# INSTITUTIONALIZATION OF INFORMATION AND COMMUNICATION TECHNOLOGY(ICT)IN OSMANIA UNIVERSITY

## * REZA GHAFARINIAE

**1:Department of Education, Shahid Modares Branch of Farhangyan  University , Ilam,Iran**

**\*Corresponding Author: E Mail: sem.pls.iran@gmail.com**

## ABSTRACT

Information and Communication Technology is used worldwide to increase access to, and to improve the relevance and quality of education.Technology refers to the techniques as well as the technical contrivances. Also important is the use of technical equipment for the same. Techniques are reckoned as the software and the equipment as the hardware of technology. Technology results are new designs and devices as also new ideas and process. Each new physical device is accompanied by a new set of procedures and techniques.The information revolution has brought with it a digital device phenomenon as a central problem of the contemporary world. However, this is not an independent phenomenon, but an integral part of the structure of inequality at all levels, international, national, regional, and local.Most of the Teachers and Administrative officers, are using information and communication Technology (ICT) in teaching, learning and searching for getting information. It can be observed , that all the respondent's i.e Deans of Faculties, Principals of  Colleges, Heads of the Departments, Teachers and Administrators Officers  believe that this era is that of CIF (computer, internet, Face book) life.Survey method is used to obtained descriptive information about target population.For the present study Simple Random sampling method is adopted, and the total sample is 300.

**Keywords:** Institutionalization, Information, Communication, Technology

## INTRODUCATION

 Information and Communication Technology is used worldwide to increase access to, and to improve the relevance and quality of education. The unprecedented speed and general availability of information due to ICT extends educational opportunities to marginalized and vulnerable groups. ICT gives students and teachers new tools with which to learn and teach. Lately in most universities, e-learning is used to define a specific mode to attend a course or programmes of study where the students rarely attend face-to-face on-campus access to educational facilities, because they study online. The information revolution has brought with it a digital device phenomenon as a central problem of the contemporary world. However, this

is not an independent phenomenon, but an integral part of the structure of inequality at all levels international, national, regional, and local. Digital device tends to reproduce the basic elements of the structure of inequality along the lines of traditional patterns of socio-economic stratification. El-Hindi (1998 ) conducted a study on constructivist teaching with Internet. He assumed that learning through the Internet is very compatible with constructivism. Constructivism assumes that learners are active and curious and the process of knowledge construction on the Internet is in keeping with these paradigms. The Internet is a powerful resource to support learners' natural curiosity.Collis (1999) found identical results,  believes that the characteristics of students , professors , their potentials and requirements affect the policy assumed by university as well. Becas C . Monen (2003) , Bates (2001) concluded similar ideas.Fore the case of skills development in ICT and Administrative support, most scholares suggested that to a large extent these two variables positively affected ICT implementation. For example, Agaba (2003) and Kumarsamy (2002) for Makerere University. Kyambogo University, respectively. Betty Collis & Malis , Van Der Wende (1999-2002) ,they found that university historical background it means culture and geographical medium depict critical tasks for university ,consequently university faces with

strategic trends to satisfy assigned goals and tasks for applying ICT.

## MATERIALS AND METHODS

This research is applied based on the objective and it is descriptive-

correlative in terms of method.

**Statistical population**: The studied statistical population consists of all

 800 professors' Heads of Departments' Dean of Faculty and Principals in

university.

### Sample  and Sampling Method

For the present study Simple Random sampling method is adopted, while selecting the sample. The total samples is 300. Of them 100 are administrators, 100 are teachers and 100 are employers.

### Data Collection Method, Research Tools and Method

 The questionnaire is utilized for data collection in this research.

 methods are utilized for data analysis and the data is processed by SPSS software.

In the present study the survey method  is used  to obtain  information  on  the following:

(i)     General  information  about university administrators and university teachers.

(ii)     Information about infrastructural facilities available in the university in  regard to ICT, and

(iii) Information about potentials and skills of ICT available in university.

**Statistical Techniques Employed in Study;**

(i) Chi-Square is applied to test whether there is significant difference existing among respondents the questionnaires for institutionalization ICT in the University.

(ii) Cronbaches Alpha' and product moment correlation is employed to find out relation between Administrators, Teachers and institutionalization ICT in the University.

