Chapter I

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Chapter I

INTRODUCTION

1.1 BACKGROUND OF THE STUDY

Information technology has been transforming education lending a new dimension to the learning process and expanding the frontiers in ways that were unimaginable a decade or two ago. Consider the rise of e-learning and the ways in which computers, multimedia technology and internet have been used to vastly improve the quality and reach of learning. The modern trend in education is to individualize instruction at all levels and thus everyone can take maximum profit from the planned educational programme and develop their potential to the maximum.

The potential of educational technology, individualized instruction and learning strategies can make education more productive, more individualised and more powerful to achieve excellence in education.

With the advent of satellite technology and computers, many programmes are imparted using electronic media and the electronic media play the key role in transmitting information. The conventional methodology was
based on concept of classroom as the ultimate place of knowledge receiving, where teacher plays the role of source and transmitter of information and knowledge and learners play the role of receivers. Thus there is a paradigm shift in education where teacher plays role of information producer and curriculum adviser and students act as information accumulator and knowledge acquirers.

1.1.1 Importance of Individualized Instruction

Individualized instruction is those forms of teaching in which instruction takes place on an individual rather than group basis. It recognizes and provides for the unique manner in which each individual learns.

Psychology reveals that no two individuals are alike. A class is a cluster of students of different capabilities, interest, aptitudes and of course from varying background. There are fast learners as well as slow learners. Some can read and learn for hours together, while other get easily fed up and frustrated quickly. All these are due to the social and cultural background and psychological factors. Their cognitive and psychomotor skills too vary. So individualized instruction can be of great help to meet these needs of the students.

The individualized instruction helps a student to learn at his own pace, his own rate and in his own style i.e. to fit the square pegs in square holes and round pegs in round holes. Thus slow, medium and gifted students can be placed on different but suitable programmes based on their unique needs and abilities.
Modern educationists are externally on the look out for innovative time saving and effective methods. As the number of pupils are large, it is not practicable to prepare materials to suit everyone’s need. Recently there is a trend of a unified pattern of educational system throughout the country. But it will adversely affects the academically backward ones. This difficulty can be reduced to a certain extent by developing individualised instructional strategies.

With the introduction of electronic medias and information and communication technologies in education, great changes have taken place in the process of teaching, learning and training of teachers. To raise the academic performance and to suit the individual differences of the students in teaching learning situations, more emphasis is now laid on new practices and thus various innovative individualized strategies have been evolved.

1.1.2 Self-learning materials

In the words of Straser (1964) an instructional strategy is a purposefully conceived and determined plan of action, which serves to attain certain outcomes and to guard against others. Self-learning strategy is a generalised plan for a lesson which includes structure and desired learner behaviour in terms of the goals of instruction and an outline of tactics necessary to implement the strategy.

Self-learning materials are those forms of learning materials by which an individual learns of his own in a unique way. Compared to the group based
approaches, this approach is more flexible as it gives ample freedom to individual student to learn of his own.

In India there are various centres in universities and other centres of educational research and training (NCERT) that develop suitable self-learning materials in various subjects at different levels of instruction and learning.

1.2 NEED AND SIGNIFICANCE OF THE STUDY

In recent years educational methods and instrumentations are changing with a rapid speed to keep in pace with rapid technological advances. New devices like computer assisted instruction, educational television, individualized learning programmes and many more new practices are designed to put into operations. New knowledge about learning process tend to stress individualized learning. Many educational planners agree with the opinion that use of self-instructional materials would surely help to improve education quantitatively as well as qualitatively. Thus different methods of individualized instruction and different forms of self-learning materials were evolved. 

In this modern technological age there should be a continuous effort on the part of every practicing teacher to carry out self-study on one’s own professional need, interest and teaching responsibilities. A successful and dynamic teacher continues to remain self-initiated and self-directed learner throughout his / her carrier. It is this self-directed and life long learning that supplement and complement the professional education of teachers in modern times.
The effective use of self-learning materials, devices and equipments related to self-learning is meaningless if teachers and student teachers are not aware of these. Even the use of self-learning materials is out of question unless the teachers and student teachers are having favourable opinion towards these.

As a teacher of college of education for so many years, the investigator has clearcut experience regarding the use of modern instructional strategies in Teacher Education Programme. Also she is under the impression that the use of self-learning materials will help the learners to achieve more in their academic pursuits. Several studies conducted so far focussed on finding out the effectiveness of innovative learning strategies, but proper attention has not been given to self-learning materials especially in the field of Teacher Education. So the investigator felt a need to study the perception of student teachers in using self-learning materials and their performance with respect to the use of self-learning materials and thus the investigator selected a topic to understand the perception and performance of student teachers regarding the use of self-learning materials. Hence the importance of the study.

1.3 STATEMENT OF THE PROBLEM

The problem under investigation is entitled as “USE OF SELF LEARNING MATERIALS: PERCEPTION AND PERFORMANCE OF STUDENT TEACHERS AT SECONDARY LEVEL.”
1.4 **EXPLANATION OF KEY TERMS:**

**Self-learning materials**

Self-learning material or individualized learning material is tailored to the needs of individual students and situations characterised by such features as clear objectives or outcomes, specification; detailed repertoire assessment of the student; active responding or frequent monitoring of student responses, immediate and frequent feedback; use of successive approximations; self-paced learning, mastery learning..... (International Dictionary of Education - 2002)

**Perception**

Perception is a belief or opinion that one has as a result of experience or noticing something special. It is a process by which an individual makes sense of his/her experience and also awareness through senses. One may come across a person with extra ordinary perception or insight (Good 1957).

