

# **CHAPTER-V**

**FINDINGS, DISCUSSIONS,  
SUMMARY, CONCLUSION  
AND IMPLICATIONS**

## CHAPTER-V

### FINDINGS, DISCUSSIONS, SUMMARY AND CONCLUSION

#### 5.0.0 INTRODUCTION

Introduction and the review of researches are presented in chapter 1 and chapter 2 respectively. The methodology employed for the study along with the technique of sample selection, tools, procedure of data collection and the statistical technique for the analysis of the data are presented in the chapter 3. The result and interpretation are presented in the chapter 4. In the present chapter summary and conclusion are presented in the following captions.

#### 5.1.0 FINDINGS

The present study was planned to investigate the knowledge of ICT among prospective teachers: in this chapter discussion of the findings is presented on the basis of the interpretation of the data. The followings flow from the interpretation of the data presented in the previous chapter:

1. The knowledge of ICT among prospective teachers is not satisfactory.
2. There was no significant influence of gender on knowledge of ICT.
3. There was no significant influence of types of institution on knowledge of ICT.
4. There was no significant interaction of gender and types of institution on knowledge of ICT.
5. There was no significant influence attitude towards ICT on knowledge of ICT.
6. There was no significant interaction of gender and attitude towards ICT on knowledge of ICT.
7. There was no significant influence of learning style on knowledge of ICT.
8. There was no significant interaction of gender and learning style on knowledge of ICT.
9. There was no significant influence of teaching aptitude on knowledge of ICT.

10. There was no significant interaction of teaching aptitude and attitude towards ICT on knowledge of ICT.
11. There was no significant interaction of teaching aptitude and learning style on knowledge of ICT.
12. There was no significant interaction of teaching aptitude and types of institution on knowledge of ICT

## **5.2.0 KNOWLEDGE OF ICT AMONG PROSPECTIVE TEACHERS**

The first objective was to study the knowledge of ICT among prospective teachers. The college administration has to be very serious about ICT integration in the B.Ed. trainee courses. This result may be because of the old traditional method of teaching in the institutions.

### **5.3.0 INFLUENCE OF GENDER, TYPE OF INSTITUTION AND THEIR INTERACTION INFLUENCE ON KNOWLEDGE OF ICT**

Second objective of the study was to study the influence and interaction of gender and type of institution on prospective teachers. This has been discussed in the caption 5.3.1, 5.3.2 and 5.3.3.

#### **5.3.1 Influence of Gender on Knowledge of ICT**

Gender did not influence significantly the knowledge of ICT among prospective teachers. In other words, boys and girls students did not differ significantly to the knowledge of ICT. This finding is supported by Gulhane whose findings revealed no significant differences between the awareness regarding ICT of boys and girls teacher trainees. At present, steps are taken in various ways to promote the feeling of equality among boys and girls. Parents are also, now almost equally and increasingly investing time, energy and money to the both girls and boys. This change in educational climate particularly, in the attitudes of the parents and the teachers might be the cause of lack of the gender differences in the knowledge of ICT

#### **5.3.2 Influence of Types of Institution on the Knowledge of ICT**

Types of institution significantly affected the knowledge of ICT among prospective teachers. In other words prospective teachers of RIE and PGBT differ significantly in their knowledge of ICT. This finding is supported by Chai, Hong & Teo whose study suggested that further effort needs to be taken in order to foster more productive use of ICT to support constructivism oriented teaching. Most of the prospective teachers of RIE were having more



knowledge of ICT than those of PGBT. It may be because of the syllabus and also of the facilities like Wi-Fi. One more reason may be that the students in RIE are freshers whereas those of the PGBT are in-service and aged.

### **5.3.3 Influence of Interaction between Gender and Types of Institution**

The influence of interaction between gender and type of institution on knowledge of ICT was found significant. The result indicates that boys and girls prospective teachers of RIE & PGBT differ significantly in terms of knowledge of ICT. Girls of the RIE were having more knowledge of ICT than boys of the RIE as well as the boys and girls of PGBT. Boys of PGBT were having more knowledge than girls. It might be because girls of RIE are from urban area whereas boys are from rural area.

### **5.4.0 The Influence of Gender, Attitude towards ICT and their Interaction on Knowledge of ICT among Prospective Teachers**

Third objective of the study was to study the influence of gender, attitude towards ICT and their interaction on knowledge of ICT among prospective teachers. This has been discussed in the caption 5.4.1, 5.4.2 and 5.4.3.

