

E-Learning Readiness in Central Colleges in Sri Lanka

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Abstract

As e-learning becomes utilizable to learning institutions worldwide, an assessment of e-learning readiness is essential for the prosperous implementation of e-learning as a platform for learning. Prosperity in e-learning can be achieved by understanding the caliber of readiness of e-learning environments. The study investigated the preparedness of ten Central Colleges within Kegalle and Gampaha districts in Sri Lanka. The survey examined the caliber of technical competency and computer literacy among edifiers and students, their posture and perception towards the utilization of e-learning. Descriptive research was acclimated to obtain information concerning the caliber of e-learning implementation readiness and to describe the scenarios with reverence to conditions in Central Colleges. Teachers' and students' computer literacy as well their perceptions and posture towards technology were paramount measures of e-learning implementation readiness. This research findings show that edifiers and students are yare to embrace e-learning technology, but there is needed to enhance their technical capacity through training for prosperous e-learning adoption. Though most students accept e-learning, they lack rudimental computer skills required of them to efficaciously use e-learning platform. The study revealed a positive correlation between computer literacy and e-learning acceptance.

Keywords: E-Learning Implementation, ICT infrastructure, e-learning readiness, Perception and attitude

Introduction

Learning institutions are currently integrating technology into their edification, administration and research work due to its usefulness. After several years of effort to embrace technology, Sri Lankan regime promulgated a National Information & Communications Technology (ICT) Policy to amend the livelihoods of Sri Lankans by ascertaining the availability of accessible, efficient, reliable and affordable ICT accommodations (Farrell, 2007). The policy's key strategies pertaining to ICT and inculcation is to enhearten the utilization of ICT in Central Colleges, colleges, universities and other inculcative institutions in the country so as to ameliorate the quality of edifying and learning (MoIC, 2006). However, for learning institutions to prosperously integrate and realize the benefit of technology as a cognition avail and edifying implement, some level of readiness is required.

The utilization of technology in learning can be referred to as electronic learning (e-learning) which comprises a wide range of applications and processes designed to distribute ordinarant dictation through electronic betokens. E-learning signals a paradigm shift in inculcation and its profound effect on inculcation cannot be underestimated. Voogt and Knezek (2008) assert that e-learning is of strategic consequentiality and is an efficacious method that should be coalesced into Central Colleges' learning commix. With technology evolving at such a rapid rate, it is imperative that edifiers and students should be equipped with technical skills to manage e-learning environment. These skills are most efficaciously gained by learning with technology, rather than about technology (Broadley, 2012). Learning with technology not only requires technical skills, but users of technology should withal have the desire to utilize technology as learning and edifying media.

E-learning implementation requires physical infrastructure, technical expertise and psychological readiness. E-learning platform can only be managed and utilized by people with some level of technical skills. In integration to teachers' ICT capacity, Broadley (2012) affirms that, teachers' perception and posture towards e-learning play a critical role in e-learning implementation. However, for some students, and edifiers, e-learning is too easygoing and peregrine, and a number of edifiers feel that technology takes an abundance of control off their hands (Mansour & Mupinga, 2007). It is therefore compulsory to examine the users' technical capacity and their perception towards technology to ascertain levels of e-learning readiness.

Related works

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The process of integrating technology in inculcation has been perpetual for the past two decades. In 1993 William D. Graziadei officially recorded the first online lecture through the Virtual Instructional Classroom (Cross, 2005). Bhattacharya and Sharma (2007) described e-learning as the distribution of course content through electronic denotes which include computer-predicated learning, online learning and distance edification. E-learning is the amalgamation of modern technology into the classrooms which can sometimes include learning that is plenarily independent of mediation (Voogt & Knezek, 2008). The most sizably voluminous domains of the users of e-learning are Central Colleges , colleges and universities which have paid special attention to e-learning in order to expedite the cognition procedures (Olatokun & Opesade, 2008). To prosperously implement e-Learning, learning institutions should first assess their e-readiness to integrate the technology (Saekow & Samson, 2011).