**Intrinsic validity**:

The first essential quality of a valid test is that it should be highly reliable. It is worth

noting that the items for non-cognitive responses are selected only on the basic of validity index. The square root of reliability gives validity. From the above section the square root for both values were found to be 0.865 for administrators and teachers questionnaire.

**Reliability**:The reliability of the test for administrators and teachers for institutionalization of ICT in university was found to be 0.865

**Research questions:**

• What are the present levels of use of ICT by the functionaries of Osmania University and suggest measures to fill the gaps?

• What are planning components for institutionalizing ICT in university management under ICT utilization?

**RESULTS**
**First question**: What are the present levels of use of ICT by the

functionaries of Osmania University and suggest measures to fill the gaps?

**Table: 4.9. Distribution of sample using ICT for Teaching.**

| Designation | | Using ICT for Teaching | | Total |
|---|---|---|---|---|
| | | Yes | No | |
| Dean | Number | 12 | 0 | 12 |
| | Percentage | 100.0 | 0.0 | 100.0 |
| Principal | Number | 8 | 0 | 8 |
| | Percentage | 100.0 | 0.0 | 100.0 |
| Head | Number | 46 | 7 | 53 |

|  |  |  |  |  |
|---|---|---|---|---|
|  | Percentage | 86.8 | 13.2 | 100.0 |
| Teachers | Number | 81 | 21 | 102 |
|  | Percentage | 79.4 | 20.6 | 100.0 |
| Administrative Officers | Number | 5 | 2 | 7 |
|  | Percentage | 71.4 | 28.6 | 100.0 |
| **Total** | **Number** | **152** | **30** | **182** |
|  | Percentage | **83.5** | **16.5** | **100.0** |

It can be observed from Table: 4.9, that out of total sample, 152 (83.5 Percent) stated that they use ICT in teaching and 30 (16.5 Percent) said they do not use ICT in teaching. All the Deans of Faculties and Principals of the Colleges stated that they use ICT in teaching. 46 (86.8 Percent) of the Heads of the Departments stated that they use ICT in teaching. 81(79.4 Percent) of the teachers said they use ICT in their teaching were as5 (71.4 Percent) of the Administrative officers said that they use ICT for teaching. It can be understood that a majority of the sample (83.5 percent) use ICT in their teaching and the remaining do not use.

**Chi-Square Test**

| Designation | Chi-Square Value | df | Sig. |
|---|---|---|---|
| use of ICT for teaching | 6.352 | 4 | 0.174 |

It can be observed from the above that the value of Chi-Square is found to be 6.352 and is found to be insignificant P= 0.174, analysis This indicates that there is no significant difference in these variables.

**Table: 4.10. Using ICT in Teaching-Gender wise**

| Gender |  | Using ICT in Teaching | | Total |
|---|---|---|---|---|
|  |  | Yes | No |  |
| Male | Number | 114 | 20 | 134 |
|  | Percentage | 85.1 | 14.9 | 100.0 |
| Female | Number | 38 | 10 | 48 |
|  | Percentage | 79.2 | 20.8 | 100.0 |
| **Total** | **Number** | **152** | **30** | **182** |
|  | Percentage | **83.5** | **16.5** | **100.0** |

