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CHAPTER 2

RESEARCH METHODOLOGY

2.1 Overview

This chapter outlines the procedure involved in examining the effect of implementation of ICT in commerce and management faculties. Research design of study deals with identification of teacher's attitude towards the use of ICT in teaching while teaching in target class and students attitude towards the use of ICT in learning process while learning through ICT.

2.2 Data Required

For this study data required from various commerce colleges and management institutes. Data about infrastructure and cost required for implementation of ICT in commerce and management colleges, Data about students attitude towards the use of ICT in learning process, Data about teacher's attitude toward the use of ICT in teaching process was needed.

2.3 Data Sources

The data and information have been collected using Primary Data Sources and Secondary Data Sources.

2.3.1 Primary Data Sources

The primary data regarding institution, teachers and students have been collected through Structured Questionnaire.

2.3.2 Secondary Data Sources

The secondary data regarding the use of ICT in teaching learning process have been collected from various books, journals, newspapers and websites. This data is useful for conceptual framework.

2.3.3 Instrument

During this research data was collected from following sources:

- Questionnaire
- Field Visit
- Interview

2.3.3.1 Questionnaire

Questionnaire is a widely used and useful instrument for collecting survey information, providing structured data being able to administrate by researcher and being comparatively straightforward to analyze. Structured questionnaire was used to collect primary data. Three different questionnaires were divided into different parts.

1st Questionnaire for Institution (Directors/ principle): It contains data about infrastructure, cost, facilities provided to teachers for teaching and facilities provided to students for learning process.

2nd Questionnaire for Teachers: It conations data about training and technical supports provided by institution to the teachers, teachers opinion about the use of ICT in teaching and learning process.

3rd Questionnaire for Students: It conations data about students learning features with ICT.

2.3.3.2 Field Visit

Field visit was used to collect the evidence of ICT usage and infrastructure available in the ICT classrooms.

2.3.3.2 Interview

The interview involves the gathering of data through direct verbal communication between participants. In this sense it differs from the questionnaire where the respondent records their responses to set questions. The interview was based on questions asked in the questionnaire. It gave them an opportunity to respondents to elaborate more fully on the reasoning behind their answers. For this survey researcher use open-ended interview. Directors/Principles of some institute has given time to me for open discussion, this

discussion was based on questionnaire. With the help of interview technique researcher reduce the bias and increase the reliability of the collected data.

2.3.4 Variables Used

For this study data about institutions were collected from directors/Principles of the selected institution; the questionnaire which was created for this purpose contain total 40 questions which were divided in six parts.

Part-I consists of profile of the institution. It contains Name, Address, Contact information, available courses, number of teachers and student etc.

Part-II contain questions about availability of infrastructure and facilities.

Part-III and Part-IV contain information regarding the cost which is required for ICT infrastructure implementation, maintenance. Out of 5 colleges only one college provide cost related information without any hesitation. Other than that any single colleges didn't provide correct information about cost.

Part-V consists of opinion about effect of ICT implementation on institute management.

Part-VI consist of some questions regarding to opinion about ICT on societal aspect

Data about teacher's attitude towards the use of ICT in teaching practices was collected by different parts

Part-I consists of teacher's background information It contains Name, Age, Qualification, Teaching experience, Whether they have PC /laptop at home, Whether they use internet for collection teaching material and for creating their own digital lessons etc.

Part-II consists of questions about ICT training provided by institution.

Part-III consist of questions regarding technical support provided for lesson preparation and lesson delivery in teaching process to the teachers and for learning process to the students.

Part-IV consists of teacher's opinion about use of ICT in teaching process. A 5 point likert scale questionnaire consists of eight statements based upon teaching features with and without ICT when teaching the target class.

Part-V consists of teacher's opinion about effect of ICT on students learning.

Part-VI consists of teacher's opinion about effect of ICT implementation on institute management.

Part-VII consist of some questions regarding to opinion of teachers about ICT on societal aspect

Data about student's attitude towards the use of ICT in learning process is collected by 21 questions which were divided in two parts

Part-I consists of student background information e.g. Name, Age, Class, whether they have PC or laptop at home, whether they use internet for learning etc.

Part-II consists of student opinion about the use of ICT in learning.

2.3.5 Sampling

Population for the study is finite. Simple random sampling technique has been used to select the sample of the population. Sample is selected from the following Commerce colleges and Management institutions. There are 5 Management institutes and 3 Commerce colleges in sangli city. For investigation researcher were selected only 3 management institutes and 2 commerce colleges as shown in Table 2.3.5.1

2.3.5.1 Sampling Unit

A sample of 5 institutions Director/Principles was interviewed. The sample of teachers who teach to under graduate and post graduate classes were involved in the study and also student of the selected institutions is also a participant of this study.

Sr.No	Name of Colleges/ Management institutions.	No. of Students (Only UG and PG students)	No. of Teachers
1	College A	377	06
2	College B	1350	15
3	College C	1100	28
4	College D	980	12
5	College E	32	06
	Total	3807	67

Source: (Field Data)

Table 2.3.5.1

From various under graduate and post graduate courses of above institution, researcher was used 300 students as samples out of 3807 population size of students, 28 samples as teacher participants out of 67 population size of teachers and 5 Director/Principal from all institutions.

2.4 Data Analysis

Data is classified and presented in tables. Analysis is done by using Mean, Weighted Average, Rank and Percentages. Pearson Correlation Coefficient is used to analyze relationship between variables. Hypotheses are tested using Pearson Correlation Coefficient and t - test. Data is processed and analyzed using MS-Excel software.