In spite of all the effort the Sri Lankan regime has put forth to introduce e-learning in Central Colleges, haplessly, the report on e-Learning in secondary Central Colleges revealed that less than ten percent of secondary Central Colleges in Sri Lanka offer computer studies as a study subject.

E-learning Implementation Readiness Assessment

In order to benefit from e-learning, it is indispensable to consider up-front analysis to assess the readiness of prospective e-learning implementation (Aydın & Tasci, 2005). The

implementation of the e-learning by any institution can be achieved utilizing one of three approaches: utilizing the technologies to fortify or supplement the traditional face-to-face course, integrating online activities into a traditional course to enhance the cognition experience, and distributing a course that is entirely online (Karim & Hashim, 2004). Any of the implementations approaches an institution culls depends on the caliber of readiness in terms of the budget, infrastructure and human resources such as experience, skills, cognizance and posture (Karim & Hashim, 2004).

Readiness is defined as being “prepared mentally or physically for some experience or action” (Webster’s New Collegiate Dictionary). Borotis and Poulymenakou (2008) defined e-learning readiness as “the phrenic or physical preparedness of an organization for some e-learning experience or action”. E-learning readiness assessment avails an organization to design e-learning strategies comprehensively and to implement its ICT goals efficaciously (Kaur & Abas, 2004). Learners must withal be “e-ready” so that a coherent achievable strategy, tailored to meet their desiderata, may be implemented. E-learning readiness assessment provides key information to organizations disposed to supply e-learning solutions which can cater for the categorical desiderata of each learning group (McConnell, 2008). Olatokun and Opesade (2008) suggested that the parameters to be looked into when accessing the e-readiness for an institutions include; infrastructural availability, access to infrastructure, manpower availability, policy and regulatory framework. Tubaishat and Lansari (2011) identified key components of e-learning readiness as technology, Internet utilization, and general understanding of e-learning and culture at the institution. After analysis the subsisting literature, it was paramount to assess the caliber of Central Colleges readiness to implement e-learning in Sri Lanka by examining the following key components of e-learning implementation; subsisting ICT Infrastructure in Central Colleges, edifiers and students computers literacy level and competence, Central Colleges management support, current content format, and students and edifiers postures and perceptions towards e-learning.

E-learning Implementation Components

Teacher’s Technical Competency

Teachers’ prosperity in handling e-learning programs depends on their prior technical experience in information technology (Boakye & Banini, 2008). Because the ways in which the online curriculum is distributed are incipient – and very different from the traditional approach – a major factor influencing the prosperity of e-learning is teacher’s technical competency. Instructors must themselves be edified in how to capitalize on these updated edifying methods. The way edifiers edify is a product of their own schooling, training, and experiences. It is intransigent to expect edifiers to transmute their subsisting pedagogical approaches if they have not themselves been provided with sufficient and opportune training in how to integrate ICT and incipient edifying technologies into their injunctive authorization programs (Eslaminejad, Masood, & Ngah, 2009). According to Webster and Hackley (1997) there are three characteristics of instructors that influence student performance: posture towards technology; edifying style; and control of the technology. Each of these factors should be taken into account in the identification of opportune edifiers (Volery & Lord, 2000).

E-learning technology is too authoritatively mandating to let edifiers learn to utilize this technology only by experimenting. It is generally accepted that the e-learning competencies for edifiers require a longer course about the technical utilization of the virtual learning environment (Awouters & Jans, 2009). Most categories of ICT-competencies for edifiers are currently too tightened. However, the ICT competences edifiers need to integrate ICT in their edification practice include the fundamental cognizance and skills for handling the required hardware and software, and the skills to cull critically the right media in a cognition process. Finally, edifiers should be cognizant of the incipient technologies that are developed and can be integrated in the quotidian edifying and learning practice (Awouters, Jans & Jans, 2008).

Teacher's Attitude and Perception

One of the most pertinent barriers to the efficacious diffusion of e-learning concerns the cultural and personal postures of edifiers towards e-learning (Afshari et al., 2009). It is paramount to understand the degree to which an edifier believes that e-learning would be free of effort and enhance his or her edification. As there is a high rate of failure of ICT initiatives for the engenderment of development opportunities, a solid understanding of the determinants of utilizer acceptance of particular ICT is crucial not only for theory building but additionally for efficacious practice (Park, et al., 2009). Research has shown that teachers' perceptions and postures towards technologies influenced the efficacious utilization of these technologies in edifying and learning (Paraskeva, Bouta & Papagianna, 2008).

