Information Communication Technology (Ict) As A Factor In Knoweldgy Creation In Educational Institution State Of Utter Pradesh

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ABSTRACT

Information and communication Technology (ICT) is an essential factor in knowledge creation towards effective academic performance in educational institutions. Knowledge and access to ICT determine the extent of contributions, performance and impact towards students' acquisition of enhanced knowledge and skills. The study adopted a descriptive survey research design, using stratified random sampling technique, 200 students were drawn from a population of 2,200 students in two tertiary institutions in U.P. state of India. Data collection was carried out using ICT in knowledge creation questionnaire (ICTKCQ). Four hypotheses were formulated and tested using Pearson Product Moment Correlation Coefficient statistical tool at 0.05 alpha level and 198 degrees of freedom. Result obtained revealed that availability of ICT materials enhances students academic studies, ICT knowledge significantly influenced students academic performance level. There is a significant relationship between the role of ICT and knowledge creation in students. It was recommended that ICT materials should be provide, while students should be exposed their use. Also ICT trained personnel should be used in teaching the students for effective academic performance

Keywords
Information, Communication, Technology, Knowledge, Uttar Pradesh

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Introduction

In the United Kingdom, Microsoft, Comtel and international Hub which connects homes and schools via the internet the parents are able to send email to their children are working and electronically converse with teacher. UNESCO is developing a large distance education project to help eight countries that train teachers and principals unreached by traditional training. The project was launched in 1999 an expected to train half o f the teaching staff in five selected countries in 1998. In Australian, the faculty of education at the University of Wollongong in linking teachers and post graduate student directly gives lectures through email network and provides on line support to teacher in school.

ICT in education in India With the establishment of Tata Group in partnership with Burroughs, India's computer services industry was born in Mumbai in 1967. The first software expert zone SEEPZ was set up in 1973. The Indian government acquired the computers from the Soviet Union, which were used in large companies and research laboratories. The National Information Center was established in March 1975. The inception of the computer maintenance company (CMC) followed in October 1976. During 1977-80 the country's information technology companies Tata InfoTech, Patni Computer System and Wipro had become visible. The microchip revolution of the 1980s had convinced both Indira Gandhi and his son Rajiv Gandhi that electronics and telecommunication were vital to India's growth and development. Direct employment in computer and internet services was 2.3 millions in 2009-10 and reached nearly 2.5 million by the end of year 2011. Internet services have been offered in India by Videsh Sanchar Nigam (VSNL) since 1995; these services were offered initially from the four metros of Mumbai, New Delhi, Calcutta and Chennai they were found excellent demand and were soon expanded to cover a network of 42 nodes being operated by the Department of Telecommunication (DOT) and VSNL in 1998. Internet growth in the India mirrors the trend worldwide, with the service being the fastest growing segment of the telecommunications sector in India 6th November 1998 by the opening of the ISP, some of most remote corner of India being connected to the internet, and the base of internet services exponentially.

In the year 2007 people in India have started to realize of computer and internet in their lives where it is not just a communication but has become and enabling tool perform various tasks over internet like E-learning, E-library, and E-books. Looking at the Indian population from the perspective of internet exposure a significant increase in expected.

Information in a simple parlance is data that have been processed, analyzed, interpreted and made meaningful to the recipient of the message. IT consists of facts, which provide energy for problem solving and rational decision making. The significant element in information is knowledge creation through messages which is expected to be accurate, acceptable and reliable for consumption. Information and communication technology (ICT) has great potentials for education. Advanced and developing communities in the state have attested to the fact that ICT is a central focus for the educational polices, for use and integration in school curriculum towards effective academic performance of students.

Its unique features and role in knowledge creation has to an extent made significant contributions to students learning and acquisition of skills. ICT utilization in schools is an

ideal, commonly desired for effective technology and learning in a virtual classroom situation where students can have access to teaching instructions via electronically transmitted channel.

Regrettably, ICT devices such as Micro-electric devices, Satellite, software package, Laptop, computer accessories, local areas Network and Internet are mostly found in business centers all over the cities for commercial proposes, whereas, very few are actually installed and functional for students use in our educational institutions. Only very few department have ICT studies in their curriculum and school timetable. By so doing ICT devices are out of reach to many students, and hence they are unable to perform well academic in course that required the use of ICT devices and knowledge.