**Performance**

According to ‘Advanced Learners’ Dictionary ‘ (2000) performance is an act or process of performing a task. In the present study the term performance refers to the academic achievement as measured by the gain scores obtained from the scores of pre-test and post-test.
Student teachers at secondary level

Student teachers at secondary level means students who are undergoing a course in education to become teachers at secondary level. Here the students studying for B.Ed. Degree course in Training Colleges or Colleges of Teacher Education are referred to as student teachers.

1.5 OBJECTIVES OF THE STUDY

The objectives of the present study are,

1. To understand the various self-learning materials already included in the existing B.Ed. curriculum.
2. To study the awareness of secondary level student teachers regarding the use of self-learning materials.
3. To analyse the opinion of secondary level student teachers towards the use of self-learning materials.
4. To assess the facilities available, extent of use of facilities and training provided in teacher education institutions with regard to self-learning materials.
5. To understand the difficulties faced and the suggestions made by student teachers for the effective utilization of self-learning materials and devices.
6. To prepare self-learning materials for the use of student teachers at secondary level.
7. To compare the performance of secondary level student teachers who followed the prepared self-learning materials and conventional lecture method of teaching.
8. To compare the performance of those secondary level student teachers who followed each of the prepared self-learning materials such as computer assisted instructional material, instructional modules and multimedia package.

1.6 HYPOTHESES OF THE STUDY

The hypotheses formulated for the present study are the following:

1. The secondary level student teachers do not have adequate awareness on self-learning materials.

2. The secondary level student teachers are in favour of using self-learning materials.

3. The teacher education institutions do not have sufficient facilities, devices and equipments for the use of self-learning materials.

4. The training provided by teacher training institutions in preparing and using self-learning materials is not adequate.

5. The performance of student teachers who used self-learning materials will be much better than the performance of student teachers who followed conventional lecture method of teaching.

6. There is no significant difference in the performance of student teachers who used self-learning materials like computer assisted instruction, instructional modules and multimedia package.
1.7 METHODOLOGY IN BRIEF

Survey and experimental methods are adopted for the present study. To know more about the perception of student teachers regarding the use of self-learning materials, the various dimensions included in the present study are as follows:


2. Opinion towards the use of self-learning materials.

3. The availability, extent of use, training provided in preparing and using self-learning materials, problems faced in using self-learning materials and suggestions proposed by student teachers for the effective use of self-learning materials.

The performance of student teachers in using self-learning materials was found out by using an experimental approach and the design used was pre-test, post-test parallel group design.

The major tools and techniques adopted for collection of data are:

1. Content Analysis

2. Awareness test

3. Opinionnaire

4. Questionnaire

5. Prepared self-learning materials such as,
   a) Computer assisted instructional material
   b) Instructional module
   c) Multimedia package

6. Achievement test
The sample for the survey comprises 1200 student teachers belonging to Aided, Unaided and University Colleges of teacher education under Mahatama Gandhi University (four districts) and random sampling technique was adopted.

For the experimental study 160 student teachers belonging to 5 optional subjects were selected from St. Joseph Training College, Ernakulam. The instructional strategy ie. the self-learning materials and conventional lecture method was the independent variable and achievement was the dependent variable. The self-learning materials were prepared by the investigator and sample try out was conducted. An achievement test based on the B.Ed. Syllabus was constructed and used for collecting data on achievement.

The data collected through survey and experiment were analysed using appropriate statistical techniques. The major statistical techniques used are paired ‘t’ test, ‘F’ test, and ‘ANCOVA’

1.8 SCOPE OF THE STUDY

The present study aims to assess the perception and performance of secondary level student teachers in using self-learning materials.

The investigator hopes that the study will promote the utilization of devices, equipments and facilities associated with individualized instruction. Thereby the teacher educators and student teachers will obtain adequate technomanagerial and financial support along with training.
As far as B.Ed curriculum is concerned we are lacking sufficient self-
learning materials. The investigator made an attempt to solve the problem to
some extent by preparing certain materials for self-study. The prepared self-
learning packages can be used effectively by student teachers and these materials
may motivate teacher educators and student teachers to prepare more packages
for their own teaching and learning purposes.

The prepared self-learning materials can be utilized for open learning,
distance education and in-service training programmes and thus it may cultivate
an attitude of independent study. The investigator hopes that the study would
be helpful to improve the curriculum transaction and thereby to improve the
quality of education.

1.9 LIMITATIONS OF THE STUDY

The investigator has made every attempt to make the study a perfect one. But the constraints of time and resources reduced the size of the sample
and variables selected for the study. The study is confined to a sample from
four districts only. It would have been better if a larger sample consisting all
over the state could have been plucked up.

Self-learning materials were prepared only on three strategies and used for the present study. Other strategies are not attempted due to lack of
time.
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Despite the above mentioned facts, all possible attempts have been made to make the study a reliable and objective as possible. It is hoped that the results of the present study would be helpful in finding new frontiers in the field of Education.

1.10 ORGANIZATION OF THE REPORT

The report has been presented in six chapters. Chapter I presents as rationale for selecting the present problem, its significance, definition of the key terms used, statement of the objectives, hypotheses, methodology in brief, scope and limitations of the study.

The second chapter presents a detailed description or content overview of various self-learning materials and strategies.

The third chapter presents a detailed review of selected literature from areas of individualized learning strategies and self-learning materials.

Chapter four of the report describes the methodology. Under this chapter, the details relating to the method adopted, tools used, sample for the study, statistical techniques adopted etc. are given.

The analysis of the data taken up for the study and its interpretation are detailed in the fifth chapter.

The last chapter presents a short overlook of the study, major findings, suggestions and suggestions for further research in the area.