Student's Technical Competency

As Central Colleges incorporate elements of e-Learning, they must optically canvass factors that affect the performance of students. Studies reveal that students who have prior experience of utilizing information technology will generally be more prosperous in e-learning environment than those who do not (Volery & Lord, 2000). For incipient e-learning providers it is consequential then to accommodate students with little prior experience by offering avail. Haverila (2011) asserted that students' prior experience in utilizing information technology is paramount in e-learning though not obligatory. However it was obligatory to ascertain the subsisting level of students' prior experience of utilizing Information Technology (IT) to avail Central Colleges plan, design and execute rudimental IT courses, and to avail students interact seamlessly with e-learning learning environment.

Students' Attitude and Perception

Students find it arduous to migrate from the traditional learning mode to the incipient e-learning mode when they are not confident of handling the incipient learning mode (Datuk & Ali, 2008). Institutions implementing e-learning must be vigilant that students will react differently to the transmuted paradigm of learning and rather than implement changes across the board, should aim to offer courses tailored concretely towards the different learning styles. In failing to take such action, Central Colleges run the peril of low prosperity rates or failures during e-learning implementation as e-learning requires a very high degree of self-motivation which is found to be destitute of among most learners.

Framework of Measuring Levels of Readiness

Measuring the caliber of e-learning implementation readiness in Central Colleges require clear understanding of how key e-learning environmental components interact. The main components of e-learning implementation to be examined are people and technology. Students and learners (students) are the people whose readiness to accept and use e-learning should be quantified. School management must always be yare to fortify learning initiatives. A framework exhibiting all the E-learning environmental components and their interactions in veneration to e-learning implementation readiness utilized in this study is shown in Figure 1 below.

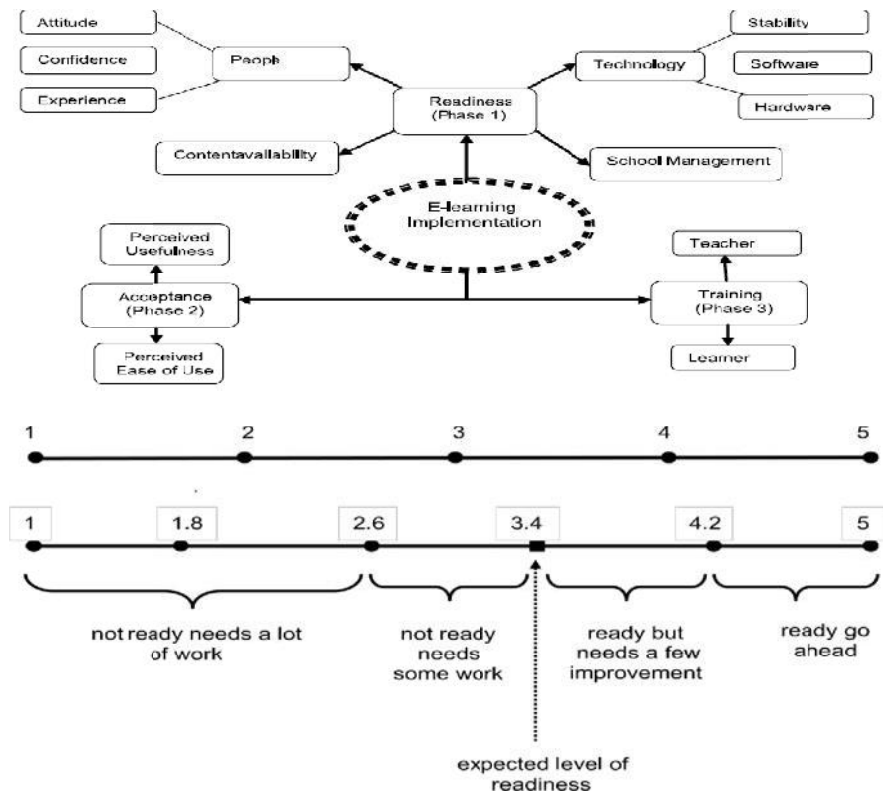


Figure 1. Framework for assessing the level of readiness to implement e-learning (Akaslan & Law, 2010).

