CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA
## CHAPTER IV
ANALYSIS AND INTRODUCTION OF DATA

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CHAPTER IV

ANALYSIS AND INTERPRETATION OF DATA

4.0 INTRODUCTION

The purpose of this study is to analyse the deployment of Information and Communication Technology by faculty members in the departments of Education in universities of Iran. This chapter concentrates on discussion, presentation, observation and interpretation of the data. According to the outlines laid down for the purpose at the time of developing research plan, and also to achieve its objectives, the data was processed after collection. This included editing, coding, classification, and tabulation of collected data. The research objectives and research questions formulated in Chapter-1 served to organize the presentation of the findings. The answer to each question is based upon the results obtained from the analysis and computation of the data collected from the returned questionnaires from 410 faculty members, surveyed. Descriptive statistics (frequency and percentage) and inferential statistics (Chi-Square Test) were used to analyze the data. The survey questions, rephrased and presented in Italics throughout this chapter, in order to make them stand out from the rest of the text. The details of findings, their analysis and interpretations are given below:

4.1 FACULTY MEMBERS UNIVERSITY SECTORS.

Faculty members were requested (question-1) to mention their university sectors.

4.2 FACULTY MEMBERS DEPARTMENT

Faculty members were selected to mention their department (Question 2). All of the faculty Members were in departments of Education.
4.3 FACULTY MEMBERS SEX-WISE GROUPS

Faculty members were requested (question-3) to indicate their gender.

<table>
<thead>
<tr>
<th>Sex</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female</td>
<td>146</td>
<td>36</td>
</tr>
<tr>
<td>Male</td>
<td>264</td>
<td>64</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.1

Faculty Members’ Sex-Wise Groups

![Pie chart showing 36% female and 64% male]

Figure 4.1

Observation: Data shows that:

64% of faculty members were male and 36% female.

Interpretation: It shows that in departments of Education in Iran male faculty members are more than female.

4.4 FACULTY MEMBERS’ AGE-WISE GROUPS

Faculty members were requested (question-4) to mention their age.

<table>
<thead>
<tr>
<th>Age</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>25-29</td>
<td>51</td>
<td>12.4</td>
</tr>
<tr>
<td>30-39</td>
<td>121</td>
<td>29.6</td>
</tr>
<tr>
<td>40-49</td>
<td>177</td>
<td>43.3</td>
</tr>
<tr>
<td>50-59</td>
<td>50</td>
<td>12</td>
</tr>
<tr>
<td>More Than 60</td>
<td>11</td>
<td>2.7</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.2
Observation: data demonstrates that 43.3% of faculty members were in age group 40-49 followed by 29.6% in 30-39, 12.4% in 25-29, 12% in 50-59 and minimum (2.7%) more than 60.

Interpretation: It indicates that majority of the faculty members were in age group of 40-49.

4.5 FACULTY MEMBERS DEGREE WISE GROUPS

Faculty members were requested (question-5) to mention their academic degrees.

<table>
<thead>
<tr>
<th>Degree Level</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ph.D</td>
<td>221</td>
<td>54</td>
</tr>
<tr>
<td>Master</td>
<td>189</td>
<td>46</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.3
Observation: data represents that 54% of faculty members had PhD degree and 46% Master.
Interpretation: It indicates that majority of faculty members in departments of Education in Iran were PhD.

4.6 FCULTY MEMBERS' ACADEMIC RANK WISE GROUPS

Faculty members were asked (question-6), to mention their academic ranks.

Faculty Members' Academic Ranks Wise Groups

<table>
<thead>
<tr>
<th>Academic Ranks</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Professors</td>
<td>35</td>
<td>8.6</td>
</tr>
<tr>
<td>Associate professors</td>
<td>80</td>
<td>19.5</td>
</tr>
<tr>
<td>Assistant professors</td>
<td>104</td>
<td>25.4</td>
</tr>
<tr>
<td>Lecturers</td>
<td>191</td>
<td>46.5</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.4

Faculty Members' Academic Ranks Wise Groups

Figure - 4.4

Observation: data displays that 46.5% of faculty teachers were lecturers followed by 25.4% assistant professors, 19.5% associate professors and 8.6% (minimum) were Professors.
Interpretation: It indicates that majority of the faculty members under the study were lecturers, while minimum were professors.

4.7 FACULTY MEMBERS’ EXPERIENCE WISE GROUPS

Faculty members were asked (question-7), to mention their teaching experience.

<table>
<thead>
<tr>
<th>Experience</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-10</td>
<td>177</td>
<td>43.2</td>
</tr>
<tr>
<td>11-20</td>
<td>180</td>
<td>43.9</td>
</tr>
<tr>
<td>21-30</td>
<td>32</td>
<td>7.8</td>
</tr>
<tr>
<td>31 &amp; more</td>
<td>21</td>
<td>5.1</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.5

Faculty Members’ Teaching Experience Wise Groups

Figure 4.5

Observation: data represents that: 43.2% of faculty members had 1-10 years teaching experience followed by 43.9% 11-20, 7.8% 21-30 and 5.1% had more than 31 - >.

Interpretation: data depicts that majority of the faculty members had 11-20 years teaching experience.
4.8 FACULTY MEMBERS’ SPECIALIZATION

Faculty members were requested (question-8) to mention their specialization in Education.

**Faculty Members’ Specialization**

<table>
<thead>
<tr>
<th>Specialization</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Curriculum development</td>
<td>148</td>
<td>36.1</td>
</tr>
<tr>
<td>Educational planning</td>
<td>60</td>
<td>14.6</td>
</tr>
<tr>
<td>Educational management</td>
<td>91</td>
<td>22.2</td>
</tr>
<tr>
<td>Philosophy of Education</td>
<td>74</td>
<td>18</td>
</tr>
<tr>
<td>Instructional Technology</td>
<td>32</td>
<td>7.8</td>
</tr>
<tr>
<td>Educational Evaluation</td>
<td>5</td>
<td>1.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>410</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.6

**Observation:**

Data shows that: 36.1% of faculty members have specialized in Curriculum Development, 22.2% in Educational Management, 18% in Philosophy of Education, 14.6% in Educational Planning, 7.8% in Instructional Technology and 1.3% in Educational Evaluation.

**Interpretation:** With the help of above findings we can say that majority of faculty members’ specialization were Curriculum development.
4.9 FACULTY MEMBERS ENGLISH LEVELWISE GROUPS

Faculty members were requested (question-9) to mention the level they knew English.

Faculty Members’ English Levels Wise

<table>
<thead>
<tr>
<th>English Level</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>very good</td>
<td>93</td>
<td>23</td>
</tr>
<tr>
<td>Good</td>
<td>191</td>
<td>46</td>
</tr>
<tr>
<td>Average</td>
<td>115</td>
<td>28</td>
</tr>
<tr>
<td>poor.</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>410</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.7

Faculty Members’ English Levels Wise

*Observation:* Data illustrates that 46% of faculty members were good, 23% very good, 28% average and 3% poor in English.

*Interpretation:* Less than half of the faculty members were good in English. In universities of Iran language of instruction is Persian (the national language of Iran) and faculty members offer their courses only in (Persian).
4.10 FACULTY MEMBERS’ COUNTRY WISE GRADUATION

Faculty Members were requested (question-10), to mention the countries they got their last degree from

<table>
<thead>
<tr>
<th>Country-Wise Graduation</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iran</td>
<td>357</td>
<td>87</td>
</tr>
<tr>
<td>U.S.A</td>
<td>14</td>
<td>3.5</td>
</tr>
<tr>
<td>England</td>
<td>23</td>
<td>5.7</td>
</tr>
<tr>
<td>Russia</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>Austria</td>
<td>1</td>
<td>0.2</td>
</tr>
<tr>
<td>Canada</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td>India</td>
<td>5</td>
<td>1.2</td>
</tr>
<tr>
<td>Germany</td>
<td>3</td>
<td>0.7</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.8

Faculty Members’ Country-Wise Graduation

Observation: Data indicates that: 87% of faculty members their last degree from universities of Iran, 5.7% from England, 3.5% from U.S.A, 1.2% from India, 1% from Canada, 0.7% from Russia and 0.7 from Germany, 0.2% from Austria.
**Interpretation:** It shows that majority of faculty members in department of Education obtained their last degrees from universities of Iran.

### 4.11 FACULTY MEMBERS LOCATION OF INFORMATION

Faculty Members were requested (question-11) to mention where they locate their Information.

**Faculty Members’ Information Location Wise**

<table>
<thead>
<tr>
<th>Location of Information</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Book</td>
<td>52</td>
<td>12.7</td>
</tr>
<tr>
<td>Journal</td>
<td>30</td>
<td>7.3</td>
</tr>
<tr>
<td>Databanks</td>
<td>27</td>
<td>6.6</td>
</tr>
<tr>
<td>Book &amp; Journal</td>
<td>62</td>
<td>15.2</td>
</tr>
<tr>
<td>Journal &amp; Databanks</td>
<td>20</td>
<td>4.9</td>
</tr>
<tr>
<td>All</td>
<td>219</td>
<td>53.3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.9

**Observation:** Data shows that 53.3% of faculty members located their information in books & journals and databanks followed by 15.2% books and journals, 12.7% books, 7.3% journals, 6.6% databanks and 4.9% journals and databanks.

Figure – 4.9
Interpretation: It shows that majority of academic members in departments of Education located their information in books & journals and databanks, and can say three sources were the most important sources of information for them.

4.12 USE OF ICT

Faculty members were asked (question-11) to mention about their use of ICT.

<table>
<thead>
<tr>
<th>Use of ICT</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>400</td>
<td>97.6</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>1.4</td>
</tr>
<tr>
<td>I don’t know</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.10

Faculty Members’ Use of ICT

Figure - 4.10

Observation: data indicates that 97.6% of faculty members used ICT, while only 1.4% did not use and 1% mention don’t know.

Interpretation: It shows that majority of academic members in departments of Education used ICT. Nowadays, ICT is a set of skills that everyone “specially” the faculty members need to master in the
modern world. Faculty members have to help students to achieve a high level of competency and competitiveness, they have no option but to make ICT as an integrated tool in the teaching-learning process. They should change their focus from being dispensers of knowledge to facilitators of learning. To achieve this goal, they should use ICT in the educational process.

4.13 REASONS FOR NOT USING ICT

Faculty members who did not use ICT, were asked (question-13) to mention the reasons why they did not use ICT.

<table>
<thead>
<tr>
<th>Reasons Not using ICT</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of ICT Facilities</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td>Lack of familiarity to ICT</td>
<td>5</td>
<td>50</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>10</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table 4.11

Observation: data reveals that: 50% of faculty members, who did not use ICT, were not familiar with ICT and 50% had not enough facilities to use ICT
**Interpretation**: It demonstrates that unfamiliarity with ICT and lack of facilities were the two top reasons reported by faculty members for not using ICT. Failure to use ICT effectively can be attributed to a number of factors, such as: the lack of skills in the use of ICT, inadequacy of computers with inaccessibility to ICT facilities.

### 4.14 PURPOSE WISE USE OF ICT

Faculty members were requested (question-14) to mention purposes of ICT use.

**Faculty members’ ICT Use Purpose**

<table>
<thead>
<tr>
<th>ICT Use Purposes</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information Seeking</td>
<td>65</td>
<td>15.9</td>
</tr>
<tr>
<td>Doing Research Works</td>
<td>79</td>
<td>19.3</td>
</tr>
<tr>
<td>Teaching</td>
<td>58</td>
<td>14.1</td>
</tr>
<tr>
<td>Communicating</td>
<td>21</td>
<td>5.1</td>
</tr>
<tr>
<td>Planning</td>
<td>14</td>
<td>3.4</td>
</tr>
<tr>
<td>Information Seeking &amp; Doing research works</td>
<td>31</td>
<td>7.6</td>
</tr>
<tr>
<td>All</td>
<td>132</td>
<td>32.2</td>
</tr>
<tr>
<td>Not Mentioned</td>
<td>10</td>
<td>2.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>410</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Table 4.12**

**Observation:**

Data shows that 19.3% of faculty members used ICT for research purposes, followed by 14.1% only teaching purpose, 15.9% information seeking, 7.6% information seeking & research, 5.1% communicating, 3.4% planning and 32.2% (maximum) all of the mentioned purposes. 2.4% of the respondents did not specify any purpose.

