

Impact of ICT Implementation on Development of Student's ICT skills

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Abstract— The research purpose behind this research paper is to make an attempt to assess the impact of ICT implementation on development of student's 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 students of selected management institutes were selected and a structured questionnaire was administered. After collection data, it was tabulated and analysed to study the impact of ICT on development of student's skills. At first, study focuses on the effects of ICT on development of student's ICT skills. Since student's skills are mainly explained by student's characteristics, educational environment and student's 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 student'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 students 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 are 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 students' ICT skills set development.

Keywords— ICT, Administrative processes, ICT skills, ICT infrastructure.

I. INTRODUCTION

Information and communication technology is a well known concept in the most of the developed and developing countries in the world. ^[1] ICT plays significant role in teaching and learning process and is widely accepted innovations in the recent education policies worldwide. Apart from the role of ICT in teaching and learning process, it plays an important role in improving organisational performances. ^[2] Many research studies have revealed that ICT has varied impact on student's development, research studies, data gathering, library systems, curriculum development, record keeping, administration and planning of an educational institute. ^[3]

Quality of information and communication technology applications is now becoming more important for effective decision making and improving modern organization's ability to achieve the goals. ^[4] Various research studies revealed that availability and use of ICT, would decrease cost, and increase capabilities. ^[5] The use of ICT in administration always helps in to increase efficiency of administrative processes, ease the administrative burden of staff and student, improves performance of the institute leading to better administration of any educational institute. ^[6]

II. REVIEW OF LITERATURE

Review of literature is concerned to the study of previous research work in the field of chosen research problem and other problems related to sugar industry. This is one of the most important components in the research process, which introduces research gaps as well as the research process to a researcher.

Asifiwe 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. ^[7] Areti Valasidou (2008) in his research study on topic "The impact of ICT 's in education: The case of Educational institute of Macedonia students." analysed how familiar are the students of international and political studies with the use of ICT's on and off campus. The second purpose of the

research was to examine the possible relationship between the use of ICT's and the gender and the students' performance (marks) at the "Introduction to Computers" module, a part of their programme of studies.^[8] The results revealed that male students are more favourable toward ICT usage and the students that scored high at the module "Introduction to Computers" were more likely to find that the use of ICT's help them at their studies with various ways. The educational institute academic and administrative personnel was highly recommended to find ways in order the students to be motivated and maintain positive student's attitudes to use ICT's.^[9]

III. 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 180 management institutes functioning in the western Maharashtra. For the present study, researchers have selected 50 students from two management institutes from Karad. 30 students from YMIM Karad and 20 students from SIM Karad are selected as respondents for the study. 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 student's 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. A score for each variable is calculated and researcher has studied the possible relationship between availability, usage of ICT infrastructure and development of student's ICT competency skills. For Availability of ICT infrastructure, a 10-point score is designed based on the availability of various ICT infrastructure in the institute. For usage of ICT, a 50-point score is designed based on the usage of ICT in classroom, project work, computer laboratory work, etc. For development of ICT skills, a 50-point score is designed to determine student's ICT skills such as basic operations of computer, managing files on computer. Students were also asked to give their opinion for possible relationship between ICT implementation in the institute and development of student's ICT skills. All responses collected are tabulated and necessary statistical analysis has been conducted.

IV. RESULTS AND DISCUSSIONS

This section of the research paper reveals findings about ICT infrastructure availability, usage of ICT and Development of student's ICT competency.

1. Availability of ICT infrastructure in the institute:

The factors considered for computing the score of ICT availability are Availability of Computers, Tablets, LCD Projectors, Interactive white boards, Digital Classroom, Audio-visual cell, seminar/conference room, Network connectivity, web portal, ERP implementation.

Sr.No.	Name of Institute	Score of ICT Infrastructure availability [Out of 10]
1	YMIM Karad	8
2	SIM Karad	9

Table 1. Availability of ICT Infrastructure in the institute.

The above table shows the computed ICT infrastructure score in each institute selected for the research study.

2. Usage of ICT in the institute

The factors considered for computing the score of ICT usage are access to ICT aids in classroom sessions using ICT, computer laboratory, presentations and seminar sessions, project works, assignment submission, e-learning resources like NPTEL, sharing learning resources by teachers, placement activities, webmail services, access to social networking for resource sharing.

A score for each institute is computed and displayed in the below table. (table 2)

Sr.No.	Name of the Institute	Score of ICT Usage [out of 50]
1	YMIM Karad	34
2	SIM Karad	32

Table 2. ICT usage score of the institutes.

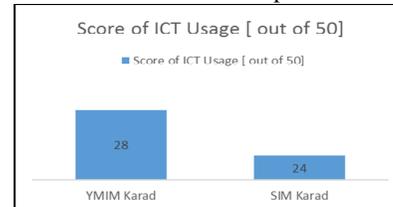
3. ICT Skills development

The factors considered for ICT skills development are basics skills of computers, managing files on computer, using word processors, spreadsheet software, presentations software, using emails, searching information on internet, access to e-learning resources, using social networking platforms for learning resource access and sharing by the students.

A score for each student in the institute is computed and aggregate score for each institute is computed and displayed in the below table. (table 3)

Sr.No.	Name of the Institute	Score of ICT Usage [out of 50]
1	YMIM Karad	28
2	SIM Karad	24

Table 3. ICT skills development score of the institutes.



Graph 1: ICT skills development score of the institute

4. Relationship between ICT skill development and Usage of ICT in the institute.

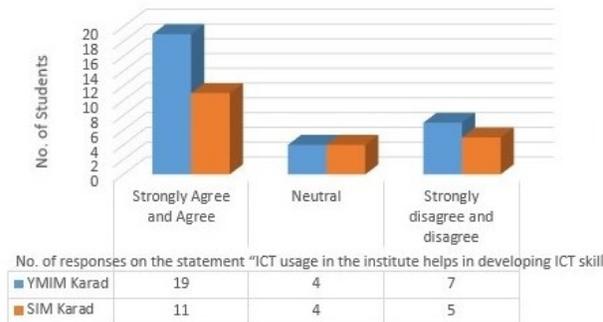
Each student was asked about his/her perception about the development of ICT skills and usage of ICT in the

institute. The responses are recorded and analyzed. It was found that 60% of the students are either strongly agree or agree that development of ICT skills is depend upon the availability and usage of ICT infrastructure in the institute, where 16 % students stated that there is no relation of both factors and 24 % students were of opinion that the development of ICT skills does not depend upon the availability and usage of ICT infrastructure in the institute. The outcomes are displayed in the table below. (Table 4)

Sr.No.	Name of institute	No. of responses on the statement "ICT usage in the institute helps in developing ICT skills"		
		Strongly Agree and Agree	Neutral	Strongly disagree and disagree
1	YMIM Karad	19	4	7
2	SIM Karad	11	4	5
	Total	30	8	12

Table 4. Perception of students about development of ICT skills and usage of ICT in the institute.

Perception of Students about Development of ICT skills



Graph 2: Perception of students about development of ICT skills.

From the above table and graph, it is revealed that development of student's ICT skills is depended on the availability and usage of ICT in the management institute.

V. CONCLUSIONS

In the nutshell, it is observed from the primary investigation, based on the data collection for the study, that there is adequate availability of ICT infrastructure in the selected institute. It is also observed that the usage level of ICT infrastructure is also significant level in the selected institute. Finally, it is found that majority of the students are of opinion that there is relationship between development of ICT skills of students and availability and usage of ICT in the institute.

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