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RESEARCH PAPER

Exploring the Role of Self-Paced E-Learning in Secondary Schools of Rahim Yar Khan

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ABSTRACT

E-learning is a multi-layered learning to make educational learning more effective. The involvement of E-learning has become now crucial. E-learning motivates learners as well as teachers to integrate the latest technology in their classroom environment. This study was conducted with the major objective to explore the role of self-paced E-learning in secondary schools of Rahim Yar Khan, for students of Biology subject at Government Girls High School Trinda Ali Murad of Rahim Yar Khan. Pre-test and Post-test were conducted from both the controlled and experimental groups, to check their initial and after learning levels in the subject of Biology. Controlled group was taught through traditional way whereas experimental group was taught through E-learning method. After one month Post-tests were conducted from both groups and compared by using Mean, SD. The controlled group showed less performance as compared to the experimental group which was given E-learning environment. It is suggested that schools must use this innovative kind of learning in their strategy of teaching.

KEYWORDS E-learning, Secondary Schools, Self-Paced

Introduction

E-learning provides a beneficial environment, e-learning has now become as a problem solver in every field, e-learning is serving as a hypermedia environment and teachers play as an important role model as an assistance in e-learning (Brusilovsky, 2004). In their study they have found that ICT and virtual capability has much effect on e-learning and had a better result, interest in e-learning for university-based teacher preparation. Along with many other processes, educational methodologies have changed as a result of the advancement of technology. First, e-learning as a novel approach needs to be defined. A web-based educational system on a platform with Internet, Intranet, or computer access could be classified as e-learning in a few words. E-learning has two primary subcategories: synchronized, in which teachers and students conduct class in an online environment, and asynchronous, in which people conduct self-training in such environments (Coppola, Hiltz, & Rotter, 2002). When they wish, students can access the course materials online any time, and they can use communication tools like forums and e-mail to interact with other students and lecturers. In order to improve the effect of e-learning, synchronously and asynchronously programs should be organized (Hrastinski, 2008).

Literature Review

E-learning has now much influence on our education system and it is a community collaborative education is known as traditional way of learning, in this mode of learning students and teachers face to face interact and in other case which is opposite to traditional way, and teacher has some distance (Babu & Sridevi, 2018), Students get

their education at their doorsteps and can easily get their jobs online. Education is now in the range of all learners and can easily accessible to everyone.

Schot and Steinmueller (2018), claimed that in modern generation due to access of generous technology and so they have less abilities of creative mind. In modern era technology has direct link with learning. It is serious to comprehend the impression of technology in education due to which students take interest in attendance and develop their skills in learning more knowledge and creative work. Learners can use these skills of technology and can teach other in any institutions. According to Mohammadyari & Singh (2015), in technology e-learning leading to independent learning and has become a powerful tool, which provides direct access to guide students for obtaining information and knowledge by themselves. in order to further develop that skills teacher, have the responsibility to guide students as they investigate and obtain data in order to further develop those skills. Afterward, without even knowing it students develop their own learning strategies "learn how to learn" and can plan further to enhance their learning skills (McCombs, 1988).

Technology and its innovations have had a positive impact on our daily lives brings revolution in the field of education (Geitz & de Geus, 2019). E-learning is done through online system. can refer to the situation where the interaction between the students and the teacher can be seen. Students and teacher may also in the same building are received training and taught through online system (Violante & Vezzetti, 2015). Due to revolution social society take a vast jump in the field of material technology and the expansion of web. Now the society has more focus on information and new technologies has become an important part in field of educationist reported by (Kang et al., 2020).

In education E-learning has acted as an active learning for learners and it promotes individual independency, can be seen good results in classrooms (Koohang et al. 2016). E-learning represent different forms of learning and by using any E-learning source like emails to printing materials to distant areas of courses.

According to Rovai case of Conservation classroom and E-learning courses Student Motivation was researched. Their findings show that e-learning students are more essentially driven than students who have taken simple traditional classrooms (Katz, Kedem-Yemini, 2021). In both traditional and online learning, the results also confirmed that motivation is better seen in students who learned under the environment of E-learning than traditional way of learning. The research was done to observe learners' behavior concerning E-learning systems (Liaw, Huang, & Chen, 2007).

It was further studied about the student's motivation through the traditional way of learning and by E-learning method, their results proved that students who learned under the platform of E-learning environment showed much good performance than the students who learned under traditional way of learning method, they create that there were no changes in the motivational learning of learners (Kelly, Ponton, Rovai, 2007). Moreover, he further concluded that E-learning has good impact on graduated students as compare to undergraduate students when they observed under E-learning and traditional learning (Elfaki, Abdulraheem, Abdulrahim, 2019).

E-learning creates much motivation among students. The conclusion which brought form e-learning has influence on SDEL self-directed E-learning and it brought inspiration in learners and learners showed much interest (Kim & Frick, 2011). It has been

observed that especially in developing countries more focus is on curriculum design to improve the learner' work (Akhmetshin et al., 2019).

According to Bhuasiri et al. (2012) It was found that if learners in developing countries get inspired from new technologies like E-learning in this way it would be easy to applying E - learning in these countries. By proper structure of E -learning courses it would be easy for learners to get knowledge in right way and more better results can be get in education. Moreover, it is also concluded that as far as the student's result is concern especial courses can be design so that students can pay more attention to their lesson due to E -learning.(Jeong, Choi, & Song, 2012). Calculated about the interest of student in e-learning and their findings showed that TATIUC can be the reason for student's alertness in e- learning. (Yacob, Kadir, Zainudin, Zurairah, 2012).

Material and Methods

The study was survey and descriptive in nature. The quantitative as well as qualitative (QUAN-qual) technique was adopted. The pre-test and post-test were used. The control group experimental design was used in this study. This design involves two groups viz. Experimental group and control group which were randomly distributed. The sample of study comprised 40 female students enrolled at Grade-9 studying the subject biology in Rahim Yar Khan.The students were arranged in descending order of their marks obtained in 8th class. The students were randomly divided into two groups called control group and experimental group. The unassuming random sample method was implemented. The sample of the learning consisted of the data collected using the questionnaire from ten (10) teachers of G.G.H.S Tranda Ali Murad and forty (40) students of class 9th of science class.

Research Tool

The questionnaire was designed to achieve objectives and 42 questions were designed. The research tool was validated through the experts opinion and reliability was ensured through the Cronbatch's Alpha. The researcher got permission from the principals of private schools. After getting permission from the principals' procedures was adopted for the data collection. The questionnaires were distributed among the students; they instructed to fill the questionnaires.

Results and Discussion

Table 1
Factor.1: Self-Paced Learning

Sr.	Theme	Stat.	SDA	DA	UD	A	SA	Total	SD	Mean
1	Learning in comfortable mode	*f*	0	1	4	5	0	10	0.70	3.40
		%	0	10	40	50	0	100		
2	Independent learning	*f*	0	2	1	7	0	10	0.85	3.50
		%	0	20	10	70	0	100		
3	Learning through activities	*f*	0	1	1	4	4	10	0.99	4.10
		%	0	10	10	40	40	100		
4	Braining storming	*f*	0	1	4	3	2	10	0.97	3.60
		%	0	10	40	30	20	100		
5	Convenient learning	*f*	0	0	4	5	1	10	0.67	3.70
		%	0	0	40	50	10	100		
Total		***f***	**0**	**5**	**14**	**24**	**7**	**50**	**197.68**	**15.34**
		%	**0**	**10**	**25**	**52**	**13**	**100**		

Table 1 represents that students learn in a comfortable mode through E-learning. According to the data in above table 1 (in serial 1), 50% respondents agreed that students learn in a comfortable mode through E-learning and 40% respondents remained undecided. 10% respondents disagree with statement. Overall, 50% of the respondents approve with the report. Mean value 3.40 showed inclination towards approved and standard deviation 0.70 supported.

Above table (in serial 2) represents that students learn independently through E-learning. According to the data, 70% respondents agreed that students learn independently through E-learning and 10% respondents remained undecided. 20% respondents disagree with statement. Overall, 70% of the respondents agree with the statement. Mean value 3.50 showed inclination towards agreed and standard deviation 0. 85 supported.

Above table (in serial 3) represents that Students learn through activities. According to the data, 40% respondents agreed that students learn through activities and 10% respondents remained undecided. 10% respondents disagree with statement. Overall, 40% of the respondents agreed with the statement. Mean value 4.10 showed inclination towards agreed and standard deviation 0. 99 supported.

Above table (in serial 4) represents that Students learn through brainstorming session. According to the data, 30% respondents agreed that Students learn through brainstorming session and 40% respondents remained undecided and 10% students disagree with statement. Overall, 30% of the respondents agreed with the statement. Mean value 3.60 showed inclination towards agreed and standard deviation 0. 97 supported. Students learn in a comfortable mode through E-learning.

Above table (in serial 5) represents that students learn conveniently through E-learning. According to the data, 50% respondents agreed that students learn conveniently through E-learning and 40% respondents remained undecided. Overall, 50% of the respondents agree with the statement. Mean value 3.70 showed inclination towards agreed and standard deviation 0. 67 supported.

Table 2
Factor-2 Students centered

Sr. No.	Theme	Stat.	SDA	DA	UD	A	SA	Total	SD	Mean
1	Through E-learning	*f*	0	3	2	5	0	10	0.92	3.20
		%	0	30	20	50	0	100		
2	Through activities	*f*	1	2	2	5	0	10	0.97	3.50
		%	10	20	20	50	0	100		
3	Sharing innovative ideas	*f*	0	0	3	5	2	10	0.74	3.90
		%	0	0	30	50	20	100		
4	Developing ideas	*f*	0	1	2	5	2	10	0.92	3.80
		%	0	10	40	50	20	100		
Total		*f*	**1**	**6**	**9**	**20**	**4**	**40**	**3.55**	**14.4**
		%	**2.5**	**15**	**27.5**	**50**	**10**			

Table 2 represents that students interact through E-learning. According to the data in table 2 (in serial 1), 50% respondents agreed that students interact through E-learning and 20% respondents remained undecided. 30% respondents disagree with statement. Overall, 50% of the respondents agree with the statement. Mean value 3.20 showed inclination towards agreed and standard deviation 0. 92 supported.

Above table (in serial 2) represents that students learn through performing activities through E-learning. According to the data, 50% respondents agreed that students learn through performing activities through E-learning and 20% respondents remained undecided. 20% respondents disagree with statement and 10% students strongly disagree. Overall, 50% of the respondents agree with the statement. Mean value 3.50 showed inclination towards agreed and standard deviation 0. 97 supported.

Above table (in serial 3) represents that Students share innovative ideas through E-learning. According to the data, 50% respondents agreed that students share innovative ideas through E-learning and 20% respondents strongly agreed.30% respondents remained undecided while no respondent disagree with the statement. Overall, 50% of the respondent agree with the statement. Mean value 3.40 showed inclination towards agreed and standard deviation 0.70 supported.

Above table (in serial 4) represents that Students develop ideas through E-learning. According to the data, 50% respondents agreed that Students develop ideas through E-learning and 40% respondents remained undecided. 10% respondents disagree with statement. Overall, 50% of the respondents agree with the speech. Mean value 3.80 showed disposition towards agreed and standard deviation 0.92 supported.

In the light of results as enumerated above in table 1 and 2, it has been seen that all the statements have been agreed upon by more than 50% of the respondents. It is found that E-learning mode is the best way to learn by the students.

Discussion

The study showed that half of the respondents agreed that students learn in a comfortable mode through E-learning and many respondents remained undecided while few respondents disagreed with statement. The study resolved that majority of the respondents agreed that Students learn independently through E-learning and many respondents remained undecided. Some of the respondents disagree with statement. The study exposed that some of respondents approved that students learn through activities and many respondents remained undecided. Few respondents disagree with statement. The study clinched that few respondents agreed that Students learn through brainstorming session and many respondents remained undecided and few students disagree with statement.

Conclusion

The study concluded the half of the teachers agreed that students learn in a comfortable mode through E-learning and many teachers remained undecided while few teachers disagree with statement. Collectively half of the teacher approved with the statement and Mean value and standard deviation supported the results.

Recommendations

On the basis of the findings, discussions and conclusions it is recommended that, E-learning method being more effective in our education system as compared to traditional way of learning, must be included in our teaching methods in science subjects. As far as other subjects are concerned this latest technology can be adopted for effective learning to get quality education (Especially in field of science for example biology, physics etc.)

So it has become a blessing for science teachers to use E-learning for the improvement of our education system. For the purpose of using this E-learning method proper training is required for new teachers and students can be motivated in this manner by using proper tools related to E-learning material.

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