It can also be argue that ICT devices and networks, knowledge created is a critical resource for development of students, and so, the fundamental challenge is for educational institutions to organize academic work with students' advancement and achievement in their academic pursuit through the use of ICT knowledge for effective academic work.

It can also be argue that as the world changes, information and knowledge created by technological revolution is also changing rapidly. Teaching and learning processes as well as the management of schools have changed. The use of information communication and technology (ICT) has improved education quality, expand students' academic studies opportunities and make education accessible at higher levels to majority of India. It is as a result of these advantages that India educational reforms towards effective student's academic performance have stressed the use of ICT in schools.

Methodology

The study adopted the descriptive survey research design. The design enabled the research to gather existing data at appropriate time for the study. The population comprised all the (4) tertiary education institutions in State Uttar Pradesh, out of this population, a simple of two (2) tertiary education institutions were taken and selected for the study (one state university and one college of education) out of 2000 lecturers in both educational institutions, 200 lecturers made up of 100 lecturers from the state university and 100 lecturers from college of education were selected for the study using stratified random sampling technique. The lecturers were the respondents in the study.

The instrument used to collect data for the study was a self-designed questionnaire titled; Information communication Technology in knowledge creation and effective Academic performance of student (RICTKCEAPQ). The questionnaire was in two parts A and B. part A was demographic IT elicited information on personal data relating to the institutions. Part B consists of 4 sections of twenty four (24) items. Section A elicited information on the level of utilization of the knowledge created by ICT, Section B elicited information on influence of the role of ICT in knowledge creation. Section C elicited information on the level of availability of ICT facilities and section D elicited information on the level of usage of ICT knowledge created.

The content validity was determined by experts in the Department of Mathematics, who examined the instrument to determine whether or not they measured what they supposed to measure. Their comments were used to effect correction in the instrument before they were administered to the respondents. The reliability of the instrument was determined using test- retest reliability techniques, which gave reliability co-efficient of 0.07 and 0.91 respectively. The data collected was analyzed using Pearson product Moment Correlation Coefficient.

Results

Hypothesis 1

There is no significant relationship between the level of utilization of ICT Knowledge and student's academic performance.

Table 1

Pearson Product Moment Correlation coefficient of the Level of Utilization of ICT Knowledge

Variable	ΣX ΣY	ΣXY ΣY²	ΣXY	R
Level of utilization of ICT Knowledge	2160	23120		
Student Academic Performance	25080	2080	22200	0.66

P<.05, df =198; crit r = 0.195; cal r =0.66.

The result obtained from the table revealed that the calculated r value = 0.66 which is higher than the critical r value of 0.195 at 0.005 level of significant and 198 degree of freedom. Thus the null hypothesis was rejected and the alternative is accepted. This means that a significant relationship exist between level of utilization of ICT knowledge and students academy performance.

Hypothesis 2

There is no significant relationship between the role of ICT in knowledge and students academic performance.

Table 2

Pearson Product Moment Correlation coefficient of the Relationship between ICT Role in knowledge Creation and Students' Academic Performance

N=200

Variable	ΣX ΣY	ΣXY ΣY²	ΣXY	R
Role of ICT in Knowledge Creation	2150	25070		
Effective Students Academic Performance	2080	23110	22200	0.66

P<.05, df =198; crit r =0.195; cal r =0.66

From the table above, it shows that calculated r value of 0.71 is higher than the calculated r value of 0.71 is higher than the critical r value of 0.195 at 0.005 level of significance at 1.96 degree of freedom. Since the calculated r value as higher than the critical r value, the null hypothesis is rejected while the alternate one is upheld. That means that a significant relationship exist between role of ICT in creating knowledge and effected students academic performance.

Hypothesis 3

There is no significant relationship between availability of ICT facilities and students academic performance.

Table 3

Pearson Product Moment Correlation coefficient of the Availability of ICT Materials and Students Academic Performance

Variable	ΣX ΣY	ΣX^2 ΣY^2	ΣXY	R
Availability of ICT material Student Academic Performance	3264 3754	6694 6895	89842	0.53

*Significant at 0.05 level, critical r=.138 calculated r=0.53 df = 198.

The result of the analysis as presented in Table 3 above indicates that the calculated r-value of 0.53 is higher than the critical r-value of .138 at .05 level of significant with 198 degree of freedom. Thus with this result, the null hypothesis was rejected. This result implies that availability of ICT material has a significant relationship with effective academic performance of students.