**Figure 4.9: Using ICT in Teaching**
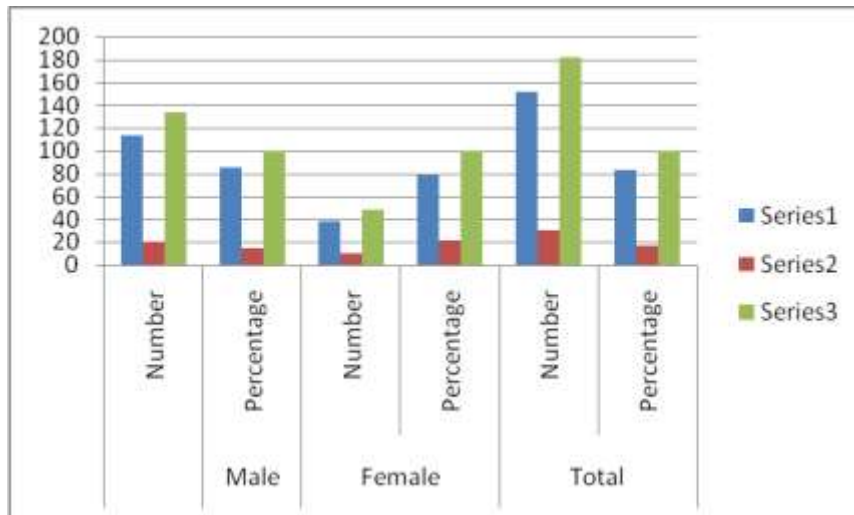


It can be observed from Table: 4.10, that out of the total sample, 152 (83.5 Percent) respondents stated that they use ICT in teaching and 30 (16.5 Percent) respondents said they do not use ICT in teaching. Gender-wise analysis shows that a majority of Male respondents 114(85.1 Percent) stated that they use ICT in Teaching and 38(79.2 Percent) Female respondents stated that they use ICT in teaching. This show that the male respondents are using more ICT in teaching than female.

**Chi-Square Test**

| Designation | Chi-Square value | df | Sig |
|---|---|---|---|
| using ICT in Teaching | 0.896 | 1 | 0.344 |

It can be observed from the above that the value of Chi-Square is found to be 0.896 and is found to be insignificant P= 0.344, This indicates that there is no significant difference in this variable.

**Table: 4.43. Having undergone the short-term training on ICT**

| Designation | | Having undergone the short - term training on ICT | | Total |
|---|---|---|---|---|
| | | Yes | No | |
| Dean | Number | 10 | 2 | 12 |
| | Percentage | 83.3 | 16.7 | 100.0 |

| Principal | Number | 8 | 0 | 8 |
|---|---|---|---|---|
| | Percentage | 100.0 | 0.0 | 100.0 |
| Head | Number | 37 | 16 | 53 |
| | Percentage | 69.8 | 30.2 | 100.0 |
| Teachers | Number | 69 | 33 | 102 |
| | Percentage | 67.6 | 32.4 | 100.0 |
| Administrative Officers | Number | 5 | 2 | 7 |
| | Percentage | 71.4 | 28.6 | 100.0 |
| **Total** | **Number** | **129** | **53** | **182** |
| | Percentage | **70.9** | **29.1** | **100.0** |

It can be seen from the above Table 4.43, that out of the total sample,129 (70.9 Percent) respondents stated that they have undergone the short-term training programmer on ICT and 53 (29.1 Percent ) respondents stated that they  have not undergone the short-term training programmer on ICT. Principals 100.0 Percent stated that they have  undergone the short-term training programmer on ICT. The Deans of Faculties 83.3 Percent, Heads of the Departments 69.8 Percent, Teachers 67.6 Percent and Administrative officers 71.4 Percent, stated that they have undergone the short-term training programme on ICT. This  shows that more of Principals have undergone the short-term training programme on ICT then the others.

**Chi-Square Test**

| Designation | Chi-Square value | df | Sig |
|---|---|---|---|
| having ICT course | 4.735 | 4 | 0.316 |

It can be observed from the above that the value of Chi-Square is found to be 4.735 and is found to be insignificant P= 0.316, this indicates that there is no significant difference in this variable.

**Table: 4.57.  Having required skills for use of Internet**

| Designation | Having required skills for use of Internet | Total |
|---|---|---|

|  |  | Yes | No |  |
|---|---|---|---|---|
| Dean | Number | 12 | 0 | 12 |
|  | Percentage | 100.0 | 0.0 | 100.0 |
| Principal | Number | 8 | 0 | 8 |
|  | Percentage | 100.0 | 0.0 | 100.0 |
| Head | Number | 53 | 0 | 53 |
|  | Percentage | 100.0 | 0.0 | 100.0 |
| Teachers | Number | 94 | 8 | 102 |
|  | Percentage | 92.2 | 7.8 | 100.0 |
| Administrative Officers | Number | 7 | 0 | 7 |
|  | Percentage | 100.0 | 0.0 | 100.0 |
| **Total** | **Number** | **174** | **8** | **182** |
|  | **Percentage** | **95.6** | **4.4** | **100.0** |

It can be seen from the above Table 4.57, that out of the total sample, 174 (95.6 Percent) respondents felt that they have required skills for use of Internet and 8 (4.4 Percent) respondents said they do not have required skills for use of Internet . All the Deans of Faculties, Administrative officers, Principals of campus Colleges and Heads of the Departments, stated that they have required skills for use of Internet. Only 7.8 Percent of Teachers said they do not require skills for use of Internet .It can be stated that a majority 95.6 percent of the sample have the required skills for the use of Internet.

**Chi-Square Test**

| Designation | Chi-Square value | df | Sig |
|---|---|---|---|
| having required skills for use of Internet | 6.563 | 4 | 0.161 |

It can be observed from the above that the value of Chi-Square is found to be 6.563 and is found to be insignificant P= 0.161, this indicates that there is no significant difference in this variable.

**CONCLUSION**

Most of the Teachers, Students and Administrative officers, are using information and communication

7

Technology (ICT) in teaching, learning and searching for information.

The finding of the present study is similar to a study previously carried out by El-Hindi (1998 ), he assumed that learning through the Internet is very compatible with constructivism. Constructivism assumes that learners are active and curious and the process of knowledge construction on the Internet is in keeping with these paradigms. The Internet is a powerful resource to support learners natural curiosity.

In Osmania university all Admissions for under-graduate courses are being done through online with application of ICT while in post-graduate and Ph. D courses, the admissions are being done partly with ICT and partly with manual operations. All the admissions except Ph.D. will be made by the Director of Admissions, Osmania University with application of ICT only. The total process of admissions is computerized in the University.

A majority of the teachers and administrators irrespective of gender are using ICT in:

(i)     classroom teaching;

(ii)     learning through internet;

(iii)     during presentations at seminars, workshops, conferences;

(iv)     in library for searching and getting information;

(v)     in the office for day to day work and maintenance of office accounts

(vi)     communicating of information and knowledge with the students, teachers, administrators and other academicians locally and globally;

(vii)     students admissions, examinations, evaluation and scholarships;

(viii)     support of group activity/student activity; and.

(ix)     online services for academic and other sectors for official and personal purpose and to cheek regularly the University website for information for updates.

This finding of the present study is similar to that of the study previously carried out by Farrell (1999, cited in Sife et al, 2007) which stated that ICT training and workshops are needed not only to improve the skills of the instructors, but also as a means of getting them involved in the process of integration of ICT in teaching and learning.

A majority of teachers and administrators have acquired ICT skills through attending short-term training programmers organized by the university and outside on their own. However, some of the teachers and administrators who depend on their supportive staff for use of ICT have to still to acquire ICT skills for use of ICT. However, they are of the opinion that this

is an era of computer, internet and face-book (CIF) life.

This finding of the present study is similar to that of a study previously carried out by UNESCO (2005) which reported that teachers, professors, technical and administrative staff must be given training that enables them to integrate new information and communication technologies into their teaching programs. The lack of technical skills of maintaining the functionality of computers confused teachers to integrate ICT in the classroom.

## Suggestions

The teachers, administrators and other support staff in the University should be provided with ICT skills by conducting short-term in service courses on ICT to enable them to adopt new ICT skills. Similarly the University should also conduct short-term courses on ICT to the students to acquire skills to use ICT which improves their learning venture and enables them to make use of world wide network of knowledge available in other Universities and other knowledge portals.The University should take necessary steps for modernization of instruction system, examination system and admission system through online to facilitate all the students ,teachers, administrators and other functionaries in the University management in the ICT mode.

## REFERENCES

1.Agaba, D (2003). "Utilization of Makerere University library information resources by academic staff: Challenges and the way forward. Master Dissertation", Makerere University, Kampala, Uganda.

2.Bates, T (2001). "National Strategies for E-Learning in Post-Secondary Education and Training". Parties :UNESCO.

3.Collis, B., and van Der wende, M (1999). "The use of Information and Communication Technology in higher Education-an international orientation on Trends and Issus." Twenter: Utwente/CHEPS.

4.El-Hindi, A.E (1998). "Beyound classroom boundaries: constructivist teaching with Internet. The reading teacher", Vol.51, NO-8,PP.694-700.

5.Kumarsamy, K (2002). "Information Technology and Teacher Educators." Hyderabad, India: Edu Tracks, A monthly Scanner of trends in Education. Vol.1 No.10, 16-18.

6.Sife, A. S., Lwoga, E. T. and Sanga, C (2007). "New technologies for teaching and learning: Challenges for higher learning institutions in developing countries. International Journal of education and development using

information and Communication "
Technology, 3(2), 57-67.

7.UNESCO    (2005).    "Comparing
Education Statistics across the World."
(http://www. uis. unesco.erg/templat