**Interpretation:**

It shows that maximum faculty members used ICT for research, teaching, information seeking, communicating, planning purposes.
4.15 TIME WISE USE OF ICT

Faculty members were asked (question-15) to mention how many hours they use ICT.

Faculty Members’ Time Wise Use of ICT

<table>
<thead>
<tr>
<th>Time use of ICT</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 1 hour</td>
<td>48</td>
<td>12</td>
</tr>
<tr>
<td>1-2</td>
<td>68</td>
<td>16.6</td>
</tr>
<tr>
<td>2-3</td>
<td>55</td>
<td>13.4</td>
</tr>
<tr>
<td>3-4</td>
<td>51</td>
<td>12.4</td>
</tr>
<tr>
<td>4-5</td>
<td>85</td>
<td>20.7</td>
</tr>
<tr>
<td>More than 5</td>
<td>93</td>
<td>22.7</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>10</td>
<td>2.2</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.13

Observation: data shows that: 22.7% of faculty members used ICT more than 5 hours daily, 20.7% 4-5 hours, 16.6% 1-2 hours, 13.4% 2-3 hours, 12.4% 3-4 hours and 12% less than one hour. 2.2% of the respondents did not mention anything.
Interpretation: It is observed that maximum of faculty members used ICT more than 5 hours daily. Not surprisingly, the mean of time spent by academics of diary keepers using ICT, as a academic would be unlikely to spend so much more time unless she/he was an internet services user who had perceived the internet services as a useful technology in his/her daily activities.

4.16 PLACES OF USING ICT

Faculty members were asked (question-16) to mention about the place where they used ICT.

<table>
<thead>
<tr>
<th>Places use of ICT</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home</td>
<td>78</td>
<td>19</td>
</tr>
<tr>
<td>Classroom</td>
<td>6</td>
<td>1.5</td>
</tr>
<tr>
<td>Office</td>
<td>36</td>
<td>8.8</td>
</tr>
<tr>
<td>Home &amp; class</td>
<td>30</td>
<td>7.3</td>
</tr>
<tr>
<td>Home &amp; office</td>
<td>72</td>
<td>17.6</td>
</tr>
<tr>
<td>Home &amp; class &amp; office</td>
<td>178</td>
<td>43.4</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>10</td>
<td>2.4</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.14

Faculty Members’ Places Use of ICT

Figure - 4.13
Observation: data shows that: 43.4% of faculty members used ICT at home & office and classroom, 19% only home, 17.6% home & office, 8.8% office only, 7.3% home & classroom and 1.5% classroom only. 2.4% did not specify anything.

Interpretation: It indicates that majority of academic members used ICT at home & office and class. This means that faculty members in addition use in the class at the end of class day have the opportunity to access more learning resources.

USE OF VARIOUS ICT TOOLS AND SERVICES

4.17 USE OF COMPUTER

Faculty members were asked (question-17) to mention about their use of computer.

Faculty Members’ Use of Computer

<table>
<thead>
<tr>
<th>Use</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently</td>
<td>312</td>
<td>76.1</td>
</tr>
<tr>
<td>Sometimes</td>
<td>71</td>
<td>17.3</td>
</tr>
<tr>
<td>Rarely</td>
<td>17</td>
<td>4.2</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>10</td>
<td>2.4</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.15

Faculty Members’ Use of Computer

Figure – 4.14
**Observation:** data indicates that Total 97.6% (76.1% frequently, 17.3% *sometimes* and 4.2% *rarely*) of faculty teachers *used* computer, and 2.4% did not mention anything.

**Interpretation:** It reveals that majority of academic members used computer. Faculty members have to use computer to achieve new goals in their academic job, supported by ICT. They should use computer to perform teaching, clerical and administrative tasks. They should also use computer for *instructional design, curriculum planning and utilizing software tools to design and produce multimedia lessons, tutorials and quizzes.*

4.17.1 Statistical Chi-Square Test between *faculty members’ English levels* and their *use of computer*

Statistical Chi-Square Test was applied between *faculty members*, English levels and their *use of computer*.

**Faculty members’ English levels and use of computer**

<table>
<thead>
<tr>
<th>Use Computer</th>
<th>Frequently</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Total</th>
<th>Not mentioned</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Level</td>
<td>F(o)</td>
<td>F(e)</td>
<td>F(o)</td>
<td>F(e)</td>
<td>F(o)</td>
<td>F(e)</td>
</tr>
<tr>
<td>Very good</td>
<td>84</td>
<td>71.7</td>
<td>5</td>
<td>16.4</td>
<td>3</td>
<td>3.9</td>
</tr>
<tr>
<td>Good</td>
<td>150</td>
<td>147.5</td>
<td>34</td>
<td>33.5</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Average</td>
<td>73</td>
<td>85</td>
<td>27</td>
<td>19.3</td>
<td>9</td>
<td>4.6</td>
</tr>
<tr>
<td>Poor</td>
<td>5</td>
<td>7.8</td>
<td>5</td>
<td>1.8</td>
<td>-</td>
<td>.5</td>
</tr>
<tr>
<td>Total</td>
<td>312</td>
<td>312</td>
<td>71</td>
<td>71</td>
<td>17</td>
<td>17</td>
</tr>
</tbody>
</table>

Table 4.16

**Note:** ‘Fo’ is used to represent the number of observed frequencies
‘Fe’ is used to represent number of expected frequencies.

The expected frequencies for each of the 6 cells are computed by the formula. 

\[1: (L.R.\text{ Gay.} \text{ 2006, p.370})\]
\[ \left( \sum \text{column} \right) \left( \sum \text{row} \right) \]

\[ \text{Fe} = \] 

---

**Grand total**

Computation of expected frequencies:

- \((312) (92)/400=71.7\) \((71) (109)/400=19.3\)
- \((312) (189)/400=147.5\) \((71) (10)/400=1.8\)
- \((312) (109)/400=85\) \((17)(92)/400=3.9\)
- \((312) (10)/400=7.8\) \((17)(189)/400=8\)
- \((71) (92)/400=16.4\) \((17)(109)/400=4.6\)
- \((71) (189)/400=33.5\) \((17)(10)/400=.5\)

The chi-square value is computal using the formula:

\[ \chi^2 = \sum \left( \frac{(O-E)^2}{E} \right) \]

Computation of the \(\chi^2\) value:

- \((84-71.7)^2/71.7=2.1\) \((27-19.3)^2/19.3=3.07\)
- \((150-147.5)^2/147.5=0.04\) \((5-1.8)^2/1.8=5.6\)
- \((73-85)^2/85=1.69\) \((3-3.9)^2/3.9=0.20\)
- \((5-7.8)^2/7.8=1\) \((5.8)^2/8.8=1.6\)
- \((5-16.4)^2/16.4=7.92\) \((9-4.6)^2/4.6=4.2\)
- \((34-33.5)^2/33.5=.007\) \((0-0.5)^2/0.5=0.5\)

\[ \chi^2=2.1+0.04+1.69+1+7.92+.007+3.07+5.6+0.20+1.6+4.2+0.5=27.92 \]

**Degrees of Freedom (df)** \(=\) (rows-1)(columns-1) \(\text{df} = (4-1)(3-1)=6\)

Statistical Chi-Square Test Result between the Faculty members' English level and use of Computer

<table>
<thead>
<tr>
<th>Chi-Square</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>(\chi^2)</td>
<td>df</td>
</tr>
<tr>
<td>27.92</td>
<td>6</td>
</tr>
</tbody>
</table>

Table 4.17

**Observation**: data shows that degrees of freedom are 6. From table of Critical Values for Chi-Square (Appendix F) the chi-square value has (12.59). The obtained value 27.92 is more than 12.59 and 16.81.
**Interpretation:** Chi-Square Test Result shows that a significant difference is observed between the Faculty members’ English level and use of Computer.

**4.18 USE OF THE INTERNET**

Faculty members were asked (question-18) to reveal the use of the Internet.

<table>
<thead>
<tr>
<th>Internet</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequency</td>
<td>282</td>
<td>68</td>
</tr>
<tr>
<td>Sometimes</td>
<td>93</td>
<td>23</td>
</tr>
<tr>
<td>Rarely</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.18: Faculty Members’ Use of the Internet

**Observation:** data displays that: Total 97% (68% Frequently, 23% sometimes and 6% rarely) of academic members used the Internet and 3% did not mention anything.

**Interpretation:** It reveals that majority of faculty members used the Internet. It shows that the Internet is the most popular and widely used network being utilized by faculty members in departments of
Education in Iran. The Internet has become a very important source of current information among faculty members. The Internet makes it possible for faculty members to have access to large volumes of information irrespective of their geographical location. The Internet has nowadays become an important component in academic institutions and departments as it plays a pivotal role in meeting information and communication needs of educational institutions. It makes it possible to access them a wide range of information, such as up-to-date research reports, from anywhere in the world. The Internet also makes it possible for various scholars at different locations on the globe to exchange ideas on various fields of study. The Internet has also enabled the growth of distance learning, both within nations and across international borders.

4.18.1 Statistical Chi-Square Test between faculty members’ English level and use of Internet

Statistical Chi-Square Test was applied between faculty members’ English level and use of Internet.

**Faculty members’ English level and use of Internet**

<table>
<thead>
<tr>
<th>Use Internet English Level</th>
<th>Frequently</th>
<th>Sometimes</th>
<th>Rarely</th>
<th>Total F(o)</th>
<th>Not mentioned</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very good</td>
<td>74</td>
<td>65.2</td>
<td>15</td>
<td>21.5</td>
<td>3</td>
<td>92</td>
</tr>
<tr>
<td>Good</td>
<td>143</td>
<td>133.9</td>
<td>40</td>
<td>44.2</td>
<td>6</td>
<td>189</td>
</tr>
<tr>
<td>Average</td>
<td>60</td>
<td>75.8</td>
<td>33</td>
<td>25</td>
<td>14</td>
<td>107</td>
</tr>
<tr>
<td>Poor</td>
<td>5</td>
<td>7.1</td>
<td>5</td>
<td>2.3</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>282</td>
<td>282</td>
<td>93</td>
<td>93</td>
<td>23</td>
<td>398</td>
</tr>
</tbody>
</table>

Table 4.19

\[ df = (4-1)(3-1) = 6 \]
Statistical Chi-Square Test Result between the Faculty members’ English level and use of Internet

<table>
<thead>
<tr>
<th>Chi-Square</th>
<th>Level of significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>$\chi^2$</td>
<td>df</td>
</tr>
<tr>
<td>26.4</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>0.05</td>
</tr>
<tr>
<td></td>
<td>12.59</td>
</tr>
<tr>
<td></td>
<td>0.01</td>
</tr>
<tr>
<td></td>
<td>16.81</td>
</tr>
</tbody>
</table>

Table 4.20

Observation: data shows that degrees of freedom are 3. The chi-square value has to be 16.81 to be regarded as significant at 0.01 level and at 0.05 level (12.59). The obtained value 26.4 is more than 12.59 and 16.81.

Interpretation: Chi-Square Test Result shows that significant difference is observed between the Faculty members’ English level and use of Internet.

Chi-Square Test Results between Variable, English level with use of ICT Tools (Computer, Internet.)

