CHAPTER- III

METHODOLOGY

3.1 Introduction
Chapter II has dealt with the related literature available with regard to the subject of study where as this chapter deals with the Methodology followed in conducting the present study. The details have been given under captions, namely, Sample, Tool and Procedure adopted for Data Collection and Data Analysis.

3.2 Sample
The present study was conducted on 140 Universities accredited by National Assessment Accreditation Council till March 2007. It included State, Women’s, Language, Technical, Deemed, Central and Medical Universities. Out of 140 Universities, 100 are State Universities, (including Two Women’s, Two Language, and Four Technical Universities); 32 Deemed to be Universities (including One Medical, One Agriculture, One Women’s, Ten Technical, and Four Language Universities) and Eight (8) Central Universities were part of the study. There were residential as well as affiliating Universities and a majority of them were funded by the UGC, New Delhi and Ministry of Human Resource Development, Government of India. In addition to it, the sample consisted of Faculty Members and Administrators of these sample Universities. There were 715 respondents from these accredited Universities out of which 520 were the faculty members side and 195 were the administrators.
3.3 Tools

The data was collected in respect of the use of Information and Communication Technology (ICT) in different aspects of Higher Education. Along with this, the Perception toward the use of ICT in Higher Education was also assessed. The details of tools used are being given in the following captions.

3.3.1 Use of ICT in Higher Education

The use of ICT in Higher Education was assessed with the help of questionnaire developed by the investigator. The ICT can be used in different aspects of Higher Education. The questionnaire included queries related to use of ICT in students’ admissions; use of ICT for staff recruitment; use of ICT in teaching and learning; use of ICT in examinations; use of ICT in library and information services; and use of ICT in administration and finance.

The questionnaire comprised both open ended and closed type questions numbering nineteen out of which four were open ended. The questions were related to all aspects of Admission, use of ICT for staff recruitment was another aspect of higher education where ICT can be used. There were eight questions related to the Use of ICT for staff recruitment. Out of eight questions, only one question was open ended and rest were closed type questions.

With regard to the use of ICT in Teaching and Learning, there were 19 questions out of which 14 were open ended and remaining were closed type questions. The fourth aspect was the use of ICT in examinations in which 22 questions related to different aspects of use of ICT in examinations, five questions were open ended and the remaining questions were closed type.
The fifth aspect was the use of ICT in library and information services. There were 23 questions related to different aspects of use of ICT in library and information services. Out of which six questions were open ended and remaining were closed type questions. The last aspect was Use of ICT in administration and finance. There were 10 questions related to the use of ICT in administration. Of these, one question was open ended and the rest were closed type questions.

Further, there were four questions related to the use of ICT in finance out of which one was open ended and rest were closed type questions. The top page of the questionnaire contained questions related to general information about the institute. There was no time limit for filling this questionnaire. The questions were self-explanatory and no additional instructions were required by the respondents. The questionnaire is given in the Annexure –I.

### 3.3.2 Perception Towards the use of ICT in Higher Education

In this study the perception toward the use of ICT in higher education of faculty members and administrators was assessed. For this perception towards the use of ICT in higher education the investigator based on Likert method developed a scale. There were 32 statements related to different aspects of use of ICT in Higher Education. Some of the aspects were use of ICT in admission, recruitment of teaching staff, evaluation of teaching staff, instructional material, giving assignments and thought provoking questions on websites, examination of students etc. There were five choices given against each statement like: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD). The respondent was required to put tick mark only on one option amongst the given five options as his / her response. Out of 32 statements, there were 16 positive statements and the
remaining statements were negative. For positive statements the weightages for SA, A, U, D, and SD were 5, 4, 3, 2 and 1 respectively were given while it was reversed for negative statements. The Perception towards the Use of ICT in Higher Education Scale is given in Annexure - II.

Before framing the questionnaire the investigator also had one to one interaction with some of the present Vice Chancellors and also former Vice Chancellors for the opinions and views on the ICT and its implementation in Universities.

After designing the questionnaire comments / opinions were obtained regarding the structure and the contents of the questionnaire from Vice Chancellors / Professor (s) of fifteen Universities and the questionnaire was modified accordingly.

3.4 PROCEDURE FOR DATA COLLECTION

As mentioned under sample, the data was collected from 140 accredited Universities. The questionnaires on role of ICT in pursuit of academic excellence, and perception towards the use of ICT in higher education were sent to the Vice-Chancellors of accredited Universities by the Director, NAAC, Bangalore. The Vice-Chancellors in turn asked the appropriate departments / persons to respond to the Questionnaire. As the questionnaire cut-across working of all the aspects of the higher education institutions, it took time to fill in the questionnaire. The follow up action was taken by the investigator through phone and also by e-mail. Many a times there were incidents of negligent handling of the questionnaire, which resulted in the loss of the questionnaire. In such cases the questionnaire along with the scale was sent to them again with the request letter to respond at the earliest. After much persuasion and requests the data was collected. About 60.71% Universities (i.e. 85 universities) responded to the questionnaire and scale. The perception towards the use of
ICT in higher education scale was to be filled in by the faculty and administrators. It was filled by 520 Faculty Members and 195 Administrators. The scoring of the scale was done as detailed in the section ‘tools’.

3.5 DATA ANALYSIS

The data was analyzed by computing percentages. The content analysis technique was also used for analyzing the responses to the open ended questions. The t-test was used for comparing the Perception towards the Use of ICT in Higher Education of Faculty and Administrators.