#### **5.4.1 Influence of Gender on Knowledge of ICT**

It is already discussed under caption 5.3.1.

#### **5.4.2 Influence of Attitude towards ICT on Knowledge of ICT**

Attitude towards ICT did not produce significant influence on knowledge of ICT. It may be because knowledge of something depends on how much an individual explore his/her in a particular area. Those who have positive attitude but didn't get opportunity to explore then there will be no question of the knowledge. In the present study most of the prospective teachers didn't get opportunity to explore and because of that they didn't have adequate knowledge of ICT.

#### **5.4.3 Influence of Interaction of Gender and Attitude towards ICT on Knowledge of ICT**

The influence of interaction between gender and attitude towards ICT was not found significant. The result indicates that knowledge of ICT is independent of the interaction of gender and attitude towards ICT. This study is supported by Elsaadani (2012) & Cavas, Cavas, Karaoglan & Kislal (2009). Their study revealed that boys or girls is not a significant factor when considering attitude

towards ICT. It may be because attitude is the result of experience and exposure, it is independent of gender.

#### **5.5.0 INFLUENCE OF GENDER, LEARNING STYLE AND THEIR INTERACTION ON KNOWLEDGE OF ICT**

Fourth objective of the study was to study the influence of gender, learning style and their interaction on knowledge of ICT among prospective teachers. This has been discussed in the caption 5.5.1, 5.5.2 and 5.5.3.

##### **5.5.1 Influence of Gender on Knowledge of ICT**

It is discussed already under caption 5.3.1.

##### **5.5.2 Influence of Learning Style on Knowledge of ICT**

Learning style did not produce significant influence on knowledge of ICT. It may be because each learning style (L & R) needs different teaching method. But in a class it is very difficult to teach different method for different learning style.

##### **5.5.3 Interaction of Gender and Learning Style on Knowledge of ICT**

Interaction of gender and learning style did not have significant influence on knowledge of ICT. It may be because learning style is the factor of hemisphere in the brain and not of the gender. Because of this knowledge of ICT is independent of the interaction of gender and learning style.

#### **5.6.0 INFLUENCE OF ATTITUDE TOWARDS ICT, TEACHING APTITUDE AND THEIR INTERACTION ON KNOWLEDGE OF ICT**

Third objective of the study was to study the influence of teaching aptitude, attitude towards ICT and their interaction on knowledge of ICT among prospective teachers. This has been discussed in the caption 5.6.1, 5.6.2 and 5.6.3.

##### **5.6.1 Influence of Attitude towards ICT on Knowledge of ICT**

It is already discussed under caption 5.4.2

##### **5.6.2 Influence of Teaching Aptitude ICT on Knowledge of ICT**

Influence of teaching aptitude on knowledge of ICT found insignificant. It may be because most of the prospective teachers are taught by traditional method of teaching. Therefore, they don't want to rely on ICT for teaching and because of that they have teaching aptitude but not have significant influence on knowledge of ICT.

### **5.6.3 Interaction of Attitude towards ICT and Teaching Aptitude on Knowledge of ICT**

Interaction of attitude towards ICT and teaching aptitude on knowledge of ICT was not found significant. Result indicates that students having high attitude towards ICT have low teaching aptitude and vice-versa. It may be because high teaching aptitude make them comfortable with traditional method. In PGBT College most of the prospective teachers are old and they have never use ICT in their teaching therefore, they have teaching aptitude but low attitude towards ICT.

### **5.7.0 INFLUENCE OF LEARNING STYLE, TEACHING APTITUDE AND THEIR INTERACTION ON KNOWLEDGE OF ICT**

Sixth objective of the study was to study the influence of learning style, teaching aptitude and their interaction on knowledge of ICT among prospective teachers. This has been discussed in the caption 5.7.1, 5.7.2 and 5.7.3.

#### **5.7.1 Influence of Teaching Aptitude on Knowledge of ICT**

It is already discussed under caption 5.6.2

#### **5.7.2 Influence of Learning Style on Knowledge of ICT**

It is already discussed under caption 5.5.2

#### **5.7.3 Interaction of Learning Style and Teaching Aptitude on Knowledge of ICT**

Interaction of teaching aptitude and learning style was not found significant. There exist interaction but this interaction is not significant. Persons with right hemisphere and high teaching aptitude have knowledge of ICT and vice-versa.