<table>
<thead>
<tr>
<th>Variable</th>
<th>ICT Tools</th>
<th>Chi-Square $\chi^2$</th>
<th>df</th>
<th>Level of significance</th>
<th>significant</th>
<th>Non-significant</th>
</tr>
</thead>
<tbody>
<tr>
<td>English Level</td>
<td>Computer</td>
<td>27.92</td>
<td>6</td>
<td>12.59</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>English Level</td>
<td>Internet</td>
<td>26.4</td>
<td>6</td>
<td>12.59</td>
<td>*</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.21

Observation:
Data shows that significant difference is observed between the use of Computer and use of Internet faculty members’ English level.

Interpretation:
According to above data, faculty members who their English Level were very good and good more than faculty members who their English Level were not use computer and internet.
4.19 USE OF INTRANET

Faculty members were asked (question-19) to mention the use of Intranet.

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of Network</th>
<th>Intrantet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>82</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>98</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>70</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>37</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table - 4.22

Observation: data represents that: Total 69.8% (20% Frequently, 25.9% sometimes, 23.9% rarely) of faculty members used Intranet followed by 17.1% did not use, 9% did not know and 4.1% did not mention anything.

Interpretation: It indicates that more than half of academic staff use Intranet. The latest trend in networking is the development of “Intranet” or Corporate Network”. The Intranet within a university provides data and information to faculty members with authorization to access. These networks are specific to the corporate which use them and are used for internal communication of that corporate by installing servers which talk to each other and update each other using public networks. Intranet provides easy coordination effort among research projects and teams, free flow communication between faculty members with each other and with students, centralized and standardized database, effective group communication, online services for users and reduced documentation. Use of Intranet facilitates by faculty members with the following options: i) Each faculty members
can enjoy total computing facility at his own end. i) Every faculty member can communicate with each other. iii) It offers access to multiple resources like printers, scanners, storage capacity and various expensive softwares

### 4.20 USE OF OFFLINE DATABANKS

Faculty members were requested (question-20) to mention the use of offline databanks.

Faculty Members’ Use of Offline Databanks

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Offline Databanks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>103</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>64</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>43</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.23

Faculty Members’ Use of Offline Databanks

**Figure-4.16**

Observation: data shows that total 68.8% (14.4% Frequently, 29.3% sometimes and 25.1% rarely) of faculty members used offline databanks, while 15.6% did not use and 5.1% did not know offline databanks. 10.5% did not mention anything.
Interpretation: It indicates that 68.8% of faculty members used offline databanks. Offline refers to working with web pages without being connected to the internet. The internet files are stored in disk cache.

4.21 USE OF ONLINE DATABANKS

Faculty members were asked (question-21) to mention the use of online databanks.

Faculty Members’ Use of Online Databanks

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Online Databanks</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>84</td>
<td>20.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>117</td>
<td>28.5</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>98</td>
<td>23.9</td>
<td></td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>40</td>
<td>9.8</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>10</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>61</td>
<td>14.9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table – 4.24

Observation:

Data displays that Total 72.9% (20.5% Frequently used, 28.5% sometimes and 23.9% rarely) of faculty members used online databanks followed by 9.8% did not use, 2.4% did not know and 14.9% did not specify anything.

Interpretation:

It shows that majority of faculty members used online databanks and uses of online databanks are at the satisfactory level among faculty members. The online databanks are available on the www in different fields and subjects. Web allows to access the full content of online datanks via the Internet.

4.22 USE OF MULTIMEDIA

Multimedia is the combined use of several media, such as motion-picture, slides, text, sound and music. It is one of the fastest growing and
most exciting areas in the ICT field. Multimedia is extensively used for education and training in schools and colleges. It allows teachers and faculty members to proceed at their own pace. It brings presentations alive with sounds, movies, animation, and interactivity. This technology is as a teaching aid in education.

Faculty members were requested (question-22) to mention the use of multimedia.

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Multimedia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequent</td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td></td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>83</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>119</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>53</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>41</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>69</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table - 4.25

Observation:
Data represents that total 60.3% (11% Frequently used, 20.3% sometimes and 29% rarely) of faculty members used multimedia followed by 12.9% did not use, 10% did not know multimedia and 16.8% did not mention anything.

Interpretation:
It indicates that 60.3% of academic members used multimedia technology. Multimedia technology has created a revolution in education/training methodology, learning behaviour, communication pattern and searching techniques.

4.23 USE OF CD AND DVD TECHNOLOGIES
There are many softwares on CDs & DVDs for building different kinds of study materials, presentations, tutorials, electronic books, intractive lessons and tests. There are also many electronic encyclopedias and
electronic dictionaries on CDs & DVDs also which are important tools for faculty members in their academic jobs.

*Faculty members were requested (question-23) to mention the use of CDs and DVDs.*

### Faculty Members’ Use of CD & DVD

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>CD &amp; DVD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>167</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>63</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.26

**Faculty Members’ Use of CD & DVD**

*Figure - 4.17*

**Observation:** data reveals that: Total 88.3% (40.7% Frequently, 32.2% sometimes, 15.4% rarely) of academic staff used CD and DVD technology. 4.4% did not use, 5% did not know CD&DVD and 6.8% did not mention anything.

**Interpretation:** It indicates that majority of academics used CDs and DVDs technologies. Nowadays CDs & DVDs are the most widely used technologies for saving large amounts of data due to
their large capacities. Recently part of the publishers challenge is that they have gone from producing hard-copy textbooks to CDs and DVDs.

### 4.24 USE OF SOFTWARE TOOLS

*Faculty members were requested (question-24) to mention the use of software tools.*

#### Faculty Members' Use of Software Tools

<table>
<thead>
<tr>
<th>Type of Technology</th>
<th>Software Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Status</td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Frequently</td>
<td>63</td>
</tr>
<tr>
<td>Sometimes</td>
<td>107</td>
</tr>
<tr>
<td>Rarely</td>
<td>131</td>
</tr>
<tr>
<td>Not used</td>
<td>51</td>
</tr>
<tr>
<td>Unknown</td>
<td>23</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>35</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
</tr>
</tbody>
</table>

**Table – 4.27**

**Observation:**

data represents that Total 73.5% (15.4% Frequently used, 26.1% sometimes and 32% rarely) of faculty members used software tools followed by 12.4% did not use, 5.6% did not know and 8.5% did not mention anything.

**Interpretation:**

It indicates that majority of respondents used software tool. Software includes the programs that allow you to type, draw or surf the internet. Software is the name given to programs, routines and procedures used to operate computer hardware.
4.25 USE OF DATA PROJECTOR

Faculty members were requested (question-25) to mention the use of data projector.

Faculty Member’ Use of Data Projector

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Data Projector</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>75</td>
<td>18.3</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>107</td>
<td>26.1</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>131</td>
<td>32</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>45</td>
<td>11</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>10</td>
<td>2.4</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>42</td>
<td>10.2</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.28

Faculty Member’ Use of Data Projector

![Figure - 4.18](image)

Observation:

Data represents that: Total 76.4% (32% rarely, 26.1% sometimes and 18.3% Frequently) of respondents used data projector, 11% did not use, 2.4% did not know and 10.2% did not mention anything.

Interpretation:

It shows that majority of academics used data projector. A data projector connects directly to a computer and then projects the computer screen image on to classroom board or wall. Main benefits are: Exciting whole-class teaching using graphics, video, animation.
and sometimes sound. Lessons can maintain pace through a variety of media and resource.

4.26 USE OF DIGITAL PRINTERS

*Faculty members were requested (question-26) to mention the use of digital printers.*

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Digital Printers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Use</td>
<td>Frequently</td>
<td>205</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>148</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>36</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>7</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

**Table – 4.29**

**Observation:**

Data represents that total 94.9% (50% Frequently, 36.1% sometimes and 8.8% rarely) of faculty members used digital printers, 1.7% did not use and 3.4% did not mention anything.

**Interpretation:**

Majority of academics use digital printers. They used printer for Print exam questions, research working, writing a book, paper writing.

4.27 USE OF DIGITAL SCANNERS

*Faculty members were requested (question-27) to mention the use of digital scanners.*
Faculty Members’ Use of Digital Scanners

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Digital Scanners</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>131</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>146</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>98</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>16</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.30
Faculty Members’ Use of Digital Scanners

Figure - 4.19

Observation:
data represents that: Total 91% (32% Frequently used, 35% sometimes and 24% rarely) of faculty members used digital scanners, 5% did not use and 4% did not mention anything.

Interpretation:
According to above data, many faculty members use digital scanners. They used scanner for transfers information such as: pictures, papers, Articles.
4.28 USE OF DIGITAL CAMERAS

Faculty members were requested (question-28) to mention the use of digital cameras.

Faculty Members’ Use of Digital Cameras

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Discussion Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>140</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>132</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>54</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table – 4.31

Observation: data shows that: Total 80.9% (14.6% Frequently, 34.1% Sometimes and 32.2% Rarely) of faculty members used digital cameras, 13.2% did not use and 4.9% did not mention anything, and 1% did not know.

Interpretation: Many faculty members used digital cameras. Taking digital photographs has become practice in many families. Probably The faculty members used digital cameras for records pictures or images or daily events.

4.29 USE OF E-BOARD

Faculty teachers were asked (question-29) to mention the use of E-board.

Faculty Member’ Use of E-Board

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>E- Board</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>42</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>85</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>145</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>81</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.32
Facility Members’ Use of E-Board

**Observation:**
Data displays that: Total 66.3% (35.4% rarely, 20.7% sometimes and 10.2% Frequently) of respondents used e-board, while 19.8% did not use, 6.1% did not know and 7.8% did not specify their use.

**Interpretation:** It is observed that maximum Faculty Member’s Using E-Board. They using Electronic White – Board for display notes and drawings on all participants.

**4.30 OVERHEAD PROJECTOR**
Overhead projector is one of the advanced and efficient visual aid. It is one effective conveyor of ideas, feeling etc. with an instant transmission and can be used in conferences, seminars, symposia, etc. by faculty members. Audio-visual aids, devices, technological media and learning devices are those that helping faculty members to clarify, establish, correlate and coordinate accurate concepts, interpretations and appreciations to enable them to make learning more concrete, effective, interesting, inspirational, meaningful and vivid.

*Faculty members were requested (question-30) to mention the use of overhead projector.*
Faculty Members’ Use of Overhead Projector

<table>
<thead>
<tr>
<th>Type of ICT</th>
<th>Overhead Projector</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td></td>
</tr>
<tr>
<td>Frequently</td>
<td>84</td>
</tr>
<tr>
<td>Sometimes</td>
<td>101</td>
</tr>
<tr>
<td>Rarely</td>
<td>147</td>
</tr>
<tr>
<td>Not used</td>
<td>46</td>
</tr>
<tr>
<td>Unknown</td>
<td>4</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>28</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.33

Faculty Members’ Use of Overhead Projector

Table 4.33

Observation:

Data represents that Total 81% (35% rarely, 25% sometimes and 21% Frequently) of faculty members used overhead projector, 11% did not use, 1% did not know and 7% did not mention anything.

Interpretation

Audio-visual aids help faculty members in completing the triangular process of learning; viz., motivation, clarification and stimulation. The aim of teaching and technological media is clearing the channel between the learner and the things that are worth learning. Audio visual aids provide significant gains in informational learning, retention and recall, thinking and reasoning, activity, interest,
imagination, better assimilation and personal growth and development.

4.31 USE OF FAX

Faculty members were asked (question-31) to mention the use of fax

Faculty Members’ Use of Fax

<table>
<thead>
<tr>
<th>Technology Use Status</th>
<th>Type of Use</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>158</td>
<td>38.5</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>118</td>
<td>28.8</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>91</td>
<td>22.2</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>24</td>
<td>5.9</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>19</td>
<td>4.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table – 4.34

Observation:

Data that total: 89.5% (38.5% Frequently, 28.8% sometimes and 22.2% rarely) of faculty members used fax, while 5.9% did not use and 4.6% did not mention their use.