Hypothesis 4

There is no significant relationship between usage of ICT knowledge and students academic performance.

Table 4

Pearson Product Moment Correlation coefficient of the Usage of ICT knowledge and Students Academic Performance

Variable	ΣX ΣY	ΣX^2 ΣY^2	ΣXY	R
Usage of ICT knowledge Created Effective Academic Performance	3264 3754	6694 6857	89758	0.57*

*Significant at 0.05 level, critical r=.138 calculated r=0.53 df = 196.

The result of the analysis as presented in Table 4 above show that the calculated r-value of 0.57 is higher than the critical r-value of .138 at .05 level of significant with 198 degree of freedom. From the result, the null hypothesis was rejected. Thus means that the usage of ICT knowledge by students has significant relationship with effective academic performance.

Discussion Of Findings

It is very clear from the findings of this study that there is a significant relationship between the extent of utilization of ICT knowledge and students academic performance. The level of the use of information and communication Technology in the teaching and learning is still very low. The learners merely utilize the available information methods network devices such as telephone, fax, E-mail typewriter etc. that has been in vogue to study. The use of electronic machine and computerized information technology is grossly inadequate and poorly applied. There is a slow rate of acceptance of the new knowledge created by ICT. This is in line with the opinion of U.P (2008), that 90% of students of state and college of education institutions do not have computers for internet connectivity. He stressed further that the utilization of electronic computerized networks of information technology in state university and colleges of education is yet to gain popularity; this has affected the academic performance of their students.

The result of hypothesis 2 shows that there is a significant relationship between ICT and knowledge creation towards supporting studies. This finding is in line with all India council for technical education (AICTE) reported which emphasized the relevance in the advances in information technologies which has helped to strengthened further the link in academic programmer of students as a source of knowledge revolution. In addition, this findings is in agreement with U.P submission that ICT network devices such as computers, internet connectivity etc. can be applied to applied to transfer knowledge, curiosity and positive self knowledge, lack of application of the knowledge created by ICT data processing activities affects, students academic performance.

The finding of hypothesis 3 shows that inadequate ICT facilities/Materials are major constraints to the effective usage and performance of students. The issue is that many facilities and departments are deficient in the availability of information communication and technology, ICT equipment and facilities. This finding was consistent with the findings made by which indicated that ICT equipment for effective learning is deficient. It is pertinent to note that ICT materials are indispensible for effective academic performance of both schools and students.

The outcome of hypothesis 4 revealed that the findings indicate a low level of usage of ICT knowledge created through information networks in support of students' academic work. This has been attributed perhaps to lack of students' access to ICT materials, frequent experience of epileptic power supply which has continuously hindered the growth of ICT knowledge towards students' academic studies, also lack of funding ICT programmers for student benefit.

Conclusion

Based on the findings of this study, it was concluded that U.P. State government of India should intensify her effort towards provision of Information Communication and Technology ICT for effective Administration of tertiary institutions. It is generally disturbing to note that the level of ICT in UP State higher educational institutions is very poor

due to insufficiency of infrastructural materials, poor electricity supply, poor finding and attitude of students towards ICT inventions. The findings have led the researcher to conclude that the provision, utilization and adaptation to the usage of ICT knowledge are significantly related to effective management of schools vis-a- vis effective students' academic performance.

Recommenddations

Based on the conclusion, the following recommendations are made:

1. Free and compulsory ICT services should form part of students general studies programmers in the state tertiary institutions of learning to provide students with practical and functional knowledge of ICT network devices. Basic knowledge of ICT services should be a pre- requisite for the award of any certificate.
2. The state government should vote special fund and invest honestly for successful utilization of ICT knowledge by students for effective academic work.
3. The current school curriculum should review to reflect of ICT application communication and acquisition of skills students.
4. Schools should be provided with appropriate and adequate infrastructure and instructional facilities of ICT to promoted effective and efficient student training and performance.
5. Provide opportunities for cooperation with colleagues through networking and internet services.
6. ICT cannot be operated to create knowledge without reliable power supply. There is an urgent need for government to handle and resolve the energy crisis so that the goal. ICT compliance can be achievable.

All tertiary institutions should be fully digitalize and make them ICT complaint and relevant to students academic studies.

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