### **5.8.0 INFLUENCE OF TEACHING APTITUDE, TYPE OF INSTITUTION AND THEIR INTERACTION ON KNOWLEDGE OF ICT**

Seventh objective of the study was to study the influence of teaching aptitude, type of institution and their interaction on knowledge of ICT among prospective teachers. This has been discussed in the caption 5.8.1, 5.8.2 and 5.8.3.

#### **5.8.1 Influence of Teaching Aptitude on Knowledge of ICT**

It is already discussed under caption 5.6.2.

#### **5.8.2 Influence of Type of Institution on Knowledge of ICT**

It is already discussed under caption 5.3.2.

#### **5.8.3 Interaction of Teaching Aptitude and Type of Institution on Knowledge of ICT**

Interaction of teaching aptitude and type of institution on knowledge of ICT was not found significant. It indicates that type of institution having significant influence on knowledge of ICT. It is already discussed that prospective teachers of RIE having higher knowledge of ICT than PGBT.

### 5.9.0 SUMMARY

Summary of the present study is presented in the following captions:

#### 5.9.1 RATIONALE OF THE STUDY

The main function of the educational research is to improve the educational procedure, existing process of teaching and system through the refinement and extension of knowledge. This study intends to determine the knowledge of ICT among the prospective teachers with respect to other variables (gender, attitude towards ICT, teaching aptitude, learning style and type of institution).

The use of ICT is very important topic in education. ICT can enhance teaching and learning outcomes. For, example; in science and mathematics education; scholars have documented that the use of ICT can improve students' conceptual understanding, problem solving, and team working skills; As a result, curriculum documents state the importance of ICT and encourage school teachers to use it. However, teachers need to be specifically trained in order to integrate the ICT in their teaching.

Since, the curriculum documents provide arguments for introducing ICT in the school setting, schools expects that graduates from teacher education programs have a reasonable knowledge of How to use ICT in their teaching learning process

#### 5.9.2 STATEMENT OF THE PROBLEM

The problem of the proposed study may be worded as follows:

*“Study of knowledge of ICT among prospective teachers of Madhya Pradesh”.*

#### 5.9.3 DEFINING KEY TERM

Prospective teachers

Attitude towards ICT

Teaching aptitude

Learning style

Knowledge of ICT

#### 5.9.4 OBJECTIVES OF THE STUDY

Following objectives are formulated for the proposed study:

1. To study the knowledge of ICT among prospective teachers.
2. To study the influence of gender, types of institution and their interaction on knowledge of ICT of prospective teachers by taking their scores of intelligence as covariate.
3. To study the influence of gender, attitude towards ICT and their interaction on knowledge of ICT of prospective teachers by taking their scores of intelligence as covariate.
4. To study the influence of gender, learning style and their interaction on knowledge of ICT of prospective teachers by taking their scores of intelligence as covariate.
5. To study the influence of teaching aptitude, attitude towards ICT and their interaction on knowledge of ICT of prospective teachers by taking their scores of intelligence as covariate.
6. To study the influence of teaching aptitude, learning style and their interaction on knowledge of ICT of prospective teachers by taking their scores of intelligence as covariate.
7. To study the influence of teaching aptitude, types of institution and their interaction on knowledge of ICT of prospective teachers by taking their scores of intelligence as covariate.

#### 5.9.5 HYPOTHESES

Following hypotheses may be formulated for the proposed study:

1. There is no significant influence of gender on knowledge of ICT of prospective teachers by when their scores of intelligence are taken as covariate.
2. There is no significant influence of types of institution on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
3. There is no significant interaction of gender and types of institution on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.



4. There is no significant influence of attitude towards ICT on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
5. There is no significant influence of gender on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
6. There is no significant interaction of gender and attitude towards ICT on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
7. There is no significant influence of learning style on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
8. There is no significant influence of gender on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
9. There is no significant interaction of gender and learning style on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
10. There is no significant influence of teaching aptitude on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
11. There is no significant influence of attitude towards ICT on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
12. There is no significant interaction of teaching aptitude and attitude towards ICT on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
13. There is no significant influence of teaching aptitude on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
14. There is no significant influence of learning style on knowledge of ICT of prospective when their scores of intelligence are taken as covariate.
15. There is no significant interaction of teaching aptitude and learning style on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.