Interpretation

According to above data, the percentage of faculty members who used fax are Maximum on the contrary percentage of faculty members who did not use fax. The fax is one of the machines used the most in an office. A fax or facsimile is a document or picture sent as an electronic signal over the telephone system. The faculty members used fax for sent their document or pictures because A fax is an electronic copy of a document.
4.32 USE OF VIDEO – VCR & VCD

Faculty members were asked (question-32) to mention the use of VCR.

<table>
<thead>
<tr>
<th>Faculty Members’ Use of Video</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Status</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Frequently</td>
</tr>
<tr>
<td>Sometimes</td>
</tr>
<tr>
<td>Rarely</td>
</tr>
<tr>
<td>Not used</td>
</tr>
<tr>
<td>Unknown</td>
</tr>
<tr>
<td>Not mentioned</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Table – 4.35

Observation: data indicates that total:86.4% (37.3% Frequently, 29.3% sometimes, 19.8% rarely) of faculty members used VCR, while 5.4% did not use, 1.7% did not know and 6.5% did not mention anything.

Interpretation: It indicates that majority of faculty members used VCR. A Video is used to send or transmit moving pictures probably. The faculty members used video for display moving pictures.

4.33 USE OF EXPERT SYSTEMS

Faculty members were requested (question-33) to mention the use of expert systems.

<table>
<thead>
<tr>
<th>Faculty Members’ Use of Expert Systems</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use Status</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Used</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Not used</td>
</tr>
<tr>
<td>Unknown</td>
</tr>
<tr>
<td>Not mentioned</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Table 4.36
Faculty Members’ Use of Expert Systems

![Bar Chart: Faculty Members’ Use of Expert Systems]

**Observation:**
Data displays that Total 43.2% (8.8% Frequency, 12.9% sometimes and 21.5% rarely) of faculty members used expert systems followed by 21.7 did not use, 23.2% did not know and 11.9% did not specify anything.

**Interpretation:**
It indicates that Less than half of faculty members used expert systems

### 4.34 USE OF DIGITAL TV & RADIO

*Faculty members were requested (question-33) to mention the use of Digital TV & Radio.*

**Faculty Members’ Use of Digital TV & Radio**

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Digital TV &amp; Radio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>111</td>
</tr>
<tr>
<td>Used</td>
<td>Sometimes</td>
<td>126</td>
</tr>
<tr>
<td>Used</td>
<td>Rarely</td>
<td>87</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>6</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td><strong>410</strong></td>
</tr>
</tbody>
</table>

*Table – 4.37*
Observation:
Data reveals that Total 78.9% (27. % Frequently, 30.7% sometimes and 21.2% rarely) of academics used digital TV & Radio followed by 9.8% did not use, 1.5% did not know and 9.8% did not mention anything.

Interpretation:
It shows that many academics used digital TV & Radio

4.35 USE OF MOBILE

Faculty members were asked (question-35) to mention the use of mobile

<table>
<thead>
<tr>
<th>Type of Technology</th>
<th>Use Status</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile</td>
<td>Frequently</td>
<td>308</td>
<td>75.1</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>57</td>
<td>13.9</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>24</td>
<td>5.9</td>
</tr>
<tr>
<td>Not used</td>
<td>10</td>
<td>2.4</td>
<td></td>
</tr>
<tr>
<td>Not mentioned</td>
<td>11</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table – 4.38

Observation:
Data shows that Total 94.9% (75.1% Frequently, 13.9% sometimes, 5.9% rarely) of the respondents used mobile, 2.4% did not use and 2.7 did not specify their use.

Interpretation:
It shows that majority of the respondents used mobile.
INTERNET SERVICES

4.36 USE OF WEB

Faculty members were asked (question-36) to mention the use of web.

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Internet Services</th>
<th>Web</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Frequently</td>
<td>Web</td>
<td>228</td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td>79</td>
</tr>
<tr>
<td>Rarely</td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table – 4.39

Observation:

Data indicates that Total 85.6% (55.6% Frequently, 19.3% sometimes 10.7% rarely) of faculty members used web of the Internet, 5.6% did not use, 1% did not know, 7.8% did not mention anything.

Interpretation:

Web is a unique service offered by the Internet, it is a huge collection of pages containing text, graphics and other media. The study shows that the www, which offers access to multimedia data has enhanced this activity even further through facilities such as search engines, meta-search engines and information gateways. The www holds more useful, up-to-date and relevant information.
4.37 USE OF E-MAIL

Faculty members were asked (question-37) to mention the use of E-mail.

Faculty Member’ Use of E-mail

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>E-mail</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>302</td>
</tr>
<tr>
<td>Used</td>
<td>Sometimes</td>
<td>65</td>
</tr>
<tr>
<td>Used</td>
<td>Rarely</td>
<td>26</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.40

Faculty Member’ Use of E-mail

Observation: data shows that: Total 95.9% (73.7% Frequently, 15.9% sometimes and 6.3% rarely) of faculty members used e-mail, 0.7% did not use and 3.4% did not mention anything.

Interpretation: It shows that majority of faculty members used E-mail. It, described as the most widely used Internet facility, has greatly enhanced communication globally. It also serves as a tool for supporting networking by professionals in different geographical locations. It is reliable and provides an immediate response. It is faster than conventional postal service or any next day delivery service.
4.38 USE OF DIGITAL PUBLISHING

Faculty members were asked (question-38) to mention the use of digital publishing.

Faculty Members’ Use of Digital Publishings

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Digital Publishings</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used</td>
<td>Frequently</td>
<td></td>
<td>38</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td></td>
<td>119</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td></td>
<td>110</td>
<td>27</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td></td>
<td>57</td>
<td>14</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td></td>
<td>57</td>
<td>14</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td></td>
<td>29</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.41

Faculty Members’ Use of Digital Publishings

![Pie chart showing the distribution of digital publishing usage]

Figure – 4.24

Observation:

Data indicates that: Total 65% (9% Frequently, 29% sometimes and 27% rarely) of faculty members used digital publishing, 14% did not use, 14% did not know and 7% did not mention anything.

Interpretation:

It indicates that majority of faculty members used digital publishing
4.39 USE OF FTP

The Internet tool used mainly to transfer files from one computer to another is FTP. *Faculty members were asked (question-39) to mention the use of FTP.*

<table>
<thead>
<tr>
<th>Faculty Members’ Use of FTP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Internet Services</strong></td>
</tr>
<tr>
<td><strong>Use Status</strong></td>
</tr>
<tr>
<td>Used</td>
</tr>
<tr>
<td>Frequently</td>
</tr>
<tr>
<td>Sometimes</td>
</tr>
<tr>
<td>Rarely</td>
</tr>
<tr>
<td>Not used</td>
</tr>
<tr>
<td>Unknown</td>
</tr>
<tr>
<td>Not mentioned</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

**Observation:**

Data indicates that: Total 49.7% (4.6% Frequently, 21% sometimes and 24.1% rarely) of faculty members used FTP, 19.3% did not use and 23.2% did not know and 7.8% did not mention anything.

**Interpretation:**

According data majority of academics used FTP because of File Transfer Protocol (FTP) which enables users to download files from other computer systems or to upload their own files to these systems. The File Transfer Protocol (FTP) and the Telnet facility allow users to utilize information at remote locations.
4.40 USE OF TELNET (REMOTE LOGIN)

Faculty members were asked (question-4) to mention the use of Telnet.

### Faculty Members’ Use of Telnet

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Telnet</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frequently</td>
<td>31</td>
<td>7.6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>97</td>
<td>23.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>90</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>69</td>
<td>16.8</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>95</td>
<td>23.1</td>
<td></td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>28</td>
<td>6.8</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.43

**Figure – 4.25**

**Observation:** data shows that Total 53.3% (7.6% Frequently, 23.7% sometimes and 22% rarely) of faculty members used telnet, 16.8% did not use, 23.1% did not know and 6.8% did not mention anything.

**Interpretation:** It shows that more than half of faculty members used Telnet. As Telnet allows an internet user to logging to remote host from the local host. Once connected and logged into the remote host, the user can enter data, run programs, or do any other operation just as if user were logged in directly to the remote host.
4.41 USE OF SEARCH TOOLS

Faculty members were asked (question-41) to mention the use of Search Tools.

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Search Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>217</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>41</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>32</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.44

Faculty Members’ Use of Search Tools

Figure – 4.26

Observation: Data shows that:
Total 83.9% (52.9% Frequently, 21% sometimes and 10% rarely) of faculty members used search tools, 5.6% did not use, 2.7% did not know and 7.8% did not specify their use.

Interpretation:
If we observe the above statistics we can easily draw the conclusion that the percentage of faculty members who used search tools more than the percentage of faculty members who didn’t used search tools.
4.42 USE OF NEWS SERVICES ON THE INTERNET

Faculty members were asked (question-42) to mention the use of news service on the Internet.

Faculty Members’ Use of News Services on the Internet

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of Network</th>
<th>News Services</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used</td>
<td>Frequently</td>
<td></td>
<td>238</td>
<td>58</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td></td>
<td>104</td>
<td>25.4</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td></td>
<td>43</td>
<td>10.4</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td></td>
<td>10</td>
<td>2.5</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td></td>
<td>15</td>
<td>3.7</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.45

Faculty Members’ Use of News Services on the Internet

**Figure - 4.27**

Observation:

Data indicates that: Total 93.8% (58% Frequently, 25.4% sometimes and 10.4% rarely) of faculty members used news services on the Internet, 2.5% did not use and 3.7% did not mention anything.

Interpretation:

Majority of faculty members used news services on the Internet.
4.43 USE OF GUIDE SERVICES ON THE INTERNET

Faculty Members were requested (question-43) to mention the use of guide services on the Internet.

Faculty Members’ Use of Guide Services on the Internet

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Internet Service</th>
<th>Guide Services</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>118</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>119</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>74</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>58</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.46

Observation: data shows that total 75.8% (28.8% Frequently, 29% sometimes and 18% rarely) of faculty members used guide services on the Internet, 14.2% did not use, 4.9% did not know, and 5.1% did not specify their use.

Interpretation: Majority of faculty members used guide services on the Internet.

4.44 USE OF VIDEOCONFERENCE

Videoconferencing is an important tool for various educational systems.

Faculty Members were requested (question-44) to mention the use of videoconference.

Faculty Members’ Use of Videoconference

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Videoconference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>134</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>86</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>91</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>71</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.47
Faculty Members’ Use of Videoconference

Figure – 4.28

Observation: Data illustrates that: Total 75.9% (32.7% Frequently, 21% sometimes and 22.2% rarely) of faculty members used videoconference, 17.3% did not use and 2% did not know and 4.8 did not mention anything.

Interpretation: Videoconferencing describes a process that can link faculty members in different parts of the country or world. It has considerable potential for education. While using videoconferencing teacher can link: one student to another-each has a small camera located on top of the computer and can see a picture of themselves and their correspondents on screen. One person to a group - a more typical teaching or lecturing scenario. One group to another group. A number of groups to each other - an option which requires a lot of equipment.

4.45 USE OF DISCUSSION GROUPS

Discussion groups, another facility on the Internet, allows users to follow issues of the Interest and therefore keep up-to-date on these issues. Discussion groups are available on almost every topic from literature to technology. It is an excellent way to share the knowledge and information.

Faculty members were asked (question-45) to mention the use of discussion groups.
Faculty Members’ Use of Discussion Groups

<table>
<thead>
<tr>
<th>The Internet Services Use Status</th>
<th>Discussion Groups</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Frequently</td>
<td></td>
<td>103</td>
<td>25.1</td>
</tr>
<tr>
<td>Sometimes</td>
<td></td>
<td>100</td>
<td>24.4</td>
</tr>
<tr>
<td>Rarely</td>
<td></td>
<td>97</td>
<td>23.7</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>75</td>
<td>18.3</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>10</td>
<td>2.4</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>25</td>
<td>6.1</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td><strong>410</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

Table – 4.48

Observation: data represents that: Total 73.2% (25.1% Frequently, 24.4% Sometimes and 23.7% Rarely) of faculty members used discussion groups, 18.3% did not take part in discussion group, 2.4% did not know and 6.1% did not mention anything.

