

An Empirical Study On Shift Of Lecturers Attitude (Lectures Of Higher Education) During Online Classes In Chennai, Tn.

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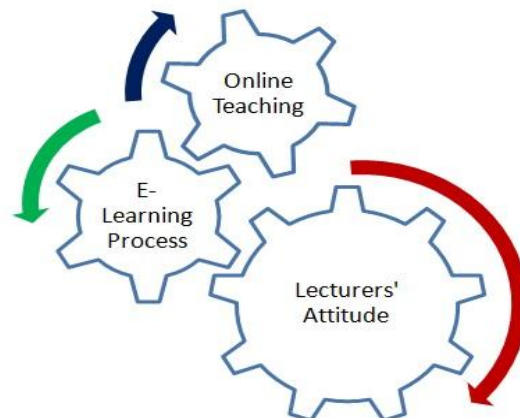
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Abstract: This study examines the shift of lecturers' attitudes during online class, which is the contemporary teaching method of post-covid19 era. Measuring attitude and effort to shift in attitude towards technology is fundamental in effecting any changes through expertise. This study focuses on shift of lectures' attitude towards e-learning and online teaching classes and also to explore the relationship between lecturers' attitudes, online teaching and e-learning process. Online teaching is relatively a new concept in developing countries like India. It has replaced our orthodox traditional education system to the educational technologies (EdTechs) model, where teaching and assessments are conducted online. COVID-19 epidemic has made it mandatory for all the teachers of developing countries to use online platforms for teaching and assessment to support the education sector. Remote teaching and learning conditions through digital channels is possible with latest techniques and technology. The teachers of all discipline need to adapt this technology for the successful execution of online teaching programs and assessments practices. This particular study used a mixed-method and the number of respondents was 52; data collected through online questionnaires framed in Google Form and disseminated through e-mail, Facebook and WhatsApp to the lecturers of higher education in Chennai City. Data was translated into frequency and regression linear. The results showed that 35 lecturers can shift their attitudes toward online classes and remaining 17 lecturers have difficulty in shifting to online teaching and prefer traditional classroom methods.

Keywords: Lecturers' attitudes, online classes, and learning process

1. INTRODUCTION

Hutchison, A., & Reinking, D. (2011) accentuates that educationalist must go beyond computer literacy to achieve technological competence, which is successful integration of technology into the classroom. Deborah L. Lowther. (1998) states that the technological competences require an evolution from using the computer as an instructional delivery system to transforming the computer to a learning tool. Shu-Sheng Liaw. (2007) explored the trend of using e-learning as learning and/or teaching tool is now rapidly expanding into education. E-learning is the new wave in learning strategy. Through innovative use of modern technology, e-learning not only revolutionizes education and makes it more accessible, it also brings formidable challenges for instructors and learners. Mahdizadeh. H. (2007) cites on E-learning environments and important infrastructural



features of universities that enable tutors to provide students with unique representations of knowledge and to improve communication between teachers and students, amongst students groups themselves.

Technological change has made life easy, including teaching and learning process. Developments in technology have improvised innovation leading to many emerging methods that are implemented in e-learning. The increasingly popular stage of higher education helps lecturers, students and institutions to develop further, while many of the lecturers are afraid of technology as they are not conversant in using e-learning techniques (Chiasson, Terras, & Smart, 2015).

The problem in India today is the lack infrastructural setup, unpreparedness of lecturers and institutions in adapting to virtual teaching and learning environments. Many lecturers do not prefer the e-learning method, as students understand better in physical classrooms while e-learning only sends and receives messages online. Many lecturers do not agree to shift learning from traditional teaching methods to the EdTech models, in spite of educational institutions providing such E-Classroom or virtual classrooms. The previous researches by Chin., et., al (2018) indicated that in teaching online, the lecturer strives to make communication of the precise message that has to be conveyed in learning appropriately to students as a whole, besides that when giving constructive feedback, the lecturer as a supporter finds a way to promote positive messages and criticism from students. (De, 2018). Based on the researches above, the study concluded that teaching an online course is the encouragement and support as the approach to foster positive morals in the classroom and the class opens for convenient hours (24 hours and 7 days) a week, and lecturers can actively build a new knowledge while interacting in the learning environment that is a strength in online learning. The purpose of the research is to investigate the lecturers' shift in attitudes during online classes and to seek online teaching in the learning process.

