19	-6.58
Post-test (achievement)	300	10.68	

*Significant at .05 level

Hypothesis 2.FIG. BAR diagram Showing Mean difference in the achievement before (pre-test) e-learning programme and achievement after (post-test) e-learning programme among students in general



Results

1. After testing of the *Hypothesis 1*.

- it was found mean of male is very slightly higher 9.72 than the mean of female 9.64.
- it was found that the t-value is 0.146.
- The p-value is .434 which is below 0.05 significant level. Thus the result is not significant at .05 level.

2. After analysis of *Hypothesis 2*.

- it was found that the mean of Pre-test(achievement) is 8.19 which is lower than the mean of Post-test(achievement) 10.68
- it was found that the t-value is -6.58.
- The p-value is <.00001 which is significant at $p < 0.05$

Findings

1. There is no significant difference in the achievement of students towards e-learning program based on gender after (post-test) the conduction of e-learning programme stands accepted at .05 level of significance.
2. There is no significant difference in the achievement before (pre-test) e-learning programme and achievement after (post-test) e-learning programme among students in general stand rejected at .05 level of significance.

Conclusion

1. It can be concluded that there is no significant difference in the achievement of students towards e-learning program based on gender after

- (post-test) the conduction of e-learning programme
2. It can be concluded that there is a significant difference in the achievement before (pre-test) e-learning programme and achievement after (post-test) e-learning programme among students in general

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