Interpretation: According to data maximum faculty members used discussion groups, because discussion groups or electronic conferences can fulfil teaching needs. Also use of these systems would have positive influence on academics interactions with students in his/her field. Electronic discussion groups and other internet services is influencing the use of more traditional channels for exchanging information like meeting and conferences.

4.46 USE OF NEWSGROUPS

Newsgroups is like an online notice board generated by people with common interests (allows users to follow issues of interest and therefore keep up to date on these issues). Anyone can look at the notice board, add new messages and answer current ones. Newsgroups are a great way to swap thoughts, ideas and information about different topics ranging from broad subjects.

Faculty members were asked (question-46) to mention the use of News groups.
Faculty Members’ Use of Newsgroups

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Newsgroups</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
<td></td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>94</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>99</td>
<td>24.1</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>120</td>
<td>29.2</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>66</td>
<td>16.1</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>13</td>
<td>3.2</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>18</td>
<td>4.4</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

**Observation:** data shows that: Total 76.3% (23% Frequently used, 24.1% sometimes and 29.2% rarely) of academic members used newsgroups, 16.1% did not use, 3.2% did not know and 4.4% did not specify anything.

**Interpretation:** It is observed that maximum academic members used newsgroups, as news groups has helped a lot in keeping them up to date with latest research. E-mail news groups help keep abreast of who’s who, what’s happening, what are “buzz” concepts around in the field, what people think is important.

**4.47 USE OF ONLINE SHOPPING**

*Faculty members were asked (question-47) to mention the use of online shopping.*

Faculty Members’ Use of Online Shopping

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of ICT</th>
<th>Online Shopping</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>68</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>104</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>123</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>79</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.50
Faculty Members’ Use of Online Shopping

![Bar chart showing usage of online shopping by faculty members]

**Figure – 4.29**

**Observation:** Data illustrates that total 72% (16.6% Frequency, 25.4% sometimes and 30% rarely) of faculty members used online shopping, 19.3% did not use and 2.7% did not know and 6% did not mention.

**Interpretation:** The percentage of faculty members who used online shopping more than of percentage of faculty members who didn’t use online shopping. Because the availability of online resources has opened many doors and changed the way academics conduct research.

### 4.48 USE OF SMS

**Faculty members were asked (question-48) to mention the use of SMS.**

**Faculty Members’ Use of SMS**

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Internet Sevices</th>
<th>Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used Frequency</td>
<td>148</td>
<td>36.1</td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td>99</td>
<td>24.1</td>
<td></td>
</tr>
<tr>
<td>Rarely</td>
<td>110</td>
<td>26.8</td>
<td></td>
</tr>
<tr>
<td>Not used</td>
<td>38</td>
<td>9.3</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td>2</td>
<td>.5</td>
<td></td>
</tr>
<tr>
<td>Not mentioned</td>
<td>13</td>
<td>3.2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

**Table – 4.51**
Observation:

Data shows that: Total 87% (36.1% Frequently, 24.1% sometimes and 26.8% rarely) of faculty members used SMS on the Internet, 9.3% did not use, 5% did not know and 3.2% did not specify their use.

Interpretation: With the help of above observation we can say that percentage of who used SMS more than of percentage of faculty members who didn’t used SMS.

4.49 USE OF CHAT ON THE INTERNET

Faculty members were asked (question-49), to mention the use of chat on the Internet.

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Internet Services</th>
<th>Chat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>229</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>39</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>74</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>52</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table-4.52

Observation:

Data shows that total 83.4% (55.9% Frequently, 9.5% sometimes, and 18% rarely) of academics took part chat on the Internet, 12.7% did not take part, 1.2% did not know and 2.7% did not mention anything.

Interpretation:

It means that many of academics used chat on the Internet. Chat rooms are an example of real time discussions. It is a form of distant communication. Chat rooms are very numerous and diverse on the Internet. According above data can say chat enhances the user’s
communication abilities. In other words, chat enable academics to communicate or disseminate information in ways which conquer some of the barriers of status, time and space. Using chat communications (face-to-face communications) to replace telephone.

4.50 USE OF FORMS & FORMATS FROM INTERNET

Faculty members were asked (question-50), to mention the use of different downloading formats and forms on the Internet.

Faculty Members' Use of different Formats from the Internet

<table>
<thead>
<tr>
<th>Formats from the Internet</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full Texts</td>
<td>50</td>
<td>12.2</td>
</tr>
<tr>
<td>References</td>
<td>71</td>
<td>17.3</td>
</tr>
<tr>
<td>Softwares</td>
<td>25</td>
<td>6.1</td>
</tr>
<tr>
<td>Abstracts</td>
<td>60</td>
<td>14.6</td>
</tr>
<tr>
<td>Multimedia</td>
<td>27</td>
<td>6.6</td>
</tr>
<tr>
<td>Full Texts &amp; References &amp; Abstracts</td>
<td>32</td>
<td>7.8</td>
</tr>
<tr>
<td>References &amp; Abstracts &amp; Multimedia</td>
<td>30</td>
<td>7.4</td>
</tr>
<tr>
<td>All of them</td>
<td>97</td>
<td>23.7</td>
</tr>
<tr>
<td>Not Mentioned</td>
<td>18</td>
<td>4.3</td>
</tr>
<tr>
<td><strong>Total</strong> has</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.53

Faculty Members' Use of different Formats from the Internet

Figure - 4.30

176
Observation: data shows that: 17.3% of respondents downloaded reference formats on the Internet followed by 14.6% abstract, 12.2% full text, 7.6% Ref & Ab & multimedia, 7.6% full text & Ref & Ab., 6.6% multimedia only, 6.1% software, 23.7% maximum downloaded all the mentioned formats and 4.4% did not specify any forms and formats.

Interpretation: It means that majority of academics used all formats.

4.51 USE OF SEARCH ENGINES

Faculty members were requested (question-51), to mention the search engines they use.

Faculty members’ Use of Search Engines

<table>
<thead>
<tr>
<th>Use Purpose</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yahoo</td>
<td>61</td>
<td>14.9</td>
</tr>
<tr>
<td>Google</td>
<td>73</td>
<td>17.8</td>
</tr>
<tr>
<td>AltaVista</td>
<td>27</td>
<td>6.6</td>
</tr>
<tr>
<td>Live Search</td>
<td>7</td>
<td>1.6</td>
</tr>
<tr>
<td>Ask.com</td>
<td>11</td>
<td>2.7</td>
</tr>
<tr>
<td>Gigablast</td>
<td>4</td>
<td>1.0</td>
</tr>
<tr>
<td>Yahoo &amp; Google</td>
<td>194</td>
<td>47.3</td>
</tr>
<tr>
<td>All</td>
<td>25</td>
<td>6.1</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>8</td>
<td>2.0</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table – 4.54

Observation:

Data shows that: 47.3% of respondents used Yahoo and Google search engines followed by 17.8% Google, 14.9% Yahoo, 6.6% AltaVista, 2.7% Ask.com, 1.6% Live Search, 1% Gigablast and 6.1% all the mentioned search engines and 2% did not mentioned.

Interpretation:

The most used Search Engines among the respondents were: Yahoo and Google. Very few respondents used different type of
Search Engines Such as yahoo and google. The search engines also give the users rapid access to electronic and published information available through the internet.

4.52 THE INTERNET ADVANTAGES

Faculty members were asked (question-52), to mention about the advantages of the Internet.

Faculty Members’ Views about Internet Advantages

<table>
<thead>
<tr>
<th>Internet Advantages</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Speed</td>
<td>167</td>
<td>40.7</td>
</tr>
<tr>
<td>Accessibility</td>
<td>53</td>
<td>12.9</td>
</tr>
<tr>
<td>Breadth of Information</td>
<td>57</td>
<td>13.9</td>
</tr>
<tr>
<td>Economy</td>
<td>19</td>
<td>4.6</td>
</tr>
<tr>
<td>Multimedia and Hypermedia</td>
<td>47</td>
<td>11.5</td>
</tr>
<tr>
<td>All</td>
<td>55</td>
<td>13.4</td>
</tr>
<tr>
<td>Not Mentioned</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.55

Faculty Members’ Views about Internet Advantages

Observation:

Data indicates that: 40.7% of respondents' reported their priority is the speed of the Internet followed by 13.9% breadth of information, 12.9% accessibility, 11.5% multimedia and hypermedia, 4.6%

178
economy and 13.4% all of the mentioned advantages. 3% of respondents did not mention anything.

**Interpretation:** It shows that the speed of the Internet is very important.

### 4.53 ACADEMIC PAPERS ON THE INTERNET

Faculty members were asked (question-53), to mention they have academic paper on the Internet or no.

#### Faculty Members’ Academic Productivity on the Internet

<table>
<thead>
<tr>
<th>Productivity on the Internet</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>268</td>
<td>65</td>
</tr>
<tr>
<td>No</td>
<td>123</td>
<td>30</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>19</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.56

**Observation:** data indicates that 65% of faculty members had academic articles/papers on the Internet, 30% had no articles and 5% did not specify anything.

**Interpretation:** It shows that more than half (65%) of Education faculty members had academic articles/papers on the Internet. It shows faculty members are interested in writing papers and articles.
Faculty members were requested (question-54) to mention they had personal homepage on the Internet or no.

Faculty Members’ Personal Homepage on the Internet

<table>
<thead>
<tr>
<th>Homepage on the Internet</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>223</td>
<td>54.4</td>
</tr>
<tr>
<td>No</td>
<td>156</td>
<td>38</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>31</td>
<td>7.6</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.57

Faculty Members’ Personal Homepage on the Internet

Observation:

Data shows that 54.4% of faculty members had personal homepage on the Internet, 38% had not any personal homepage and 7.6% did not specify anything.

Interpretation:

It reveals that more than half of faculty members had personal homepage on the Internet. According above data can say the recent developments of WWW have encouraged many individuals and institutions to publish their information through their own homepages. Faculty members had homepage and every time they wanted to opened the browser.
4.55 USE OF ERIC DATABANKS

Faculty members were asked (question-55) to mention the use of Eric Databanks.

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of Databank</th>
<th>ERIC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>101</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>96</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>42</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>78</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>19</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table – 4.58

Observation: data indicates that total 66% (18% Frequently, 24.6% sometimes, 23.4% rarely) of faculty members used Eric databanks, 10.4% did not use, 19% did not know, 4.6% did not mention anything.

Interpretation: It shows that majority of faculty members used Eric databanks.

4.56 USE OF RESEARCH SURVEY DATABANKS

Faculty members were asked (question-56) to mention the use of research survey Databanks.

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of Databank</th>
<th>Intranet</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>95</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>108</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>89</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>47</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>48</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>23</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table–4.59
Observation:

Data indicates that: Total 71.2% (23.2% Frequently, 26.3% sometimes and 21.7% rarely) of faculty members used research survey databanks, 11.5% did not use, 11.7% did not know and 5.6% did not mention anything.

Interpretation:

It indicates that many of faculty members used research survey databanks.

4.57 USE OF BOOK DATA BANKS

Faculty members were asked (question-57) to mention the use of Book Databanks.

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of Databank</th>
<th>Book Databank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>106</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>74</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>40</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>26</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table – 4.60

Observation:

Data indicates that: Total 79% (35.1% Frequency, 25.9% sometimes and 18% rarely) of faculty members used book databanks, 9.8% did not use, 4.8% did not know and 6.4% did not mention anything.

Interpretation:

According to above data maximum of faculty members used book databanks.
4.58 USE OF QUESTION DATABANKS

Faculty members were asked (question-58) to mention the use of Question Databanks.

**Faculty Members’ Use of Question Databank**

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of Databank</th>
<th>Question Databank</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>143</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>89</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>82</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>38</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>33</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table – 4.61

**Observation:** data indicates that Total 76.6% (34.9% Frequency, 21.7% sometimes and 20% rarely) of faculty members used question databanks, 9.3% did not use, 8% did not know, and 6.1% did not mention anything.

