

A study of Impact of ICT implementation on Development of Teachers ICT skills

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Abstract:- The research purpose behind this research paper is to make an honest attempt to assess the impact of ICT implementation on development of Teachers ICT skills in management institutes. The present paper also examines the relationship between the implementation of information and communication technologies (ICT) and development of Teachers ICT skills. For the present study, 50 teaching staff of selected management institutes was selected and a structured questionnaire was administered. After collection data, it was tabulated and analyzed to study the impact of ICT on development of teacher's skills. At first, study focuses on the effects of ICT on development of teacher's ICT skills. Since teacher's skills are mainly explained by a teacher's characteristics, educational environment and students feedback. ICT may have an impact on these factors and subsequently the outcome of content delivery in management education. The difference observed in development of teacher's ICT skills does not depend on availability of ICT infrastructure in the institute. The present study also focuses on usage of ICT need a change in approach of management institutes. While ICT infrastructure and usage rates are growing very rapidly in the present era of technological development, the inclusion of complementary ICT training to teacher's to acquire the skills requires to use ICT applications to the extent of delivery of quality educational content to the students, especially of management institutes. The organisational designs of ICT implementation is having differences from institution to institution, hence the observations of present study reveals that it affects the development of ICT skills of teachers in management institutes. It explains the observed differences in teachers' ICT skills set development.

Keywords: ICT, teacher's skills, management education, ICT infrastructure.)

Index Terms—cloud computing, e-learning, (key words)

INTRODUCTION

Any Educational institute always runs with the objective of transferring knowledge to learners by every possible way using all types of mediums available. Information and Communication Technology [ICT] has the potential to play a vital role in every educational institute's teaching – learning process. Implementation of ICT has an impact on some key areas such: redesign and presentation of curriculum, uses of available resources and the way current activities of teaching-learning process are being reconfigured.

As management institutions of higher learning involved in the education of current and future managers, we are committed to engaging in a continuous process of improvement with the help of principles and their application, reporting on progress to all our stake- holders and exchanging effective practices with other academic institutions such as, developing the capabilities of students to be future generators of sustain- able value for business, incorporating into academic activities and curricula the values of global social responsibility, to create educational frameworks, materials, processes and environments with the help of technological advancements that enable effective learning experiences for responsible leadership, engaging in conceptual and empirical research that advances our understanding about the role, dynamics, and impact of corporations in the creation of sustainable social, environmental and economic value, interacting with managers of business corporations and facilitate dialogue between stakeholders.[1]

Information and Communication Technology (ICT):

Information and communications technologies (ICT) are a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. Communication and information are at the very heart of the educational process, consequently ICT-use in education has a long history. ICT has played an educational role in formal and non-formal settings, in programs provided by governmental agencies, public and private educational institutions, for-profit corporations and non-profit groups, and secular and religious communities.[2]

The advantages of ICT implementation in education are integration of multiple media, interactivity, usage flexibility, better connectivity, new pedagogical methods, remote resource access, enabling collaborations amongst online experts to deliver best possible knowledge to learners, etc. There are some difficulties faced in implementing such innovations, and due to rapid evolution in technologies, the present technology used for ICT implementation in education may quickly become outdated. [3]

Continuous development of teaching staff also plays an important role in successful teaching learning process. By implementing ICT in any educational institute will automatically helps teachers to update them with increasing usage of ICT infrastructure. Development of teachers ICT skills is ICT depends upon various factors, which are needed to take into considerations to achieve a greater and effective impact of ICT on development of teacher's ICT skills.

This study aims to undertake a research study being carried out in selected management institutes from western Maharashtra to assess the impact of ICT implementation on development of Teachers ICT skills.

I. Review of Literature

Review of relevant literature, an important factor in research process. In early stages of research process, it helps to present an authoritative statement explaining the need of the research.

François Larose et al (1999) presented relatively extensive review of the literature on the epistemological issues in their research study entitled "Information and Communication Technologies in Educational institute Teaching and in Teacher Education: Journey in a Major Québec Educational institute's Reality " that underlies the integration of information and communication technologies (ICTs) in educational institute teaching. On one hand, researcher observed that the presence of an ideological trend portraying the integration of ICTs essentially as a way to render educational institute operations more profitable, allowing for the increase of

teacher/student ratios through larger-sized classes, published in *Electronic Journal of Sociology*.^[4]

Asifwe Collins Gyavira Rubanju (2002), in his article reviewed the impact of ICT on Educational institutes: Classroom/Lecture theatre Design and Curriculum Delivery. Researcher found that Information and communication technologies are beginning to have an impact on curriculum and classroom/lecture room design in each of the three educational institutes visited. However there was still need of transformation of the traditional lecture room design and curriculum delivery methods to those where ICT will be a necessity. The use of the information gained during this research was directed to drive organizations and individuals towards differing solutions in response to the needs of their students and learning communities. It was important that educators and administrators collaborate and learn from the mistakes, discoveries and best practice from other educational institutes and researchers. It has also been noted that where rigorous examination systems and prescribed learning outcomes control the curriculum, it was much harder for innovative use of technology in the curriculum to occur.^[5]

II. Research Methodology

The management institutes located in Western Maharashtra includes those situated over the western region of the state of Maharashtra. There are more than 250 management institutes functioning in the western Maharashtra. For the present study, researchers has selected 50 teachers from these management institutes. In order to obtain the information about impact of ICT implementation on development of teachers ICT skills, a first round Delphi questionnaire was given to these selected 50 teachers from different management institutes personally and requested to provide information as per the questionnaire. In this way, the information was gathered in first phase of Delphi Method of data gathering. Researchers are intended to follow two more rounds of Delphi questionnaire to study further, in depth analysis about impact of ICT implementation on development of teachers ICT skills. The present paper is outcome of the first phase of this study.

In first phase of the study, responses to various queries were on five point scale arranged in a particular order that revealed the possible impact of ICT on development of teachers ICT skills. After collecting response from respondents, a simple tabular analysis was carried out to find out the result. In the viewpoint of the fact that responses were give on five point scale, with respective weight age from one to five, data is tabulated and analysed according to the classes of responses.

From the result of first round of questionnaire, researchers are planning for the second round of questionnaire, which will be again circulated to the respondents and data will be collected. After collection of data in second round of questionnaire, first weighted mean of each section in ICT skill development will be calculated, following by overall mean in the respective skill set. The weighted mean will be found by picking up the proper value of the response in a particular level on the five point scale. After that, dividing by total value of the levels, (say sum of 1 to 5), multiplied by the number of questions in the group. This will be repeated for all the groups for faculty members of the selected region. The Pearson's Coefficient of Correlation of each group with the Performance Indicator group will be given in a tabular format and impact of ICT implementation on teachers ICT skills will be analysed with the help of in-depth statistical analysis.

IV. Results and Discussions:

This section of this present research paper reveals initial findings from this research study.

1. Number of years in Teaching using computer / ICT:

How many years you are using computer/ ICT in Teaching	Less than 1 year	1 -- 2 Years	3 -- 4 Years	More than 4 Years
No of response	8	10	15	17
Percentage:	16 %	20 %	30 %	34 %

From above figures, it has observed that, teachers with more than 3 years of experience are more favorable for use of ICT in teaching.

2. Number of Lectures per week conducted using ICT:

How many lectures per week you conduct using ICT infrastructure	1	2 – 5	6 – 9	More than 10
No of response	4	30	12	4
Percentage:	8 %	60 %	24 %	8 %

From above figures, it has observed that, maximum no. of teachers are conducting 2-9

lectures per week using ICT infrastructure implemented in the institute.

3. ICT Infrastructure availability in institute[Usage Ratio]:

Accessories	Availability Yes	Availability No	Access Yes	Access No
Computer	42	8	38	12
Laptops	13	37	05	45
Printers	35	15	07	43
Over Head Projector	46	4	45	5
LCD Projector	43	7	40	10
Multimedia projector	6	44	2	48
Internet Facility in Classroom for Teachers	12	38	6	44
Video conferencing	2	48	2	48
Video downloading	6	44	4	46
Network sharing for e-resources	17	33	12	38
Social networking Access	8	42	6	44

From above figures, it has observed that, access to the available ICT infrastructure differs from institute to institute.

V. Summary and conclusions:

In the nutshell, it is observed from the primary investigation, based on data collected in first round of questionnaire, that there is positive impact of ICT on development of teacher's ICT skills. Impact of ICT implementation and awareness amongst teachers does have an impact on curriculum delivery in management education. There is no dependant relation identified between development of teacher's ICT skills and availability of ICT infrastructure in the

institute. It is also observed that provision of ICT training to teacher's to acquire the skills requires to use ICT applications will be helpful for teachers. The institute level designs of ICT implementation is having differences from institution to institution, hence the observations of present study reveals that it affects the development of ICT skills of teachers in management institutes. It explains the observed differences in teachers' ICT skills set development.

6. References

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