Methodology

The study adopted a descriptive survey design to establish and determine the level of readiness to implement e-learning in secondary Central Colleges. The study involved principals, teachers and students as the key e-learning adopters. The target population consisted of ten Central Colleges in Kegalle and Gampaha districts in Sri Lanka which received ICT infrastructure funding from the government. A census was done on principals strata while a multi-staged random sampling using PPS (proportionate to population size)

was applied to students and teachers. Questionnaires were printed and issued to 196 students, 107 edifiers and 10 principals from which 170 students, 72 edifiers and 10 principals consummated and returned the questionnaires which were utilized in the study. Those questionnaires composed the substratum from which analysis and discussions were made on the subsisting level of e-learning implementation readiness.

Survey Analysis and Results

Demographic Profile

Three female principals and seven male principals participated in the study. Seven principals were between 40-49 years old while three were between 50 -59 years. Four principals hold post graduate diploma qualification and six principals hold bachelor degree. The teachers' respondents comprised of 15.3 percent female and 84.7 percent male. Thirty two percent of the edifiers were aged between 20-29 years, 31.9 percent were between 30-39 years, 15.3 percent were between 40-49 years and 8.3 percent were aged between 50 – 59 years. Out of the one hundred and seventy students who participated in the study, 76 (44.7 %) were female and 94 (55.3 %) were male. Of the students who participated in the study, 34 (20 %) were in 10th Grade (form two), 94 (55.3 %) were in 11th grade (form three) and 42 (24.7 %) were in their 12th Grade (forth form). The study left out student in 9th Grade (form one) as they had not reported by the time data was amassed.

Level of e-learning Readiness

Teachers' level of dealings with computers (e-learning systems) is dependent on their technical competency and computer literacy. Teachers were requested to respond to 11 questions that quantify their technical competency towards e-learning on a 5–point Likert Scale ranging from 'strongly disagree (1)' to 'strongly agree (5)'. Mean and standard deviation were calculated to decide the trends in the responses and compared to the generic scale below:

Table 1. The Scale and Indication of Means

Means	Scale
0 - 2.6	not ready, needs a lot of work
2.6 - 3.4	not ready needs some work
3.4 - 4.2	Ready but needs a few improvements
4.2 - 5	Ready to go a head

The study tested respondents on the following fundamental computer operations in an e-learning environment: printing documents, surfing the cyber world, preserving documents, sending and receiving email, restarting a computer, beginning an incipient document and switching off a computer. The general level of experience in handling these fundamental computer operations was analyzed and it was evident that edifiers have expected level of readiness to perform most of the fundamental computer operations required to commence e-learning implementation in secondary Central Colleges.

Table 2. Means and Standard Deviations in the Technical competency (N= 72)

No.	Statements	Mean	SD
T31	I can print a document.	4.07	1.34
T32	I can open a Web address directly	3.79	1.34
T33	I have the basic skills for finding my way around the Internet (e.g. using search engines to research materials).	3.99	1.32
T34	I can use "save as" when appropriate.	4.17	1.26
T35	I can save text contents off Web pages to a disk.	3.49	1.50
T36	I can open a previously saved file from any drive/directory.	3.99	1.45
T37	I know how to send and receive e-mails messages; and I can send an e-mail with a file attached.	3.54	1.58
T38	I can restart a computer.	4.33	1.11
T39	I can begin a new document.	4.19	1.25
T40	I can use a browser such as Mozilla or Explorer to navigate the World Wide Web.	3.71	1.54
T41	I can switch a computer on.	4.51	0.98