**Interpretation:** The percentage of faculty members who used question databanks more than the percentage of faculty members who didn’t use question databanks.

4.59 USE OF MS OFFICE POWER POINT

Faculty members were asked (question-59) to mention the use of Power point.

**Faculty Members Use of Power Point**

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of softwares</th>
<th>Power Point</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>302</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>60</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>22</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>8</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.62
Faculty members use of power point

*Figure - 4.34*

**Observation:** data illustrates that: Total 93.7% (73.7% Frequently, 14.6% sometimes and 5.4% rarely) of faculty members Power Point, 2% did not use 4.3% did not mention anything.

**Interpretation:** It means that many of faculty members used Power Point. Another Software is power point which helps faculty members to present their information in a lucid way. As Microsoft Power Point presentation has a great potential to accelerate the learning process. They used power point for their papers in conferences, Articles, research works.

### 4.60 USE OF MS OFFICE WORD

*Faculty members were asked (question-60) to mention the use of Word.*

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of softwares</th>
<th>Word</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>338</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>7</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>4</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table 4.63
Faculty Members Use of Word

**Observation:** data illustrates that Total 94.8% (82.4% Frequently, 10.7% sometimes and 1.7% rarely) of faculty members used Word, 1% did not use and 4.2% did not mention anything.

**Interpretation** Majority faculty members used Word. Because Word is a powerful tool to create, edit, and format text in a variety of ways. An added advantage is that the information can be stored digitally more or less forever, allowing one to revisit the information and change it. The faculty members used Word for paper writing, writing a book, etc.

### 4.61 USE OF MS OFFICE EXCEL

Faculty members were asked (question-61) to mention the use of Excel.

#### Faculty Members’ Use of Excel

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of softwares</th>
<th>Excel</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Responses</td>
<td>Percentage</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>178</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>66</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>90</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>44</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>5</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>27</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table – 4.64
Observation:

Data indicates that: Total 81.5% (43.4% Frequently, 16.1% sometimes and 22% rarely) of faculty members used Excel, 10.7% did not use, 1.2% did not know, and 6.6% did not mention anything.

Interpretation:

It indicates that majority faculty members used Excel because faculty members for create web pages and presentation their information have to using Microsoft Excel and word.

4.62 USE OF SPSS

Faculty members were asked (question-62) to mention the use of SPSS.

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of softwares</th>
<th>SPSS</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Number of Responses</td>
</tr>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>98</td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>112</td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>66</td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>24</td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>30</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
</tr>
</tbody>
</table>

Table – 4.65

Observation:

Data showsthat total 70.7% (19.5% Frequently, 23.9% sometimes and 27.3% rarely) of faculty members used SPSS, 16.1% did not use, 5.9% did not know, and 7.3% did not mention anything.

Interpretation:

It indicates that majority faculty members used SPSS. As faculty members for doing research working have to familiar with data analysis ways like SPSS.
4.63 USE OF GRAPHIC

Faculty members were asked (question-63) to mention the use of Graphic.

<table>
<thead>
<tr>
<th>Use Status</th>
<th>Type of softwares</th>
<th>Graphic</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Used</td>
<td>Frequently</td>
<td>48</td>
<td>11.7</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sometimes</td>
<td>73</td>
<td>17.8</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Rarely</td>
<td>141</td>
<td>34.4</td>
<td></td>
</tr>
<tr>
<td>Not used</td>
<td></td>
<td>97</td>
<td>23.7</td>
<td></td>
</tr>
<tr>
<td>Unknown</td>
<td></td>
<td>26</td>
<td>6.3</td>
<td></td>
</tr>
<tr>
<td>Not mentioned</td>
<td></td>
<td>25</td>
<td>6.1</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>410</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

Table 4.66

Observation: data shows that total 63.9% (11.7% Frequently, 17.8% sometimes and 34.4% rarely) of faculty members used Graphic, 23.7% did not use, 6.3% did not know, and 6.1% did not mention anything.

Interpretation: It shows that more than half of faculty members used Graphic. Graphics are picture, drawing or diagram. Graphics programs are used to produce these images on a computer. the images can be two dimensional or three dimensional.

4.64 USE OF ICT IN TEACHING ACTIVITIES

Faculty members were requested (question-64) to mention the use of ICT in their teaching activities.

<table>
<thead>
<tr>
<th>Activities</th>
<th>Classroom Lectures</th>
<th>Workshop presentations</th>
<th>CAI (Computer Aided Instruction) presentation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Use status</td>
<td>Frequently Percentage</td>
<td>Frequently Percentage</td>
<td>Frequently Percentage</td>
</tr>
<tr>
<td>Use</td>
<td>337 82.2</td>
<td>327 79.8</td>
<td>231 56.3</td>
</tr>
<tr>
<td>Not used</td>
<td>35 8.5</td>
<td>39 9.5</td>
<td>87 21.3</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>38 9.3</td>
<td>44 10.7</td>
<td>92 22.4</td>
</tr>
<tr>
<td>Total</td>
<td>410 100</td>
<td>410 100</td>
<td>410 100</td>
</tr>
</tbody>
</table>

Table 4.67
Observation: data shows that: 82.2% of respondents used ICT in classroom lectures followed by 79.8% in workshop presentations and 56.3% in CAL presentations.

Interpretation: data shows that majority of faculty members for teaching activities such as classroom lectures, workshop presentations, and CAL presentation used ICT.

4.65 USE OF ICT IN RESEARCH ACTIVITIES

Faculty members were asked (question-65) to mention the use of ICT in their research activities.

<table>
<thead>
<tr>
<th>ICT Use status</th>
<th>Activities</th>
<th>Used</th>
<th>Not used</th>
<th>Not mentioned</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Freq-</td>
<td>Percent-</td>
<td>Freq-</td>
<td>Percent-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>uently</td>
<td>tage</td>
<td>uently</td>
<td>tage</td>
</tr>
<tr>
<td>Writing a book</td>
<td></td>
<td>306</td>
<td>74.7</td>
<td>85</td>
<td>20.7</td>
</tr>
<tr>
<td>Paper writing</td>
<td></td>
<td>331</td>
<td>80.7</td>
<td>54</td>
<td>13.2</td>
</tr>
<tr>
<td>Paper presentation in</td>
<td></td>
<td>342</td>
<td>83.4</td>
<td>40</td>
<td>9.8</td>
</tr>
<tr>
<td>Conference</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doing Research</td>
<td></td>
<td>293</td>
<td>71.5</td>
<td>85</td>
<td>20.7</td>
</tr>
<tr>
<td>works</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Seminars</td>
<td></td>
<td>351</td>
<td>85.6</td>
<td>37</td>
<td>9</td>
</tr>
<tr>
<td>Publications</td>
<td></td>
<td>182</td>
<td>44.4</td>
<td>164</td>
<td>40</td>
</tr>
<tr>
<td>Weekly Presentations</td>
<td></td>
<td>242</td>
<td>59</td>
<td>121</td>
<td>29.5</td>
</tr>
</tbody>
</table>

Table 4.68

Observation: data indicates that: 74.7% of respondents used ICT in book writing, followed by 80.7% in paper writing, 83.4% in
conferences paper presentations, 71.5% in research works, 85.6% in seminars, 44.4% in publications and 59% in weekly presentations.

**Interpretation:**

It shows that majority of faculty members for Research activities such as: writing a book paper writing, conferences paper presentations, research work, seminars publications weekly presentations used ICT.

### 4.66 FACULTY MEMBERS PARTICIPATION IN ICT COURSES

*Faculty members were requested part one (question-66) to mention whether they passed ICT training course or not.*

<table>
<thead>
<tr>
<th>Participation ICT Courses</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>311</td>
<td>76</td>
</tr>
<tr>
<td>No (Self - Teaching )</td>
<td>85</td>
<td>21</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

*Table 4.69*

**Observation:** data displays that: 76% of respondents took part in ICT training courses, 21% did not participate and 3% did not specify anything.
**Interpretation:** It shows that majority (76%) of faculty members took part in ICT training courses. Thus, ICT training courses are important.

4.67 **TYPE OF ICT LEARNING COURSES PASSED BY FACULTY MEMBERS**

Faculty members were asked part two (question-66) to mention the type of ICT course passed.

Faculty Members Participation in ICT Learning Courses

<table>
<thead>
<tr>
<th>Participation in ICT Learning Courses</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Computer</td>
<td>61</td>
<td>14.9</td>
</tr>
<tr>
<td>Internet</td>
<td>48</td>
<td>12.6</td>
</tr>
<tr>
<td>MS Office</td>
<td>28</td>
<td>6.5</td>
</tr>
<tr>
<td>Presentation by Technology</td>
<td>20</td>
<td>4.9</td>
</tr>
<tr>
<td>Software Application</td>
<td>26</td>
<td>6.3</td>
</tr>
<tr>
<td>Net Works</td>
<td>28</td>
<td>6.5</td>
</tr>
<tr>
<td>Computer &amp; Internet</td>
<td>63</td>
<td>15.3</td>
</tr>
<tr>
<td>All</td>
<td>37</td>
<td>9</td>
</tr>
<tr>
<td>Self – Teaching</td>
<td>85</td>
<td>21</td>
</tr>
<tr>
<td>Not Mentioned</td>
<td>14</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.70

**Faculty Members Participation in ICT Learning Courses**

![Bar Chart](image)

**Figure 4.37**

190
Observation: Data shows that 14.9% of faculty members participated in computer use training course followed by 15.3% computer & Internet, 12.6% Internet use, 6.5 MS Office, 6.5% networks, 4.9% presentation by technology and 6.3% software applications. 21% have self-teaching and .3% did not specify anything.

Interpretation: It shows that majority of faculty members participation in Computer and Internet Learning Courses

4.68 ENCOURAGING FACTORS

Faculty members were requested (question-67) to mention the factors which help and motivate them to increase use of ICT.

Factors Motivate Faculty Members to Use ICT

<table>
<thead>
<tr>
<th>Factors Motivate to Use ICT</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy Accessing</td>
<td>87</td>
<td>21.2</td>
</tr>
<tr>
<td>Introducing ICT</td>
<td>71</td>
<td>17.3</td>
</tr>
<tr>
<td>Teaching how to use ICT</td>
<td>114</td>
<td>27.8</td>
</tr>
<tr>
<td>Practicing ICT</td>
<td>56</td>
<td>13.7</td>
</tr>
<tr>
<td>All</td>
<td>50</td>
<td>12.2</td>
</tr>
<tr>
<td>Not Mentioned</td>
<td>32</td>
<td>7.8</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.71

Factors Motivate Faculty Members to Use ICT

Figure - 4.38
Observation: data indicates that: 27.8% (majority) of faculty members believed that teaching how to use ICT help them to increase use of ICT followed by 21.2% easy accessing to ICT, 17.3% introducing ICT and 13.7% practicing ICT and 12.2% all the above mentioned factors. 7.8% of respondents did not specify anything.

Interpretation: data indicates that: Majority (27.8%) of faculty members believed that teaching how to use ICT help them encouragements to increase use of ICT.

4.69 ACCESSIBILITY TO ICT FACILITIES

Faculty members were requested (question-68) to mention about ICT facilities the access in their work place.

Faculty Members Accessibility to ICT Facilities

<table>
<thead>
<tr>
<th>Accessibility to ICT Facilities</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sometimes</td>
<td>70</td>
<td>17</td>
</tr>
<tr>
<td>Rarely</td>
<td>67</td>
<td>16</td>
</tr>
<tr>
<td>Always</td>
<td>233</td>
<td>57</td>
</tr>
<tr>
<td>No - never</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>17</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.72

Observation: Data indicates that: 57% of respondents "always" has accessed to ICT facilities in their work place followed by 17%
reported sometimes, 16% reported rarely and 6% reported never. 4% of them did not specify anything.