16. There is no significant influence of teaching aptitude on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
17. There is no significant influence of type of institution on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.
18. There is no significant interaction of teaching aptitude and types of institution on knowledge of ICT of prospective teachers when their scores of intelligence are taken as covariate.

### **5.9.6 METHODOLOGY**

In this study, descriptive survey method was employed.

### **5.9.7 SAMPLE**

140 prospective teachers of RIE, Bhopal and PGBT, Bhopal was taken as sample, irrespective of demographic characteristics.

### **5.9.8 TOOLS**

For the proposed study following tools will be used:

- Teaching aptitude test
- Intelligence test
- Attitude scale
- Style of learning and thinking
- Test for the knowledge of ICT

### **5.9.9 DATA GATHERING PROCEDURE**

- (a) The researcher visited PGBT, Bhopal and RIE, Bhopal in order to obtain the required data.
- (b) In both the colleges an interaction through questionnaire was carried out to procure the required data from the prospective teachers.

### **5.9.10 STATISTICAL TECHNIQUE USED**

For the present study descriptive statistics (mean, percentile, SD, variance) and ANCOVA was used for analysing the data.

### **5.9.11 FINDINGS**

1. The knowledge of ICT among prospective teachers is not satisfactory.
2. There was no significant influence of gender on knowledge of ICT.

3. There was no significant influence of types of institution on knowledge of ICT.
4. There was no significant interaction of gender and types of institution on knowledge of ICT.
5. There was no significant influence attitude towards ICT on knowledge of ICT.
6. There was no significant interaction of gender and attitude towards ICT on knowledge of ICT.
7. There was no significant influence of learning style on knowledge of ICT.
8. There was no significant interaction of gender and learning style on knowledge of ICT.
9. There was no significant influence of teaching aptitude on knowledge of ICT.
10. There was no significant interaction of teaching aptitude and attitude towards ICT on knowledge of ICT.
11. There was no significant interaction of teaching aptitude and learning style on knowledge of ICT.
12. There was no significant interaction of teaching aptitude and types of institution on knowledge of ICT

#### **5.9.12 DELIMITATIONS OF THE STUDY**

The proposed study will be conducted under following constraints:

1. This study is delimited to the colleges of Bhopal city.
2. This study is limited to RIE, Bhopal and PGBT of Bhopal.
3. This study is limited to the institutions offering teaching courses at B.Ed. level.
4. This study is delimited to the final year students in case of 4-year integrated courses and two year integrated course run by RIE, Bhopal.

#### **5.9.13 EDUCATIONAL IMPLICATIONS**

- Since development and maintenance of attitude towards ICT are essential elements for better achievement in knowledge of ICT, the negative attitude towards ICT might lead to low achievement. So, it is important that attitudes of prospective teachers towards ICT have to be influenced positively.

- In teacher education institutions, syllabi followed shows less weightage to ICT as far as content and marks are considered. This aspect should be considered while redesigning the curriculum.
- Teacher educator need to incorporate technology into their lesson plans in addition to teaching prospective teachers.
- Use of ICT is very important in teaching to make teaching more influencive and interesting.
- Teachers also need to recognise their own learning style as a basis for the development of influencive teaching and learning strategies.

#### 5.9.14 CONCLUSION

The present study was conducted over the prospective teachers of Bhopal. Findings of the study suggested that the prospective teachers are not competent enough to use ICT for the teaching purpose but, our society demands it. Teachers having high teaching aptitude but, they did not have the knowledge of ICT as well as the positive attitude towards ICT. Therefore, steps should be taken to make them ICT-friendly.

#### 5.9.15 SUGGESTIONS FOR THE FURTHER STUDY

Here, the results of the present study bring out certain points for further study which are as follows:

- To replicate the present study similar study can conduct over a larger population of teachers and teachers in other city or other states.
- Replication may be done with different samples.
- The current level of ICT integration at B.Ed. level can also be studied.
- Study could be extended by taking variables like teaching effectiveness and teaching interest.
- The influence of knowledge of ICT on teaching aptitude can also be study.
- Similar study can also be done with the different types of courses.
- The influence of learning style on teaching aptitude can also be study.
- The influence of types of institution on teaching effectiveness can be study.