2. DEFINITION OF TERMS

2.1 Lecturers' Attitudes

According to Bakia, Shear, Toyama, & Lasseter, 2012 the important key for lecturers in teaching is to have adequate knowledge and that must be addressed by the ability and skills of lecturers in preparing their teaching. Lecturers' attitudes have conceptual teaching frameworks, especially during online teaching, Arkorful & Abaidoo, 2014 states that, unfortunately, few lecturers have complete knowledge about the available tools, especially during online teaching. Lecturers' attitudes during online teaching can be seen from their knowledge, especially in teaching. Lecturers' knowledge during online teaching is a

confidence of belief that can replace traditional teaching knowledge to online teaching where the lecturers' attitudes are reflected on "the true belief" and defines knowledge as a vibrant human process that justifies personal belief in the truth. Dalkir, 2005 states that lecturers believe that to produce innovation, it is essential to create and learn visual knowledge so that the understanding becomes new knowledge and spreads and is comprehended in learning products. The lecturers need not depend on textbooks while teaching online. Also, the adaptation of information and communication technology will amplify access to resources. Technologies such as interactive web applications, tend to push lecturers toward fundamentally different teaching (Mählck & Chapman, 2014). Lecturers must have specific knowledge about technology and merge it with existing academic content (Hutchison & Reinking, 2011). Many lecturers neglect their inability to adapt the online teaching methods, rather they prefer teaching in front of the class, using textbooks (Kebritchi, Lipschutz, & Santiago, 2017). Other research Davis, F. D. (1989) identified a close relationship between technology, skills and AI (artificial intelligence) integration in the classroom. The lack of computers on campus and access to the broadband internet connections, outdated infrastructure, training costs and poor competence are significant obstacles. According to Bray (2017) states that behavior in using e-learning systems has an inverse relationship between computer experience and the use of e-learning. Many lecturers consider the e-learning program do not meet the students needs due to lack of technology integration into teaching. However, the factors that influence the successful implementation of technology and e-learning in the learning process are the attitudes and beliefs of lecturers towards technology (Alazam, Bakar, Hamzah, a, & Asmiran, 2013). E-learning in a higher educational institutional or an university environment has pedagogic variations impact similar to face-to-face learning, this implies that very few lecturers conduct online teaching on the same pedagogic basis, or the same technological and do have a strict discipline and high technological acquaintance (Bakia, Shear, Toyama, & Lassetter, 2012).

2.2 Online Teaching

Surveys by Gallup and Inside Higher Ed in 2014 on faculty attitudes toward online learning reported the following findings among faculty members and higher educational institute's administrators. Faculty teaching online course are more optimistic about the quality of online learning than are their counterparts who have never tried doing such exercise. Faculty teaching online course is likelier than their peers who have never done so, strongly agree to the fact that online courses can achieve student learning outcomes which will be equivalent to physical classroom courses at any institution. The report also found that those who have experienced teaching online, and presumably were trained to do so, have quite different attitudes that those who have not. Recent insights suggest that evolution of online teaching and learning at higher education institutions is still underway. Additionally, the importance of training faculty is the key to success of online educational programs. But it is still mysterious that which parts of training is more important in building effective online classes and institutional programs

Infrastructure and hardware plays vital role in online teaching; online teaching will run smoothly if infrastructure and training are provided (Mardiana H. 2018). During online learning, synchronize and asynchronous syllabus can be shown by instructors who can motivate students. According to Partlow & Gibbs (2003) online teaching was designed from constructivist principles that were relevant, interactive, project-based and collaborative and create controlled environment for students learning. Besides Perveen (2016) simultaneous occurrence e-learning involves interactive active discussions, direct feedback sessions

and there is familiarity in learning interactions. Therefore, the involvement in classroom carries over to e-learning and it is more dynamic than through multimedia with no time gaps. The discussions were lively and questions were answered immediately straight away. The speed and closeness of simultaneous online learning generates the same level of accountability and involvement as classroom attendance, so ideas that emerge can compete and complement each other in real time and tight schedule than good infrastructure of technology, allows students to enter learning whenever they download documents or send messages to lecturers or classmates. Contribution by other participants in the online classes with additional questions or answers and suggestions and solutions, activating collaboration and connection in learning is justified (De, 2018).

2.3 Electronic learning or e-learning

Computer enhanced learning is Electronic learning or e-learning is an all-encompassing term generally referred by the generation Z. It is often extended to include the use of Smart mobile phone technologies, web based applications and interactive artificial intelligence technology. It also include the use of web-based teaching materials and hypermedia in general, multimedia or websites, discussion boards, collaborative software, e-mail, blogs, wifis, text chat, computer aided assessment, educational animation, simulations, games, learning management software, with possibly a combination of different methods being updated and used. The term e-learning technology in educational technology is generally used to refer to implementation of technology in learning, much broader sense the computer-based training or computer aided instruction of the 1980s. It is also broader than the terms Online Learning or Online Education which generally refer to purely virtual web-based learning, where mobile technologies using the term “webinar” has become more common in recent times.

2.4 Higher Education

Higher Education is the edifice, which rises on the foundation laid down by the School Education. The realm of Higher Education comprises the study of language, Arts, Science, Engineering and Technology leading to graduate, post graduates, and research degrees in one's chosen field of study. The higher education system in our country included both private and public universities. Generally a public university is being supported by Central and the state governments, while private universities are supported by various autonomous bodies and societies. Universities are the mainstay of higher education, as they are the institutions responsible for imparting the advanced and higher education among the youth in any country. After finishing schools, the final steps that helps students gear-up for a career of their capabilities, upon completing their higher education degrees and pass out of the college to get placed in appropriate jobs. Mostly individual seek higher education to improve their job prospects and social status. Few others go for self-improvement, development of character and for the sake of knowledge. Higher education supports individuals to face the real world in a rational way, get broader vision to perceive the facts of life. The dawn of new and advanced information and communication technologies is being applied in the context of Higher Education. Students of Higher Education deserve enriched content, interaction with the faculty and if possible with fellow learners who can achieved through modern communication technologies.

3. OBJECTIVES OF THE STUDY

1. To find out the relationship between lecturers' attitudes and the e-learning process.

2. To find out the relationship between online teaching and the e-learning process.
3. To find out the relationship between lecturers' attitudes towards online teaching, and predicting the best Online Classesprocess.

4. HYPOTHESIS OF THE STUDY

- H1. There exists a significant relationship between the frequency-independent variable of lecturers' attitudes and the e-learning process.
- H2. There exists a significant relationship between the frequency-independent variable of online teaching and the e-learning process.
- H3. There exists a significant relationship between the lecturers' attitudes towards online teaching, predicting the best online-classesprocess.

5. METHODOLOGY

In order to collect data for the present study the researcher administered the tools to the lecturers working in colleges of engineering and technology and university departments. The researcher has used a quantitative method, mixed with a semi-structured qualitative interview technique, by investigating the relationship between variables (Cresswell, 2014). The number of respondents was 52 and data collection was done virtually. Questionnaires were designed in Google Form and disseminated through E-mail, Facebook and WhatsApp. A semi-structured qualitative interview was conducted among 15 lecturers during the months of May 2021-June 2021 on predicting the best online class process. To collect data on the independent variables the researcher used two questions in particular, exploring the dimensions of lecturers' attitudes towards the technological change and the lecturers' attitude towards online teaching.

6. DATA ANALYSIS

The research used five questions in each dimension that were analyzed using frequency and regression linear test for obtaining statistical significance of the relationship between lecturers' attitudes towards online teaching and the e-learning process. First, the reliability and the correlation of data are to be obtained.

To analyze the data, reliability of data and correlation between them has to be derived. Table 1 shows the reliability and correlation between the lecturers' attitudes, online teaching, and the e-learning process.

Table 1.
 Reliability and Correlations of Lecturers'
 Attitudes and Online Teaching in the Online Learning Process

No.	Variables	Reliability	Correlation		
			Lecturers' Attitudes	Online Teaching	E-Learning Process
1.	Lecturers' Attitudes	0.700	1	0.650	0.897
2.	Online Teaching	0.749	0.650	1	0.919
3.	E-Learning (online)	0.897	0.897	0.919	1

Process				
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From the table 1 data, the reliability of questionnaires shows that lecturers' attitudes are 0.700. This proves that the reliability is strong, while the reliability of questionnaires of online teaching shows 0.749 and it is strong too. While the lecturers' attitudes and online teaching is in the learning process, the reliability of questionnaires results 0.919, which proves to be significantly strong. The correlation analysis among lecturers' attitudes and online teaching is moderate 0.650, but for the lecturers' attitudes to the e-learning process results in 0.897 is quite stronger. From data analysis, questionnaires of reliability and correlation prove that the data is valid.

7. FINDINGS AND RESULTS

Here are the finding and results of the research. The frequency for each of the items as per the dimension of data is calculated below. The table also describes the research findings of the frequency of lecturers' attitudes, online teaching and the frequency during e-learning process.

Table 2.
 Frequency of Lecturers' Attitudes,
 Online Teaching in the E-learning process

Variables	Means	SD	Freq.	(%)
Frequency of Lecturers Attitude				
Digital Literacy	3.63	0.558	35	67.3
Lecturers' partnership	3.60	0.616	34	65.8
Lecturers' on-time	3.58	0.623	30	62.5
Lecturers' Beliefs	3.51	0.623	30	57.7
Lecturers' Spirits	3.38	0.728	27	51.9
Frequency of Online Teaching				
Interactive in teaching	3.67	0.530	37	70.2
Technical Knowledge	3.63	0.525	33	64.4
Queries and Comments	3.50	0.639	29	55.8
Lecturers' preparedness	3.45	0.681	28	54.8
Lecturers' Training	3.39	0.716	27	51.9
Frequency During E-learning Process				
Lecturer's Attitude	16.70	1.576	35	67.31
Online Teaching	16.64	1.672	37	70.19

Source: Data Process

From the table 2 data analysis, the frequency of lecturers' attitudes in the e-learning process shows that "digital literacy" component sits in the highest frequency (35 participants or 67.3%) and frequency of online teaching, "interactive in teaching" occupies the highest (37 participants or 70.2%). In the virtual interview, most of the lecturers felt happy when the interaction between lecturers and students, also the interaction can be lecturing and describing the material. Most of the lecturers were able to deliver the material through voice messages. Alamsyah, A. (2018) states that the learning process is a relatively permanent change from behavioral learning because the practice is strengthened and the learning process is carried out in differences in students' experiences and thoughts which will lead to difference in attitudes.

Also, the NSW report (2020) indicates that lecturers with digital literacy abilities can design teaching materials by themselves online. Such study materials are being interactive with students to question and make comments as well.

The analysis shows the second highest frequency of lecturers' attitudes in the e-learning process is "lecturers' partnership" with the other departments of the institutions (34 participants or 65.8%). The second highest frequency of online teaching is "online knowledge base" (33 participants or 64.4%). The lecturers can collaborate with lecturers of several other departments though they teach different subject, this will pave way for broad knowledge sharing. Through successfully partnering with the other departments, lecturers can conduct the learning process, with the same level of efficiency, knowledge, ability, and skills (Caskey & Carpenter, 2014).

According to Hajric, 2018; Dalkir, 2005, online knowledge provides updated information, services and swift sharing of information. However, in analyzing the existing problems in learning, lecturers will have to understand suitably as it requires a great effort in the learning process, such that learning products provided must address the pedagogical approach and altered if needed

Third highest frequency in the analysis of lecturers' attitudes in the e-learning process is "lecturers' punctuality" or keeping up the time (30 participants or 62.5%). The third highest frequency of online teaching is "queries and comment" (29 participants or 55.8%). To be effective in teaching, lecturers follow time management practices and set priorities, organize the day, prioritize tasks (Darby, 2017). Setting priorities can eventually help to stay on track throughout the day, and avoid unexpected workload. The interview results, is very interesting: lecturers who are on-time will become qualified lecturers. To manage class periods, and to complete the class on time, they can set priorities. Crisis in terms of lecturer' behavior will have an effect on student learning outcomes and that will lead to new types of crisis (Bakia, Shear, Toyama, & Lasseter, 2012). When there are potential questions from students, it must be utilized. According to Graesser and Person (1994), students will raise several queries in search of developing their knowledge. If students raise few questions, then the lecturer will have to check whether students have understood the lesson. Usually, students do not ask questions but the encouragement of lecturers will make students to raise quality thinking or cognitive questions (White & Gunstone, 1992); (Chin & Osborne, 2018) with questions that are factual, procedural or outside of human thought.

Fourth highest frequency of lecturers' attitudes in the e-learning process is "lecturers' beliefs" (30 participants or 57.7%), and the fourth highest frequency of online teaching in the e-learning process is "lecturers preparedness" (28 participants or 54.7%). Belief focuses on instruction in presenting teaching, and as a form of belief that aims to teach and can streamline students in a belief system that consists of great confidence based on evidence and reason (Richardson, 1996). The lecturer helps students to change their beliefs, progress the learning process and help students by identifying the value of their beliefs related to teaching (Mardiana & Daniels, 2019). Furthermore, the lecturers' must-have preparedness in online knowledge and skills in using latest technology. For online learning, institutions must strengthen on the training programs and the online learning infrastructure. There is a big significant difference among lecturers who have the awareness to teach online. The reflection of lecturers who keep constantly updating themselves and being prepared in teaching will have great control and can create a good learning ambience to achieve the full learning objectives (Paolini, 2015).

The fifth frequency of lecturers' attitudes in the learning process is "lecturers' spirits" (27 participants or 51.9%) and the same in "lecturers' training" is (27 participants or 51.9%). The

interview results from the lecturers on their spirit to teach the students reflects the enthusiasm of spirit in teaching is to help students who do not understand anything. Making students independent is the pride of lecturers'; students can be independent with the guidance from lecturers, is a proud feeling. Lecturers will continue to teach even after their retirement from teaching profession. According to Slavin, R.E. (1991) the spirit of learning is the tendency of a high heart to obtain information, knowledge, skills through the effort of teaching or experience and Hardjana (1994) stated that the spirit of learning and teaching is the spirit to provide time, energy, effort to absorb and organize information, knowledge, and skills received through various means.

The last frequency is lecturers on the online learning process (35 participants or 67.31%). During the interview with the lectures, most of the respondents are ready to move from traditional teaching to online teaching. According to Redmond (2011) changes in teaching with technology will bring educationalist under pressure, therefore they can establish technological knowledge into online teaching, making them capable and skilled online teaching. Mardiana & Daniels, 2019 stated that, teaching simulations can challenge students, make them involve in online-based activities that require development of lecturer and student skills, teaching tools on the Internet will empower, sharpen abilities and skills.

Among the 52 lecturers of higher education, 35 lecturers wish to change towards online classes and e-learning while 17 lecturers face difficult situations in using e-learning technology and preferred traditional learning. The lecturers prefer to persist teaching for their careers and they have enough training for e-learning, they have also adapted to teaching online learning courses to sustain their employment with the institution. In online teaching, it is shown that 31 lecturers have moved to online teaching, and 21 lecturers are still trying to learn the new technology that will enable them with required ability and skill for teaching online. Almost all lecturers who have difficulty in online teaching do not move quickly to adopt the technology. Bray (2007) and Davis (1998) revealed that generally lecturers who find it difficult to use technology in teaching are lecturers who are technology illiterate, are not skilled and thus make them difficult to change. Most of the lecturers do not have common belief in using technology, rather they prefer physical class room teaching method.

The study also shows the relationship between lecturers' attitudes towards online teaching and learning process, predicting the best e-learning (online) process, in below table.

Table 3.

Variable	R	R Squared	F Change	Sig. Change
Lecturer's Attitude –e-Learning process	0.818	0.766	502.756	0.000
Online teaching – e-Learning Process	0.919	0.845	557.349	0.000
Lecturer's Attitude –Online classes	0.897	0.802	418.901	0.000
<i>Source: Data Process</i>				

Descriptive statistical relationship is depicted in the table 3, explaining the relationship between Lecturers' attitudes towards online teaching in the learning process with value R is 0.818 indicates to predict the learning process, and R Squared measures the proportion of the variable of lecturers' attitudes and learning process which is shown 0.766. It means that the proportion of lecturers' attitudes in the learning process is 76.7% and remaining 23.4% does not include in this research. F-Change shows $502.756 > 0.05$ (James, G., 2013). This can be the answer to the research hypothesis H1. Therefore it is concluded that in lecturers' attitudes and learning process H1 is accepted and H0 is rejected.

It is proven that the relationship between online teaching and learning process is 0.919 and R Squared is 0.845. This indicates that the relationship between online teaching and learning process is 84.5% and remaining 15.5% does not include in this research. For F-Change shown here $557.349 > 0.05$ is greater. Therefore H2 is answered and the conclusion is there exists a significant relationship between online teaching and learning process, obviously H0 is rejected.

The results demonstrate that the relationship among lecturers' attitudes and online classes teaching are shown R is 0.897 and R Squared is 0.802. This indicates that relationship among lecturers' attitudes, online Classes process is 80.2% and remaining 19.8% do not include in this research. The F-Change value shown here under this category is $218.901 > 0.05$. The H3 is answered and it can be concluded that there is significant relationship between lecturers' attitudes, online classes process, therefore H0 is rejected.

8. RESULTS & DISCUSSION

Attitude plays an imperative role in utilizing technology as a strong tool for a positive change. There must be programs at higher educational institutions which may focus on developing a positive attitude among faculty members towards e-learning and information and communication technology.

Lecturers' attitude is listed as an important component in the learning revolution which triggers the beliefs and values of lecturers to be more active in teaching (Mardiana & Daniels, 2019). Shift of Lecturer's attitudes play major role in teaching and learning process in identifying and molding a student's future. The most important thing in education is to focus on students, maximize teaching resources and proper utilization of time. From the frequency of the lecturer's online learning process, 35 lecturers from lecturers' attitudes and 17 lecturers from online teaching (online classes) are eager to improve their attitudes and abilities and skills. This shows that almost 80% of the lecturers are eager to shift their attitudes. These changes can be predicted as a sign of how much the change can occur from beliefs, strong desires to shift the knowledge base, abilities and skills gained through experience, training and expertise of the lecturer (Kneale, 2009). While 17 lecturers from lecturers' attitudes and 13 lecturers from online teaching are having difficulty to change the face-to-face teaching into online teaching. The interview results reflect the facts such as, afraid of technology, technologically illiterate, long time to learn, shifting in attitude is a problem. Besides, they also do not possess a strong belief to change even though the change has been imposed through training and increasing knowledge (Hajric, 2018, Dalkir, 2005).

In online learning, lecturers enter the realm of constant learning phase, in the real world through multimedia, video, and interactivity. Hence, lecturers can effectively employ the power of technology in online learning (Hajric, 2018). In the interviews, many lecturers stated

that their campus lack in infrastructure, inadequate access to e-learning, teaching expertise being unutilized by the campus and students. Teachers who possess knowledge about computer are having favorable attitude towards e-learning. Therefore the benefits of infrastructure should be accompanied along with the ability of lecturers to teach and understand digital literacy to cope up with the online curriculum construction (Caskey & Carpenter, 2014). In particular contexts and small-class sizes, synchronization can be done and very well supported by adequate web based technology. The positive effect is immediately felt by students and lecturers after completing e-learning because of using a synchronous learning approach.

Besides, online classes is increasingly in demand by all the institutions, especially during this post-pandemic situation because of the flexibility in schedule, cost-effectiveness of education and learning opportunities, distance teaching enabling lecturers and students to access the e-learning platform. Besides, training to lecturers' on online teaching must be improvised so that lecturers are more conversant in teaching. The quickening of learning depends on the learner who offers the opportunity at the same time learning with minimal costs is an effective methodology.

9. CONCLUSION

Education is entering a new era; the era of remote teaching and learning process, especially to mark the new normal of post pandemic situation, no other reason can be appropriate for shifting to the online classes. Right from the primary educational institutions to the higher educational institutions and universities are getting adapted to this new normal. Online education makes sense these days in sharpening technological skills new web based applications, enabling lecturers to teach tertiary institutions, do their learning wherever they are, either from far-off places that are not relevant for teaching, but the lecturers can still continue teaching.

However, lecturers need to plan effective integration of online classes as often as possible. Posting prior announcements, providing further explanation, and providing tips on upcoming assignments and reply to online discussion posts are important in answering student questions. Therefore, when teaching directly lecturers need not expect students to continue without regular guidance, because the involvement of faculty and campus will apply on the Internet.

Teachers who possess knowledge about computer are having favorable shift in attitudes towards e-learning. Teachers having blogs differ significantly in their attitude towards e-learning from those who do not have blogs. The following conclusions favor the above mentioned findings: Kayte O'Neill (2004) found that the inference of e-learning on lecturers and students are extensive; and that the e-learning concept can help deliver innovative teaching and learning practices and develop the work force. Sarah Golden, 2006 observed in her study that lecturers were positive and proactive in their attitude towards the role of e-learning in supporting their teaching practice. Pei-Chen Sun A, 2007 opines that the teachers' attitude towards e-learning is one of the critical factors affecting the learners' perceived satisfaction level. Shu Sheng Liew, 2007 found in his study that the instructors have a very positive perception towards using e-learning as a teaching assisted tool for online classes.

The shifting in attitude is more in the case of lecturers who have net access both at home and in the institution. The attitude shift is fluent in the case of lecturers those who have knowledge in computer and using smart phones.

In near future, provided if lecturers have mastered the technology, online teaching and online learning will be fun and students can do quality learning just as we do in the physical class rooms. Focusing the online teaching knowledge, lecturers are compelled to know and deepen the technology that is the 21st-century's teaching reference. The ability, skills and expertise of lecturers are to automate teaching methods, teaching materials and procuring assessment digitally, to track student progress through reporting tools and analytic platforms that are created by the institutional management. Moreover, student progress can be demonstrated in real-time tracking. Students can empower themselves through digital technology and can also go beyond functional and relevant exploration of learning.

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