Interpretation: It shows that majority of faculty members “always” has accessed to ICT facilities in their work place

4.70 SATISFACTION AND DISSATISFACTION WITH ICT FACILITIES

Faculty members were asked (question-69) to mention about their satisfaction and dissatisfaction of the ICT facilities in their departments.

Faculty Member’s Satisfaction and Dissatisfaction with ICT Facilities

<table>
<thead>
<tr>
<th>Satisfaction and Dissatisfaction</th>
<th>Number of Responses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Satisfactory</td>
<td>46</td>
<td>11.2</td>
</tr>
<tr>
<td>Very Satisfactory</td>
<td>45</td>
<td>11</td>
</tr>
<tr>
<td>Satisfactory</td>
<td>306</td>
<td>74.6</td>
</tr>
<tr>
<td>Can’t Say</td>
<td>1</td>
<td>.3</td>
</tr>
<tr>
<td>Not mentioned</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4.73

Faculty Member’s Satisfaction & Dissatisfaction with ICT Facilities.

Figure 4.40

Observation: Data indicates that 74.6% (maximum) of the respondents reported their satisfaction of the ICT facilities in their
teaching departments followed by 11.6% reported unsatisfaction, 11.2% very satisfactory and 3% marked "can't say". 3.2% of them did not take part in the evaluation.

**Interpretation:** It shows that majority of faculty members satisfaction of the ICT facilities in their teaching departments.

### 4.71 BARRIERS AND DIFFICULTIES IN USING ICT

In one open question faculty members were requested to mention their views and the problems they were faced while using ICT.

**The important problems mentioned by faculty members**

<table>
<thead>
<tr>
<th>problems mentioned by faculty members</th>
<th>Number of Respondents</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-computers, printers, software tools, supplies and full text databanks were inadequate.</td>
<td>74</td>
<td>18.1</td>
</tr>
<tr>
<td>2-speed of the Internet is low.</td>
<td>120</td>
<td>29.3</td>
</tr>
<tr>
<td>3- ICT training and experience for faculty members, funding and budget for ICT facilities were inadequate.</td>
<td>86</td>
<td>20.9</td>
</tr>
<tr>
<td>4-inaccessibility and dis connectivity to the Internet</td>
<td>69</td>
<td>16.9</td>
</tr>
<tr>
<td>5-Lack of projection systems and audio visual aids in classroom</td>
<td>61</td>
<td>14.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>410</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Table 4.74**

**Observation:** data shows that inadequate computer and low of speed internet, inadequate ICT training, inaccessibility and dis connectivity to the Internet lack of projection systems are important problems faced by faculty members

**Interpretation:** according above data can say low's speed of the Internet and ICT training and experience were most important problems face by faculty members
### 4.72 BENEFITS OF ICT

In one open question faculty members were asked to mention the benefits of ICT.

Views' faculty members about **benefits of ICT**

<table>
<thead>
<tr>
<th>BENEFITS OF ICT</th>
<th>Number of Respondents</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Save time in seeking information</td>
<td>46</td>
<td>11.2</td>
</tr>
<tr>
<td>2-Find up to date information and Keep every one up to date</td>
<td>33</td>
<td>8</td>
</tr>
<tr>
<td>3-Foster Communication</td>
<td>51</td>
<td>12.4</td>
</tr>
<tr>
<td>Communication with world</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-Access to external information</td>
<td>14</td>
<td>3.4</td>
</tr>
<tr>
<td>5-The use of ICT as a learning tool can make a measurable difference in student achievement , attitudes , and interactions with faculty members and other students</td>
<td>11</td>
<td>2.7</td>
</tr>
<tr>
<td>6-Through the use of New Technologies, users are more challenged, more engaged, more independent, and encouraged to experiment and explore the new frontiers of knowledge</td>
<td>21</td>
<td>5.2</td>
</tr>
<tr>
<td>7-Use of New Technologies had positive effects on increasing motivation &amp; improvements in academic performance</td>
<td>28</td>
<td>6.9</td>
</tr>
<tr>
<td>8-ICT has the potential of support improvements in aspects such as improved writing skills</td>
<td>10</td>
<td>2.4</td>
</tr>
<tr>
<td>9-The use of ICT helps facilitates communication among students, faculty members , etc. both within class and outside of class</td>
<td>15</td>
<td>3.6</td>
</tr>
<tr>
<td></td>
<td>New Technologies helps users learning foreign language</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td>--------------------------------------------------------</td>
<td>---</td>
</tr>
<tr>
<td><strong>10</strong></td>
<td>New Technologies helps users learning foreign language</td>
<td>8</td>
</tr>
<tr>
<td><strong>11</strong></td>
<td>New Technologies changing in work patterns. A academic faculty can have an entire class work on a CAL package and yet provide very little input during the session</td>
<td>18</td>
</tr>
<tr>
<td><strong>12</strong></td>
<td>New Technologies creating new jobs, and changing in job skills</td>
<td>6</td>
</tr>
<tr>
<td><strong>13</strong></td>
<td>New technologies allows users to learn and search their need knowledge at any time and place</td>
<td>40</td>
</tr>
<tr>
<td><strong>14</strong></td>
<td>Use ICT can help People to keep in contact with family and friends Via E-mail</td>
<td>23</td>
</tr>
<tr>
<td><strong>15</strong></td>
<td>New technologies help users (children) Using word processing and graphing tools to doing their homework</td>
<td>16</td>
</tr>
<tr>
<td><strong>16</strong></td>
<td>people with new technologies are able to express themselves creatively</td>
<td>13</td>
</tr>
<tr>
<td><strong>17</strong></td>
<td>The use of communication tools such as E-mail, fax, computer, and videoconferencing overcomes barriers of space and time, and opens new possibilities for learning</td>
<td>57</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>410</td>
<td>100</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table 4.75</th>
</tr>
</thead>
</table>

**Observation** :data shows that 11.2% faculty members Save time in seeking information 8% them Find up to date information and Keep every one up todate 12.4% them Foster Communication Communication with world 3.4% faculty members Access to external information 2.7% them The use of ICT as a learning tool can make a measurable difference in student achievement attitudes, and interactions with faculty members and other 5.2% faculty members expresss Through the use of New Technologies, users are more challenged, more engaged.
more independent and encouraged to experiment and explore the new frontiers of knowledge. Use of New Technologies had positive effects on increasing motivation and improvements in academic performance. ICT has the potential of supporting improvements in aspects such as:

- Improved writing skills (3.6%)
- The use of ICT helps facilitate communication among students, faculty members, etc. both within class and outside of class (1.9%)
- New Technologies helps users learning foreign language (4.4%)
- New Technologies changing in work patterns, a academic faculty can have an entire class work on a CAL package and yet provide very little input during the session (9.7%)
- New Technologies allows users to learn and search their need knowledge at any time and place (5.7%)
- Use ICT can help people to keep in contact with family and friends via E-mail (3.9%)
- New technologies help users (children) using word processing and graphing tools to doing their homework (3.2%)
- People with new technologies are able to express themselves creatively (13.9%)

Interpretation: according above data can say faculty members believed role important ICT are: Save time and find up to date information and explore the new frontiers of knowledge increasing motivation and explore the new frontiers of knowledge positive effects on increasing motivation and improvements in academic performance helps users learning foreign language changing in job skills to learn and search their need knowledge at any time and place helps users (children) using word processing and graphing tools to doing their homework. People with new technologies are able to express themselves creatively use of communication tools such as E-mail, fax, computer, and videoconferencing overcomes barriers of space and time, and opens new possibilities for learning are benefits of ICT.
4.73 FACULTY MEMBERS’ SUGGESTIONS

In one open question faculty members were requested to mention their suggestions and comments related to the use of ICT.

**Table 4.76  suggestions and comments by faculty members**

<table>
<thead>
<tr>
<th>suggestions and comments by faculty members</th>
<th>Number of respondents</th>
<th>percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-Access to online and offline databanks should be provided.</td>
<td>41</td>
<td>10</td>
</tr>
<tr>
<td>2-The provision of more computers with Internet facilities.</td>
<td>66</td>
<td>16.1</td>
</tr>
<tr>
<td>3- Increasing Internet access speed.</td>
<td>94</td>
<td>22.9</td>
</tr>
<tr>
<td>4- The providing more chances of training in ICT use</td>
<td>73</td>
<td>17.8</td>
</tr>
<tr>
<td>5-Classrooms should be equipped with advanced audio visual aids such as data projectors, digital overhead projectors, E-boards, digital cameras, etc.</td>
<td>54</td>
<td>13.2</td>
</tr>
<tr>
<td>6-Teaching workshops is a need.</td>
<td>25</td>
<td>6.1</td>
</tr>
<tr>
<td>7- A budget must be included for ICT so that the expenditure for acquisition is part of the institutional planning process.</td>
<td>34</td>
<td>8.3</td>
</tr>
<tr>
<td>8-Curriculum and courses content should be revised so that the institution is in a position to respond to the rapid pace of technology change.</td>
<td>23</td>
<td>5.6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>410</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

**Observation:** data shows 10% faculty members suggestions Access to online and offline databanks should be provided. 16.1% them The
provision of more computers with Internet facilities. 22.9% faculty members increasing Internet access speed 17.8% them. The providing more chances of training in ICT use 13.2% faculty suggestions. Classrooms should be equipped with advanced audio visual aids such as data projectors, digital overhead projectors, E-boards, digital cameras, 6.1% them. Teaching workshops 8.3% them suggestions. Budget for ICT so that the expenditure for acquisition is part of the institutional planning process. 5.6% them recommends that Curriculum and courses content should be revised so that the institution is in a position to respond to the rapid pace of technology change.

Interpretation: according above data faculty members suggested that speed of internet should be increased and provided more chances of training in ICT use for faculty members. The provision of more computers with Internet facilities. Classrooms equipped with advanced audio visual aids. Teaching workshops is a need. A budget must be included for ICT. Curriculum and courses content should be revised.

4.74 THE MAIN FINDINGS OF RESEARCH STUDY:

The Findings related to objectives of research study:

Statistical Findings regarding realization of objectives, research questions:

For realization of:

Main Objectives \( \rightarrow 1 \)

Research questions \( \rightarrow 1 \)

\( \triangleright \) Findings show that 97.6% of faculty members of Education departments in Iran used ICT (Table 4.10 & Figure 4.10).

For realization of:

sub Objectives \( \rightarrow 1.1 \)

Research questions \( \rightarrow 2 \& 3 \)

\( \triangleright \) Data demonstrates that unfamiliarity with ICT and lack of facilities
were the two top reasons reported by the under study faculty members for not using ICT. (Table 4.11 & Figure 4.11)

- Majority of academic members located their information in books & journals and databanks. (Table 4.9 & Figure 4.9)
- Maximum faculty members used ICT more than 5 hours daily. (Table 4.13 & Figure 4.12)
- Majority of academic members used ICT at home & office and class. (Table 4.14 & Figure 4.13)

For realization of:

sub Objective → 1.2

Research question → 5

- Data shows that faculty members used the following ICT Tools and Services

1. Computer:

In respect of computer, the study indicates that there is an increasing trend towards computer. 97.6% of Faculty members use computer facilities (Table 4.15 & Figure 4.14).

2. The Internet:

It is the most widely used network. 97% of faculty members used the Internet, (Table 4.18 & Figure 4.15).

3. Intranet:

It was found that (total 69.8%), of faculty members, used Intranet (Table 4.22).

4. Offline Databanks:

It shows that 68.8% of the under study academics used offline databanks (Table 4.23 & Figure 4.16).

5. Online Databanks:

It reveals that (total 72.9%), of faculty members used online databases. It shows that uses of online
databanks are at the satisfactory level among faculty members. (Table 4.24)

6. Multimedia:
Total 60.3% of respondents used multimedia (Table 4.25).

7. CD and DVD Technologies:
It displays that (total 88.3%) of faculty members used CD & DVD technologies (Table 4.26 & Figure 4.17).

