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RESEARCH PAPER

E-learning Practices and Problems in Technology-Based Classrooms at Higher Education Level: An Analysis

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ABSTRACT

Technology has changed the learning process into such a speedy and global environment that none can ignore this innovation. E-learning environment has provided a most up-to-dated, rapid, high quality and massive flow of information through which each learner can connect, discuss, share and collaborate with others through innovative, visual and advance tools in anytime, anywhere. In this study the researcher analysis the e-learning practices and technology-based classrooms. This study also identifies the problems which create hurdles for adopting e- learning and technology-based classrooms at higher education level in Pakistan. For this purpose, three hundred and five (305) students and teachers were targeted from Bahauddin Zakariya University and Women University, Multan-Pakistan. Quantitative data was collected through well-developed questionnaire with the help of simple random sampling technique. The result of this study found that e-learning practices and technology-based classes are not being fully adopted in these universities which resulted poor academic performance and quality of education which has left behind Pakistani universities in the ranking of top universities globally. Without implementing effective e-learning platform in the universities, developing countries like Pakistan can't be able to get prosperity and wellness. This research recommended that all hurdles such as lack of technical skills, interaction, motivation and collaboration among students and teachers as well as policy making, classroom management, maintenance of tools, provision of e-resources, administrative and financial supported must be provided to the universities for quality enhancement of education in Pakistan.

KEYWORDS Classrooms, E-learning, E-resources Practices, Problems, Technology

Introduction

Education and its role in the development of people and society is one of the most important aspects influencing a country's economic growth. Historically, education was typically delivered through traditional methods Due to the rapid advancement of technology, the trend toward globalization in higher education, the eradication of student boundaries, and new methods and perspectives in educational practice, such as e-learning, have emerged due to the rapid advancement of technology, the trend toward globalization in higher education, the eradication of student boundaries, and new methods and perspectives in educational practice, such as e-learning, have emerged (Nurakun et al., 2018). Moreover, understanding the significance of e-learning as a tool for quick and comprehensive expansion of higher education is a fundamental prerequisite, particularly for developing nations such as Pakistan. Additionally, Arpaci (2015) stated that e-learning has received a lot of attention from scholars from all over the world with many advertising the benefits of e-learning over conventional learning since it can be utilized in a mixed style. Numerous studies demonstrate the advantages of e-learning in higher education for both instructors and students (Bhuasiri et al., 2012).

Furthermore, Wagner et al., (2008) explained that e-learning has transformed higher education by enhancing teaching and learning with technology. Currently, e-learning

is used to support students and teachers, keep track of student profiles, and provide formative and summative assessment feedback to students. E-learning is a cost-effective and effective way to reach distance learners both domestically and internationally, within the limitations of the infrastructure. E-learning facilitates interaction among students and professors through well-established discussion platforms. Additionally, e-learning accommodates the different learning styles of students, such as those who prefer self-paced learning (Biggs & Tang, 2011). Therefore, many studies (Aguti , 2015; Alzahrani, 2021; Ali,2022) explore that the terms "distance learning", "e-learning", "online learning", and "virtual learning" are usually used interchangeably. All of these terms belong to the general term technology-enhanced learning. However, they have different meanings and both focus on different aspects of education. With the support of the teachers, students can use the e-learning in the classroom. Online learning involves regular face-to-face interaction. In fact, e-learning is often used as a blended learning technique. In previous studies, focused on the online or distances learning but purpose of this study to analysis the practices of e-learning and technology-based classrooms are used in the higher education level in Pakistan and which type of problems student and teachers face for adopting e-learning and technology in the classrooms. In the light of above study overview, two objectives of the study were; To identify the perceptions of teachers and students regarding e-learning practices in the public universities and to identify the problems faced by the teachers and students for adopting e-learning and technology-based classrooms.

Literature Review

E-learning Framework

The conceptual framework of this study is based on the social cognitive theory. Tsai (2010) stated that Social Cognitive Theory (SCT) shows how the influence of culture on individual, environmental and behavioral factors affect an individual's well-being and capabilities .It is also recognized that high expectations and self-efficacy determine an individual's attitudes, decisions, actions, investment efforts, and strategies in a given situation Supports positive outcomes of e-learning based on social-cognitive theory .Researchers (Dhawan, 2020; Gros, 2018) report E-learning is described as a teaching and learning method which, when applied, may constitute all or part of an educational model, using electronic media and devices to facilitate the acquisition, development and improvement of the quality of education and training. A school's culture and attitudes, as well as the way it invests in technology, can also influence teachers' perceptions, attitudes towards the use of technology in the online learning process. Educational institutions seem to be attractive the tools and applications needed to build collaborative projects. The institution needs to recognize its own environment and possibly adapt it to the e-learning practices. To do this, must develop a set of rules or plans that will serve as a basis for connected work and facilitate student adaptation to this e-learning practices.

Resources supported technology-based classrooms

On the other hand, several studies (Kopczynski, et al., 2012; Dey, 2019) have concluded that teaching and learning models provide valuable learning resources and provide students with the necessary skills which supported technology-based classrooms. Devices are best used in a classroom setting for their development. These authors developed an online tool for assessing readiness to learn, consisting of four variables technology, innovation, people and personal development, which are assessed using three factors: resources, skills and attitudes. According to these studies, each factor variable must be considered in the assessment process because in some cases an organization has sufficient resources to use e-learning but does not have the necessary skills to use those resources, this can lead to failure. Likewise, an organization may have both the resources and skills to implement e-learning but have negative attitudes toward technologies that delay e-learning success. Therefore, managers need to assess an institution's readiness for e-learning by

analyzing the resources available and understanding the skill levels and attitudes of their staff.

E-learning Practices

Particular, in the context of e-learning practices, administrators must proactively respond to a number of changes that are leading to structural changes in methods to enable knowledge acquisition to influence other sources of information. There is a need to encourage all members of communities and educational institutions to become e-learning producers, not just consumers. In short, the management of educational institutions must enable and ensure the interaction between teachers and students in the teaching process in different teaching environments. Faculty members and management should emphasize systematic work on supervision methods and tasks (Colas,et al., 2018).Aguilar (2012) positive student evaluation and tracking of classroom use of e-learning. Educational institutions should develop objectives, content and assessment criteria to assess the best suitability of their staff and students for e-learning. For an e-learning environment to be effective, it must encourage student self-regulation and independence.

Problems in implementing e-learning

Moreover, previous studies have shown that self-regulated learning is more important in online learning than in traditional classrooms (Wang, 2011; Tayebinik&Puteh2012). Self-development systems are also clearly associated with self-regulation and autonomous learning. Self-assessment will more clearly create an environment focused on student learning and the role of assessment will be seen as an opportunity to deepen learning. It will also promote the acquisition of skills that are difficult to achieve in traditional education, such as; Critical and reflective thinking. These researchers found a positive relationship between self-efficacy and experiencing positive emotions during online learning activities. Online learning methods seem to be associated with higher self-efficacy and satisfaction (Gouli,et al ., 2008).Even so, (Khan ,2010; Ali 2022) previous studies highlights problems which faced by the teachers and students regarding to adopt the e-learning and technology based environment in the classrooms. Major problems are lack of resources, lack of training, internet and electricity issues, lack of technical help, absence of expertise, funding problems etc.

Material and Methods

This study was quantitative in nature; therefore, a questionnaire was used by the researcher to collect the data. For this purpose, both teachers and students of Bahauddin Zakariya University, Multan and Women University Multan Pakistan were targeted as population of this study. Population of teachers and students from the departments of social sciences, languages and sciences of both universities was calculated 252 and 8460 respectively. For sample size calculation, the researcher has used soft online sample calculator as suggested by previous researchers (Sharma, et al., 2019; Nakku et al., 2020). Total sample size was 305 respondents in which 260 students and 45 teachers were selected. After getting the exact sample size, the researcher has used well developed questionnaire based on four factors (institutional technological environment, resources supported technology-based classrooms, e-learning practices and problems) extracted from previous studies in which each variable was consisted on 3-close ended items. The data collection was conducted on convenient basis by using simple random sampling technique. The data was processed and analyzed in SPSS in descriptive form. Correlation among all variables were also calculated.

Data Analysis

In order to check the current status of e-learning practices and problems, responses were calculated in SPSS v.20. From table 1 to table 4, responses of 305 participants are shown against 5-point likert scale (1=Strongly Agree to 5=Strongly Disagree).

Results and Discussion

Table 1
Responses under Institutional Technological Environment

Item	Statement			SA	A	UN	D	SD	Total	Mean	SD
1	Our university provides administrative support for effective e-learning and technological classroom	**Students**	Count	47	56	35	47	75	260	2.27	1.483
			%	15.4%	18.4%	11.5%	15.4%	24.6%	85.2%		
		Teachers	Count	6	4	2	27	6	45	2.44	1.525
			%	2.0%	1.3%	0.7%	8.9%	2.0%	14.8%		
		Total	Count	53	79	37	74	62	305	**2.38**	1.521
			%	17.4%	25.9%	12.1%	24.3%	20.3%	100.0%		
2	Our university provides financial support for effective e-learning and technological classroom	**Students**	Count	57	63	36	49	55	260	2.06	1.465
			%	18.7%	20.7%	11.8%	16.1%	18.0%	85.2%		
		Teachers	Count	3	5	9	4	24	45	2.20	1.491
			%	1.0%	1.6%	3.0%	1.3%	7.9%	14.8%		
		Total	Count	60	68	45	53	79	305	**2.19**	1.505
			%	19.7%	22.3%	14.8%	17.4%	25.9%	100.0%		
3	Our university has well-developed and pre-defined e-learning implementation Policy	**Students**	Count	44	58	32	70	56	260	2.62	1.191
			%	14.4%	19.0%	10.5%	23.0%	18.4%	85.2%		
		Teachers	Count	16	11	8	2	8	45	2.80	1.315
			%	5.2%	3.6%	2.6	%0.7	2.6%	14.8%		
		Total	Count	60	69	40	72	64	305	**2.85**	1.294
			%	19.7%	22.6%	13.1%	23.6%	21.0%	100.0%		

Regarding institutional technological environment, table 1 indicates the opinions of both students and teachers. Under first statement, mean score of students (2.27 < 3.0) and teachers (2.44 < 3.0) are shown negative which means majority of students and teachers are disagreed that their university provides administrative support for effective e-learning and technological classroom while, under second statement, score of students (2.06 < 3.0) and teachers (2.20 < 3.0) are also shown negative which means majority of students and teachers are disagreed that their university provides financial support for effective e-learning and technological classroom . Similarly, under third statement, score of students (2.62 < 3.0) and teachers (2.80 < 3.0) are also shown negative which means majority of students and teachers are disagreed that their university has well-developed and pre-defined e-learning implementation policy. Overall, the lowest mean score (2.19 < 3.0) against second statement among all above three statements reveals that the less financial support from their institutions has the strongest negative effect on e-learning classroom technological environment.

Table 2
Responses under resources supported technology-based classrooms

Item	Statement			SA	A	UN	D	SD	Total	Mean	SD
1	E-learning classroom environment is supported by online resources in our university.	Students	Count	58	48	63	52	39	260	3.32	1.221
			%	19.0%	15.7%	20.7%	17.0%	12.8%	85.2%		
		Teachers	Count	13	18	3	6	5	45	3.73	1.271
			%	4.3%	5.9%	1.0%	2.0%	1.6%	14.8%		
		Total	Count	71	66	66	58	44	305	**3.79**	1.163
			%	23.3%	21.6%	21.6%	19.0%	14.4%	100.0%		
2	Our university provides both teaching and	Students	Count	24	27	34	4	171	260	2.55	1.036
			%	7.9%	8.9%	11.1%	1.3%	56.1%	85.2%		
		Teachers	Count	18	9	5	5	8	45	3.32	1.043

	learning support for effective e-learning and technological classroom	Total	%	5.9%	3.0%	1.6%	1.6%	2.6%	14.8%		
			Count	42	36	39	9	179	305		
			%	13.8%	11.8%	12.8%	3.0%	58.7%	100.0%	**3.19**	1.039
3	Our university provides support with up-to-date and advanced e-learning tools in classroom	Students	Count	32	111	34	28	55	260	2.13	1.271
			%	10.5%	36.4%	11.1%	9.2%	18.0%	85.2%		
		Teachers	Count	28	9	2	2	4	45	2.73	1.074
			%	9.2%	3.0%	0.7%	0.7%	1.3%	14.8%		
		Total	Count	60	120	36	30	59	305	**2.81**	1.336
			%	19.7%	39.3%	11.8%	9.8%	19.3%	100.0%		

Regarding Resource Supported Technolog based Classrooms, table 2 indicates the opinions of both students and teachers. Under first statement, mean score of students (3.32> 3.0) and teachers (3.73> 3.0) are shown positive which means majority of students and teachers are agreed that e-learning classroom environment is supported by online resources in our university while, under second statement, score of students (2.55< 3.0) is shown negative and teachers (3.32> 3.0) is shown positive which means majority of students are disagreed and majority of teachers is agreed that their university provides both teaching and learning support for effective e-learning and technological classroom. Similarly, under third statement, score of students (2.13< 3.0) and teachers (2.73< 3.0) are shown negative which means majority of students and teachers are disagreed that their university provides support with up-to-date and advanced e-learning tools in classroom. Overall, the lowest mean score (2.81 < 3.0) against third statement among all above three statements reveals that the lack of support with up-to-dated and advanced e-learning tools in classroom has the strongest negative effect on e-learning classroom environment.

Table 3
Responses under E-learning Practices

Item	Statement			SA	A	UN	D	SD	Total	Mean	SD
1	I use e-learning technology to find information during class	Students	Count	63	65	18	71	43	260	3.41	1.321
			%	20.7%	21.3%	5.9%	23.3%	14.1%	85.2%		
		Teachers	Count	4	7	16	7	11	45	3.60	1.275
			%	1.3%	2.3%	5.2%	2.3%	3.6%	14.8%		
		Total	Count	67	72	34	78	54	305	**3.49**	1.127
			%	22.0%	23.6%	11.1%	25.6%	17.7%	100.0%		
2	E-learning improve your performance	Students	Count	16	28	23	165	28	260	3.15	1.063
			%	5.2%	9.2%	7.5%	54.1%	9.2%	85.2%		
		Teachers	Count	12	21	6	2	4	45	3.32	1.054
			%	3.9%	6.9%	2.0%	0.7%	1.3%	14.8%		
		Total	Count	28	49	29	167	32	305	**3.29**	1.046
			%	9.2%	16.1%	9.5%	54.8%	10.5%	100.0%		
3	.E-learning equipment (hard ware and software) within classrooms as well-maintained and managed by our university	Students	Count	53	105	24	33	45	260	2.34	1.253
			%	17.4%	34.4%	7.9%	10.8%	14.8%	85.2%		
		Teachers	Count	22	11	2	4	6	45	2.66	1.041
			%	7.2%	3.6%	0.7%	1.3%	2.0%	14.8%		
		Total	Count	75	116	26	37	51	305		
			%	24.6%	38.0%	8.5%	12.1%	16.7%	100.0%	**2.91**	1.376

Regarding Under E-learning Practices, table3 indicates the opinions of both students and teachers. Under first statement, mean score of students (3.41> 3.0) and teachers (3.60> 3.0) are shown positive which means majority of students and teachers is agreed that they use e-learning technology to find information during class while, under second statement, score of students (3.15> 3.0) and teachers (3.32> 3.0) are shown positive which means

majority of students and teachers is agreed that e-learning improve their performance. Similarly, under third statement, score of students (2.34< 3.0) and teachers (2.66< 3.0) are shown negative which means majority of students and teachers are disagreed that e-learning equipment (hardware and software) within classrooms are well-maintained and managed by their university. Overall, the lowest mean score (2.91 < 3.0) against third statement among all above three statements reveals that the less maintenance of e-learning equipment within classroom has the strongest negative effect on e-learning classroom environment.

Table 4
Problems

Item	Statement			SA	A	UN	D	SD	Total	Mean	SD
1	E-learning resources are available in classrooms.	Students	Count	122	72	13	28	25	260	2.35	1.361
			%	40.0%	23.6%	4.3%	9.2%	8.2%	85.2%		
		Teachers	Count	19	13	2	6	5	45	2.80	1.365
			%	6.2%	4.3%	0.7%	2.0%	1.6%	14.8%		
		Total	Count	141	85	15	34	30	305	**2.49**	1.675
			%	46.2%	27.9%	4.9%	11.1%	9.8%	100.0%		
2	My classroom has the facility of internet	Students	Count	89	61	16	43	51	260	2.15	1.036
			%	29.2%	20.0%	5.2%	14.1%	16.7%	85.2%		
		Teachers	Count	22	11	3	2	7	45	2.22	1.043
			%	7.2%	3.6%	1.0%	0.7%	2.3%	14.8%		
		Total	Count	111	72	19	45	58	305	**2.16**	1.039
			%	36.4%	23.6%	6.2%	14.8%	19.0%	100.0%		
3	Analysis of e-learning content, audiences, goal, media and strategies are done in our university	Students	Count	98	49	12	55	46	260	2.06	1.274
			%	32.1%	16.1%	3.9%	18.0%	15.1%	85.2%		
		Teachers	Count	21	9	3	7	5	45	2.32	1.073
			%	6.9%	3.0%	1.0%	2.3%	1.6%	14.8%		
		Total	Count	119	58	15	62	51	305	**2.25**	1.331
			%	39.0%	19.0 %	4.9%	20.3%	16.7%	100.0%		

Regarding Problems table 4 indicates the opinions of both students and teachers. under first statement, mean score of students (2.35< 3.0) and teachers (2.80< 3.0) are shown negative which means majority of students and teachers are disagreed that e-learning resources are available in classrooms while, under second statement, score of students (2.15 < 3.0) and teachers (2.22< 3.0) are also shown negative which means majority of students and teachers are disagreed that my classroom has the facility of internet. Similarly, under third statement, score of students (2.06< 3.0) and teachers (2.32< 3.0) are shown negative which means majority of students and teachers are disagreed that analysis of e-learning content, audiences, goal, media and strategies are done in our university. Overall, the lowest mean score (2.16< 3.0) against second statement among all above three statements reveals that the lack of facility of internet during e-learning classroom environment.

Table 5
Correlations

Variables		EM	ELE	RSE	SD	EEE	IE	EE
E-learning Practices	Pearson Correlation	1	.289**	.043	.141	.093	.121	.009
	Sig. (2-tailed)		.001	.021	.013	.002	.002	.003
	N	305	305	305	305	305	305	305
Resource Supported technology-based classrooms	Pearson Correlation	.043	.063	1	.161	.258**	.090	.171
	Sig. (2-tailed)	.031	.017		.006	.004	.025	.029
	N	305	305	305	305	305	305	305
Problems	Pearson Correlation	.093	.065	.258**	.191*	1	.407**	.306**
	Sig. (2-tailed)	.006	.002	.004	.034		.000	.001
	N	305	305	305	305	305	305	305
	Pearson Correlation	.121	.050	.090	.209*	.407**	1	.394**

Institutional technological Environment	Sig. (2-tailed)	.001	.002	.025	.020	.000		.000
	N	305	305	305	305	305	305	305

*. Correlation is significant at the 0.05 level (2-tailed).
**. Correlation is significant at the 0.01 level (2-tailed).

Table 5 shows the Correlations among four factors of this study. Pearson Correlation and 2-tailed significant values reveal a positive and significant (p=.000) relationship among Institutional technological environment, resources supported technology-based classrooms, e-learning practices and problems**.**

This study was conducted under two objectives; firstly, to identify the practices of technology-based different environments to develop effective e-learning classrooms in universities and secondly to examine the problems regarding to e-learning adaptation during classroom instructions in universities. Results show that under dimension of institutional technological environment, findings show that although, institutional environment has a positive and significant relationship with effective e-learning practices and technology based classroom environment but, according to the respondents score (2.19 < 3.0) from the selected universities, their universities doesn't provide administrative support and financial support for practices e-learning classroom and technology based environment because their universities has not well-developed and pre-defined e-learning implementation policy. Under dimension of resources supported technology-based classrooms, results show that although, resource supported environment has a positive and significant relationship with effective e-learning classroom environment but, according to the respondents (2.81 < 3.0) from the selected university, their university doesn't provide support with up-to-date and advanced e-learning tools in classroom. Further, majority of students were disagreed that they were not provided technical training support while teachers were agreed that they are provided technical training support by their university. Similarly, both students and teachers were agreed that e -learning classroom environment is supported by online resources in their university. Under dimension of e-learning practices, results show that although, e-learning practices has a positive and significant relationship with effective learning in the classroom but, according to the respondents (2.91 < 3.0) from the selected universities-learning equipment (hardware and software) within classrooms are not well-maintained and managed by their university. Further, the majority of respondents were agreed that e-learning is helpful for improving their performance on the other hand, both teachers and students are agreed that use they use e-learning technology to find information during class. Under dimension of problem, results show that problems create great hurdles for adopting e-learning and technological based classrooms according to the respondents from the selected universities, resources are not available in the classrooms by their university. Further, the majority (2.16< 3.0) was disagreed their classroom has the facility of internet and that analysis of e-learning content, audiences, goal, media and strategies are done in their university.

The results under institutional technological environment show that this dimension has positive and significant relationship with effective e-learning and technological based classroom environment but the current status of the selected university is very poor in this regard. These findings are in line with (Gupta, et al., 2013; Gerick, et al., 2017) who reported that a institute's culture and attitudes, as well as the way it invests in technology, can also influence teachers' attitudes towards the use of technology in the online learning process. Educational institutions seem to be assimilating the tools and applications needed to build collaborative projects. The institution needs to recognize its own technological environment and possibly adapt it to the e-learning environment. To do this, institutes must develop a set of rules or plans that will serve as a basis for e-learning study and help students adapt to this e learning environment. In respect of resources supported technology-based classrooms, it is found in this study that this dimension is also positively and significantly co-related with effective classroom environment but the students' opinion is different from teachers from the selected universities that they are only supported by online resources rather than offline

technical support with up-to-date and advanced e-learning tools in classroom while teachers don't think so. These results are also in line with (Dey& Bandyopadhyay 2019;Espino-Diaz, et al., 2020;Kupczynski,et al., 2012) who concluded Instructional models can provide valuable learning resources and equip students with the personal and professional skills they need to grow. Their implementation in education requires access to technical and digital resources. Prior knowledge and understanding of how to use these resources correctly is also required. In short, educational institutions need to ensure better availability and accessibility of technological resources and devices in the classroom. With the use of new technologies, education is developed more and more in future. This study also found that e-learning practices has a positive and significant relationship with effective classroom environment but the majority of respondents think that e-learning equipment (hardware and software) within classrooms are not well-maintained and managed by their university. Further, this study also found that performance can be improved and getting more information through e-learning. These results also in line with the findings of (Gupta et al., 2013; Colas, et al., 2018) who concluded that e-learning practices has a lot of benefits this can relate to easy access to course resources and improved research and education. E-learning allows students and teachers to combine work and instruction. E-learning offers additional benefits including self-directed learning, easy accessibility, better communication between students and teachers via discussion forums and email; improved retention and reinforcement of information through self-paced learning and the ability to connect with diverse learners. The result of this study shows problems which faced by the teachers and students regarding to adopt the e-learning and technology-based environment in the classrooms. Major problems are lack of resources, internet facility and lack of e-learning content, planning and strategies. These lines are in the line of the findings of (Olaniran, 2008; Nasir ,2017) concluded that lack of resources, lack of training, internet and electricity issues, lack of technical help, absence of expertise, funding problems etc. are the major problems to adopt e-learning and technology-based classrooms.

Conclusion

The researcher has investigated the Institutional technological Environment, Resource Supported Technology-based Classrooms, E-learning Practices, Problems with effective e-learning practices and technology-based environment at Higher Education level in Pakistan. The researcher successfully identified the major factors which involve in developing an effective classroom environment based on e-learning. The researcher has used Social Cognitive Theory to draw the conceptual framework of this study. The theory shows how culture's influence on individual, environmental, and behavioral factors affect an individual's well-being and capabilities. In the light of literature review and the selected theory, four dimensions of institutional technological environment, resource supported technology-based classrooms, e-learning practices, problems of e-learning environment were extracted to find out their impacts on effective e-learning. In order to examine these dimensions, data of 305 respondents including teachers and students from Bahauddin Zakariya University, Multan, Pakistan, was collected through simple random technique. The collected data was analyzed in SPSS v.20. Results show that all dimensions are significantly and positively co-related with effective e-learning classroom environment which can lead any educational institution to the best academic performance of their students as well as teachers. The results of this study contribute to other future studies and address the practical issues of implementing and adapting e-learning in public and private universities in Pakistan.

Recommendations

- This research is important to enable students to improve their perception of technology in the classroom to enable modern technologies such as e-learning.

- The policy makers will find this research very useful to address the real and practical aspects of e-learning at university level.
- Funds should be provided to purchase technology items for classroom teaching learning process.
- Technical help, and training should be provided by the department at the time of difficulty during classroom instruction.
- Proper infra-structure, internet facility should be provided for the implementation of technology items for classroom use.

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