From table 2 above, edifiers had adequate skills to utilize the cyber world resources (MT32=3.79; MT40=3.99; MT33=4.17; MT35=3.99 > Melr =3.41), manage documents within a computer system (MT31=4.07; MT36=3.54; MT34=3.49 > Melr =3.41), communicate by e-mail (MT37=4.33 > Melr =3.41) and manage computer system (MT38=4.19; MT39=3.71; MT41=4.51 > Melr =3.41). The esse of above level of literacy among several edifiers makes it practical to commence e-learning implementation process in Central Colleges. However, it was observed that opening a file affixed to an electronic mail (T37) and switching a computer on (T41) are the only operations which most edifiers were able to perform as reflected by the weighted mean (MT37=4.33; MT41=4.51 > 4.2) above 4.2 which is a denotement of 'ready to go'. Therefore, edifiers have indispensable technical skills required for e-learning adoption but a few amendments are essential in equipping them with ICT skills for prosperously e-learning implementation.

Time wastage and frustrations while utilizing computers are designators of incompetency and illiteracy which were observed as barriers to e-learning implementation in Central Colleges. Majority (48.8 %) of the surveyed edifiers do not consider themselves to be very competent with computers and 47.2 % cerebrate otherwise. General observation from the study demonstrate that the edifiers are skeptical of their competency as betokened by the likert mean score (MT46=2.88). Similarly edifiers are skeptical (MT44=2.65) whether they find working with computers very discombobulating or not. However, it was pellucid that the edifiers feel that they (MT45=1.92) do not waste an abundance of time struggling with computers and are not frustrated while working with computers (MT47=1.57). Though the study revealed some level of competency among the edifiers, they require further training to boost aplomb and minimize time wastage, frustration, and mystification while utilizing computers.

Teacher Training

Training all edifiers in utilizing ICT for themselves and in the classroom requires training in two major programs: ICT Skills and Application of ICT in Curricula. Successful implementation of the two programs depends on teachers' disposition to learn about e-learning and computers, training availability to learn ICT, and credence in the consequentiality to learn how to utilize computers. Out of the 72 edifiers who participated in the study, 55 (76.4 %) had attended some kind of computer training course while 17 (23.6 %) have never attended a computer training course. It is paramount that e-learning is embraced by all edifiers and the study established the factors that directly affect learn about e-learning and computers. It was established that most (73.6 %) edifiers vigorously concur and 25 % of edifiers accede that it is paramount for them to learn how to utilize computers (MT22 = 4.71). The edifiers vigorously concur that they are disposed to learn about e-learning and computer.

However, the challenge appears to be lack of training availability to learn technology as denoted by weighted mean of 3.82. The study ascertained that majority (MT18 = 4.13) of the edifiers would relish their school to send them on a course on utilizing e-Learning afore they can commence utilizing it. Despite edifiers inclination to attend training on e-learning, the study showed (MT11=3.82) that there is lack of training availability to learn technology. Most of the principals (MQ25=4.80) have a vigorous will to send their staffs to a course on utilizing e-learning afore edifiers start utilizing it. However, the principals additionally attested (MQ20=3.50) substantiated the lack of training availability to learn technology. Thus, as secondary Central Colleges embrace e-learning, germane e-learning training facilities and opportunities must be availed to edifiers for prosperous e-learning adoption.

Teachers' Confidence in Handling Computers

Fear of utilizing technology can be a barrier to adoption of the technology. Edifiers' selfconfidence in doing ICT tasks and activities was tested during the study. Edifier's confidence in handling computers was resolute by rating their confidence in computer utilization ability, computing skills and elongate to which they relish working with computers. The findings show that edifiers exhibit high caliber of confidence in working with computers. Most edifiers (MT42=4.514) vigorously acceded that they relish working with computers and additionally acceded (MT43=3.861) that they are very confident in their abilities to utilize computers as well as self-approval (MT48=3.542) of computing skills. The tested factors reveal that the confidence level in handling computers is adequate (Maverage=4.11). However it is evident from the mean scores of T43 and T48 that edifiers computing skills meet expected e-learning readiness levels but below the 'ready to go' level of 4.2.

Technical Competency and Computer Literacy among Students

Students need experience and some level of competency in ICT systems for efficacious utilization of ICT in learning. It was observed that out of the 170 students surveyed, 130 (76.5 %) had no prior experience with computers, 25 (14.7 %) had utilized computer for a period of 1-2 years, and 15 (8.8 %) had utilized computers for 3 years and above. It was

established that 110 (64.7 %) of the students surveyed have never taken any subjects in computers in school against 60 (35.3 %) who have at onetime taken a computer subject. It was noted that computer studies is not compulsory for all students but paramountcy of e-learning accentuated should be made for every student to be introduced to computers. Internet experience among students is very constrained as 123 (72.4 %) students have no access to Internet while at school against 47 (27.6 %) who verbalized they utilize computers connected to the Internet. The study revealed that 112 (66.3 %) respondents had no experience in utilizing digital content stored in CDs to supplement their study against 57 (33.7 %) students who utilize CD-ROMs to supplement their cognition. Most of the students who participated in this study vigorously concurred (MS12=4.858) that they believe it is paramount for them to learn how to utilize computers. This was a clear designation of high caliber of readiness within the student community to embrace ICT. Most edifiers concurred (MT10=4.069) that low computer literacy level among students is barrier to implementation of e-learning. Similarly, the principals concurred (MQ18=3.60) that lack of computing skills among students is another obstacle to e-learning adoption. Lament their cognition.

Students' and Teachers' Attitude and Perception towards the Use of e-learning

As one of the research objectives, the study investigated the students' posture and perception towards technology. Attitudes and perceptions towards a technology in generally derived from perceived ease of avail and perceived usefulness of that technology.

Students' Attitude and Perception towards Technology

Would be users of technology feel uneasy and threatened when others verbalize about the adoption of such technology. Perceived arduousness in utilizing a technology can result into anticipated frustration during technology adoption. Most students disaccord (MS11=1.871) that they are threatened when other verbalize about computers. Similarly majority of the students disaccord (MS18=1.600) that computers are arduous to utilize and further disaccord (MS15=1.582) that utilizing computers will be a frustrating experience them. It was generally observed that computers are perceived by the student as facile to utilize since form (M = 1.684). However, measures should be taken to transmute the perception of those students who feel computers are arduous to utilize, frustrating and threatening.

Perceived Usefulness of technology can makes people adopt systems hence the study additionally tested items cognate to perceive usefulness of avail of computers among students and the results designate that most student accede (MS13=4.294) that they would relish to utilize computers in the classroom and vigorously concur (MS14=4.841) that computers can make learning fascinating. They further vigorously accede (MS16=4.568) that their cognition can be ameliorated by utilizing computers. While a more diminutive number of student were neither disposed to utilize computers in classroom, nor cerebrate that computers can make learning intriguing nor believe that their cognition can be ameliorated by utilizing computers, they perception cannot be ignored during e-learning implementation and compulsory sensitization is obligatory.

Teachers' Attitude and Perception towards Technology

Perceived Usefulness

As key stakeholders in the e-learning implementation, teacher's perceived usefulness of e-learning and computers are somehow cognate to the adoption of the e-learning technology. To establish their perceived usefulness of the technology, the three factors were given to them for consideration and their replications showed that most edifier dissent (MT17=2.46) that they would utilize e-Learning only if am required to. The edifiers vigorously accede (MT27=4.57) that their edification can be amended by utilizing computers and most of them vigorously accede (MT27=4.75) that computers can make learning fascinating. From the replications above, it can be deduced that edifiers perceive the usefulness of computers in learning.

Perceived Ease of Use

A technology perceived by users to be facile to utilize is liable to be adopted by the users. The study investigated the teachers' perception on the facileness of avail of computers by asking the edifiers to give their opinions on the set of factors. It was observed from the table above that most edifiers disaccord (MT27=1.89) that computers are arduous to utilize (91.7 % of edifiers dissent that computers are arduous to utilize and 93.1 % of edifiers feel comfortable utilizing computers. Similarly, 77.8 % of the edifiers dissented (MT26=1.49) that it will not be facile for them to utilize computers for edifying. It was additionally found that pedagoga majority of the edifier vigorously accede that they feel comfortable utilizing computers. However it is consequential that the plight of the diminutive number of edifiers who get arduousness in utilizing computers is addressed by trainings and seminars.

Principals and Teachers Approach to the Integration Technology in Learning

The study sought to compare the old approach of edifying to the incipient technology enabled learning, teachers' readiness to integrate the technology in their edification, the congruousness of introducing technology at secondary school level, and teachers' feelings regarding students' readiness for the technology. The findings are as revealed that most edifier concur (MT15=4.40) that the technology enabled way of edifying and learning is the best. The findings corroborates that most edifiers (MT20=4.67) vigorously concur that they yare to integrate computers in their edification. Majority (MT25=4.67) of the pedagoga cerebrate that e-learning is opportune at secondary Central Colleges and they concur (MT28 = 3.93) that students are yare for e-learning. This is a denotement that they edifiers are inclined to utilize technology enabled learning. Though fewer edifiers not exuberant about e-learning, most teachers' posture towards e-learning is that they are yare (Maverage=4.42 > Melr =3.41) for e-learning implementation in their Central Colleges.

The study further established the posture of principals concerning e-learning implementation with venerations to whether it is the right time to promote e-Learning in their school interest, edifiers disposition to utilize incipient technology in the classroom, principals readiness for integrating e-learning in their Central Colleges and helpfulness of e-learning in ameliorating edifying and learning was reflected. The principals vigorously concurred that it is the right time to promote e-Learning in Central Colleges , they are yare

for integrating e-Learning in their Central Colleges and withal celebrate e-learning is auxiliary to ameliorate edifying and learning. The principals concur that both students and edifiers are inclined to embrace e-learning in classroom.

Discussion

The findings from the study demonstrated that most edifiers could confidently operate computers with minimal time wastage, constrained frustration and less discombobulation. From readiness quantifying model, this was adequate level of readiness to implement e-learning but needs a few amendments are needed. Edifiers had the obligatory technical skills required for e-learning adoption but amendments are essential in equipping them with ICT skills for prosperous e-learning implementation. The study designated that edifiers are willing and yare to acquire computing skills as illustrated by readiness level of 3.82. This calls for the regime and germane inculcation stakeholders to organize ICT training opportunities to enable practicing edifiers develop their technical skills for e-learning adoption in Central Colleges.

The technical experience and computer literacy between students was found to be very low. About 77 % (130) of the students had no preceding experience with computers and only 35 % of the surveyed students have taken computer studies as a subject. Computer study was not compulsory for all students but every student needs rudimentary computing skills for the adoption of e-learning. Most of the students who participated in this study vigorously acceded and believe it is paramount for them to learn how to utilize computers which is a clear designation of high caliber (MeanS12=4.858) of readiness to embrace e-learning. The study revealed that students are not threatened by technology as most of them felt that computers are not arduous to utilize and would not frustrate them. With students' perceived usefulness of technology in class corroborates that students are yare to go on with e-learning. Students believed that computer will amend their cognition and make learning intriguing.

Conclusion

This study has raised a number of issues that are consequential to the prosperity of e-learning initiatives in Central Colleges. It may be concluded that edifiers, principals and students are moderately yare for e-learning, and that there are individuals who may need to be acculturated into the e-learning system afore they can be verbalized to be at the expected state of readiness for e-learning. Further, the study had shown that policy makers and other edification stakeholders have a crucial role to play in enhancing more preponderant engagement in a technology-driven edifying-learning environment. There is desideratum for change of mindset that presence of computers in Central Colleges is a bespeaker for e-learning adoption, but how yare the learners are able to utilize them in an enabling environment. Otherwise, regardless of positive effects of technology on student learning, technology may remain constrained in utilization and it is unlikely to be an efficacious instructional implement unless e-learning implementation readiness is given priority.

Finally, to affluent implement e-learning in Central Colleges, this study recommends the formation of a policy framework on strategic e-learning implementation mainstays. The regime should develop wide-ranging framework of e-learning adoption in Central Colleges. Though Teachers Service Commission is collaborating with edifier training institutions to develop specialized human resource capable of implementing e-learning in Sri Lankan Central Colleges, robust e-learning policy will be instrumental in addressing its implementation challenges. Teachers' and students' ICT capability need to be augmentation through in-accommodation teaching for edifiers and compulsory computer trainings for all students.

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