8. Softwares Tools:
It represents that total 73.5% of faculty members used software tools. (Table 4.27)

9. Data Projectors:
The study reveals that (total 76.4%), of faculty members used data projector (Table 4.28 & Figure 4.18).

10. Digital Printers:
Data represents that total 94.9% of faculty members used digital printers, (Table 4.29)

11. Digital Scanners:
Data represents that total 91% of faculty members used digital scanners (Table 4.30 & Figure 4.19)

12. Digital Cameras:
The survey points out that (total 80.9%), of faculty teachers used digital camera (Table 4.31).

13. Electronic White boards:
It indicates that (total 66.3), of faculty members used E-boards (Table 4.32 & Figure 4.20).

14. Overhead Projectors:
The result shows that (total 81%), of faculty members used overhead (Table 4.33 & Figure 4.21).
15. Fax :
It was observed that (total 89.5%), of Education departments faculty members used fax (Table 4.34).

16. Video- VCR & VCD :
indicates that total 86.4% of faculty members used VCR(Table4.35)

17. Expert systems :
It shows that (43.2%), of faculty members used expert systems it concludes that uses of expert systems among Education departments faculty members are low. (Table 4.36 & Figure 4.22).

18. Digital TV & Radio :
Data reveals that total 78.9% of academics used digital TV & Radio (Table 4.37)

19. Mobile :
Mobiles are favorable tools for information communication. (total 94.9%), of Education university members used mobiles (Table 4.38).

INTERNET SERVICES

20. Web :
It indicates that (total 85.6)of faculty members used web. It denotes that use of web is high by faculty members and is highly favoured. (Table 4.39).

21. E-mail :
It shows that (total 95.9%) of faculty teachers used e-mail. It concludes that e-mail has become inseparable part of faculty members activities. (Table 4.40&Figure 4.23)

22. Digital Publishing :
indicates that total 65.% of faculty members used digital publishing, (Table 4.41&Figure 4.24)
23. FTP:

The study points out that (total 49%) of faculty members used FTP. It indicates that use of FTP among faculty members is low. (Table 4.42).

24. Telent:

Data shows that total 53.3% of faculty members used telnet. (Table 4.43 & Figure 4.25)

25. Search Tools:

Data shows that total 83.9% of faculty members used search tools. (Table 4.44 & Figure 4.26)

26. News Services on the Internet:

It summarizes that (total 93.8%), faculty members used guide services on the Internet. It indicates that nowadays guide services and directories are the wide used services of the Internet and it were high popular among the respondents. (Table 4.45 & Figure 4.27.)

27. Guide Services on the Internet:

It shows that (total 75.8%) of faculty teachers used news services on the Internet. It shows that more than half of the respondents used news services on the Internet. (Table 4.46)

28. Videoconference:

It was found that (total 75.9%), of Education faculty members used videoconference (Table 4.47 & Figure 4.28).

29. Discussion Groups:

It shows that (total 73.2%), of faculty members used discussion groups. It summarizes that although discussion group is not high popular among the respondents however, slowly getting momentum. (Table 4.48).

30. Newsgroups:

It indicates that (total 76.3%), of faculty
members used newsgroups. It concludes that more half of faculty members used newsgroups services. (*Table 4.49*)

31. **Online Shopping** :
illustrates that total 72% of faculty members used online shopping. (*Table 4.50 & Figure 4.29*)

32. **SMS** :
It displays that (total 87%), of faculty members used SMS on the Internet. It dictates majority of Faculty members used of SMS. (*Table 4.51*).

33. **Chat** :
The study reveals that (total 83.4%), of faculty members used chat on the Internet (*Table 4.52*).

### SEARCH ENGINES

34. **Data shows that** :
Majority (80%) of respondents used yahoo and google (*Table 4.54*)

### DATABANKS

35. **ERIC Databanks** :
Data indicates that total 66% of faculty members used Eric databanks (*Table 4.58*)

36. **Research Survey Data banks** :
Data indicates that total 71.2% of faculty members used research survey databanks (*Table 4.59*)

37. **Book Data banks** :
Data indicates that total 79% of faculty members used databanks, (*Table 4.60*)

38. **Question Databanks** : Data indicates that total 76.6% of faculty members used question databanks, (*Table 4.61*)
SOFTWARE TOOLS

39- Power Point:
Findings shows that majority (93.7%) of faculty members used Power Point. *(Table 4.62 & Figure 4.34)*

40- Word:
It displayed that total 94.8% of faculty members used Word. *(Table 4.63& Figure 4.35)*

41- Excel:
It indicates that total 81.5% of faculty members used Excel. *(Table 4.64)*

42- SPSS:
It demonstrates that total 70.7% of faculty members used SPSS. *(Table 4.65)*

43- Graphics:
It indicates that total 63.9% of faculty members used Graphic. *(Table 4.66)*

For realization of:

Sub Objective  ⇒  1.3

Research question  ⇒  4

It was observed that:

➢ Maximum(32.2%) faculty members used ICT, for *information seeking, doing research works and Teaching*. *(Table 4.12)*

➢ Maximum (23.7%) faculty members use all formats( full text, References Abstract, Multimedia, Software). *(Table 4.53 & Figure 4.30)*

➢ (40.7%) of the respondents reported Their priority is the speed of the Internet is very important. *(Table 4. 55& Figure 4.31)*

➢ More than half of Education Faculty members had academic articles/papers on the Internet. *(Table 4. 56& Figure 4.32)*
➢ 54.4% of faculty members had personal home page on the Internet.  
(Table 4. 57& Figure 4.33)

➢ Majority (82.2%) of respondents used ICT in classroom lectures, and in workshop presentation. (Table 4. 67)

➢ Majority (85.6%) of respondents used ICT in seminars, (83.4%) of them used ICT in conferences paper presentations, and 80.7% of them used ICT paper writing. (Table 4. 68)

THE PROBLEMS FACED BY FACULTY MEMBERS IN USING ICT

For realization of:

Sub Objective → 1.4

Research question → 6

Faculty members reported the following problems which faced in using ICT:
- Inadequacy of computers, printers, software, databanks, supplies.
- Inadequate education and training and experience for faculty members.
- Inadequate funding and budget to purchase new ICT facilities.
- Lack of projection systems and audio visual aids in classrooms.
- Low Internet speed.
- Inaccessibility and disconnectivity of the Internet.
- Inability to locate the network addresses.
- Lack of time, and a lack of familiarity to new Technologies.

These problems were the most important problems reported by faculty members.

For realization of:

Research question → 7 & 8

Statistical Chi-Square Test Result shows that: Significant different
is observed between the faculty members’ English level and use of Computer. Significant different is observed between the faculty members’ English level and use of Internet.

**TO SUGGEST WAYS AND MEANS TO OVERCOME PROBLEMS FACED BY FACULTY MEMBERS**

For realization of:

**Main Objective → 2**

1- Access to online and offline databanks should be provided.
2- The provision of more computers with Internet facilities.
3- Increasing Internet access speed.
4- The providing more chances of training in ICT use.
5- Classrooms should be equipped with advanced audio visual aids such as data projectors, digital overhead projectors, boards, digital cameras, etc.
6- Teaching workshops is a need
7- A budget must be included for ICT so that the expenditure for acquisition is part of the institutional planning process.
8- Curriculum and courses content should be revised so that the institution is in a position to respond to the rapid pace of technology chance.

**4.75 OTHER FINDINGS OF RESEARCH STUDY**

- **Gender:**
  
  Findings revealed that majority (64%) of faculty members of departments of Education in Iran were male. (Table 4.1 & Figure 4.1)

- **Age:**
  
  The study shows that majority (43.3%) of faculty members were in age group of 40-49 (Table 4.2 & Figure 4.2).

- **Certificate:** It was found that majority (54%) of respondents
were PhD (Table 4.3 & Figures 4.3).

- **Rank:**
  It was revealed that 46.5% (maximum) of faculty members were Lecturers, and minimum (8.6%) were Professors (Table 4.4 & Figure 4.4).

- **Experience (years):**
  It was represented that majority of (43.9%) of faculty members had "11-20" years teaching experience. (Table 4.5 & Figure 4.5)

- **Specialization:**
  Findings shows that 36.1% of faculty members have specialized in Curriculum Development (Table 4.6 & Figure 4.6).

- **English Level:**
  It indicates that less than half (46%) of the faculty members under the study were good in English. (Table 4.7 & Figure 4.7)

- **Place of Graduation (last degree):**
  It shows that 87% of faculty members got their last degree from universities of Iran, (Table 4.8 & Figure 4.8).

- 57% of respondents "always" has accessed to ICT facilities in their work place (Table 4. 72&Figure 4.39).

- 74.6% (maximum) of the respondents reported satisfaction of the ICT facilities in their departments (Table 4.73 & Figure 4.40)

- 76% of respondents took part in ICT training courses. (Table 4. 69& Figure 4.36)

- Total 42.8% of faculty members participated in computer use training course (Table 4. 70& Figure 4.37)

- Majority (27.8%) of faculty members believed that teaching how to use ICT help them to increase use of ICT. (Table 4. 71& Figure 4.38)
How ICT IS USED IN TEACHING LEARNING PROCESS

Generally data showed that full time faculty members departments of education in Iran used ICT such as Computer, internet for search new knowledge, they used word for made power point, they used power point for writing information and showed the their students faculty members used CD & DVD and Data Projector and Overhead Projectors for showe pictures and content be learners they used Printers for writing questions of examination.

Faculty members used computer: to achieve new goals in their academic job, supported by ICT. They used computer to perform teaching, clerical and administrative tasks. They used computer for instructional design, curriculum planning and utilizing software tools to design and produce multimedia lessons, tutorials and quizzes.

Faculty members used internet because: the Internet makes it possible for them that to have access to large volumes of information irrespective of their geographical location. Faculty members through access them a wide range of information, such as up-to-date research reports, from anywhere in the world, and they used these up-to-date research reports in their classroom. Intranet provides easy coordination effort among research projects and teams, free flow communication between faculty members with each other and with students.

Faculty members used multimedia for to proceed at their own pace. They used it in their presentations for their presentations were alive with sounds, movies, animation, and interactivity. This technology is as a teaching aid in education. Nowadays CDs & DVDs are the most widely used technologies for saving large amounts of data. Faculty members used CDs & DVDs for saving large amounts of data and showed in their class rooms respondents used software tool Software for made the programs that need to type, draw or surf the internet for teaching.
majority of academics used data projector. A data projector connects directly to a computer and then projects the computer screen image on to classroom board or wall. They used data projector for:

Exciting whole-class teaching using graphics, video, animation and sometimes sound. Lessons can maintain pace through a variety of media and resource. They used printer for printing exam questions, research working, writing a book, paper writing. They used Electronic White-Board for display notes and drawings in their classrooms.

Overhead projector is one of the advanced and efficient visual aids. It is one effective conveyor of ideas, feelings, etc. Faculty members used Overhead projector to clarify, establish, correlate and coordinate accurate concepts, interpretations and appreciations to enable them to make learning more concrete, effective, interesting, inspirational, meaningful and vivid.

Faculty members used Audio-visual aids for completing the triangular process of learning; viz., motivation, clarification and stimulation. They used it for clearing the channel between the learner and the things that are worth learning. To provide significant gains in informational learning, retention and recall, thinking and reasoning, activity, interest, imagination, better assimilation and personal growth.

Researchers regarding findings and role important ICT in the teaching can present recommendations to universities of that universities of Iran should have enough budgetary provision to develop ICT based services, especially for academic and research faculty members. Universities of Iran should continue its support of ICT by providing incentives for its developments in form of tax exemptions, consultancy, research and trainings, etc.

Summary of the thesis, conclusions drawn from the study and Recommendations based on research are presented in chapter V.
REFERENCE: