CHAPTER

V

SUMMARY, FINDINGS
AND CONCLUSIONS
5.1. Summary of the study

Inclusive education in the education system of the world is the key word in the 21st century. Considering the varied ability of students learning in any classroom of the world is a character of a classroom. How the learning in the classroom of varied ability students will be successful and effective is a challenge before today’s education system.

By producing excellent curricula and preparing quality teachers through teacher education institutions is the perfect solution for the successful inclusive education.

Keeping the above expectations to realize the researcher conducted a study ‘Attitude, self-efficacy and skills of Pre service teachers towards inclusive education.’ with objectives to analyze Teacher Education curriculum concerned with Inclusive education, to assess pre-service teacher’s attitude, self-efficacy, and skills towards Inclusive education, to Develop Inclusive Education curriculum framework for Teacher Education and formulate syllabus for pre-service teachers, to compare the effect of imparted syllabus in Isolated, Infused and Isolated without training mode on attitude, self-efficacy, skills. To study above objectives researcher employed methodology as follows:

Method: - The present work was carried out by applying multi method i.e. Survey, Experimental Method, Document Analysis, Product Development. (A. Preparation of Inclusive Education curriculum framework for Teacher Education and formulate inclusive education syllabus for pre-service teachers B. Preparation of Teaching learning Material of Inclusive Education syllabus.) Objective wise use of Methods: For 1st objective studied with status paradigm and Document Analysis method was used. For 2nd objective studied with status paradigm and Survey Method was used. For 3rd objective Product Development method was used. For 4th objective studied with cause and effect paradigm and quasi experimental design was used.

Population: Pre-service teacher’s from all teacher education Institutions affiliated to Savitribai Phule Pune University, Pune (2014-15) Sample: Selection of B.Ed.
Colleges & Selection of Pre-Service Teacher’s: For Survey: 20% colleges of education from S.P. Pune University and 100% students of the same colleges were included in the survey by using incidental Random sampling. For Experimental: For this study three colleges of education was selected by using purposive random sampling technique.

Selecting informants and subjects for the study as follows:

For objective-1 to analyze the previous curriculum (B.Ed. syllabus revised from 2008-Savitribai Phule Pune University Pune). For this document analysis method was used. Researcher prepared general and final data sheets based on objectives, units, topics/content directly related (D.R.), indirectly related (I.R.) and not related (N.R.) to inclusive education. For objective-2 Survey method was used. To know the status of 3 variables which gives the picture of pre-service teachers capabilities to perform as inclusive education teachers. Survey conducted on 20 colleges of education affiliated to Savitribai Phule Pune University Pune. 1200 Pre-service teachers responded in survey. For objective-3 Researcher considering the curriculum analysis and status of capabilities of the pre-service teacher. Capabilities and reviews related to inclusive education literature and research reports researcher prepared inclusive education curriculum framework for teacher education and formulate syllabus (Isolated syllabus and Infused syllabus) for pre-service teachers and further verified and validated syllabus from the experts. For objective-4 Researcher conducted experimental study to inquire the impact of Isolated syllabus + training + Provided Teaching learning material in H.G.M. Azam college of education (Mode-I), Infused syllabus + Training + Provided Teaching learning material in Adarsh Comprehensive college of education and research (Mode-II), Isolated syllabus + without training + Not Provided Teaching learning material in M.I.T. college of education (Mode-III).

The finding of the above study ate as follows:

1. Two courses from B.Ed. syllabus (Revised from 2008-2013) namely ‘psychology of development and Learning’ and ‘Introduction to Guidance and Counseling’ in school are carried out the topics directly related to Inclusive education.

2. Pre service teacher’s attitude, self-efficacy and skills toward inclusive education are almost same according to gender (male and female), age variations (from below 25 to above 40) and qualifications (graduate and post graduate). So while imparting instruction according to isolated, infused, and isolated without training and not providing teaching learning material used not need to segregate.
3. Pre-service teacher’s Capabilities Combined (Attitude, self-efficacy and Skills) to perform inclusive education practices changes positively by imparting instruction through isolated syllabus and infused syllabus along with providing training and teaching learning material.

4. Pre-service teacher’s capabilities to perform inclusive practices are more effective in isolated syllabus than infused syllabus. Both syllabus imparted with training to teacher educators and providing teaching learning material.

5.2. Introduction

Professional Success

Professional success of every professional in his profession depends mainly on his/her up-date professional knowledge, fullest devotion & dedication along with his/her efficiency & effectiveness. For efficiency & effectiveness training is necessary. If a person is trained before being employed in a job this is called pre-training. By having some pre-training him will get success & full satisfaction in his/her job?

Pre-Service Teacher Education

Training is defined as a “systematic development of attitude, knowledge, skill & behavior patterns required by an individual in order to perform adequately a given job or task. A teacher must have knowledge of his/her subject, methods & techniques of teaching which affect his/her teaching. Planning commission projects, stated in their draft report-“Modern education aims at education of the whole person. So every teacher should have a deep knowledge & understanding of children & a skill for applying that knowledge & understanding”.

Inclusive education: Inclusion is about school change to improve the educational system for all students. It means changes in curriculum, changes in how teachers teach & how students learns, as well as changes in how students with & without special needs interact with & relate to one another. Inclusive education is a process of enabling all students, including previously excluded groups, to learn & participate effectively within mainstream school systems.

Inclusion: Inclusion in education is an approach to educating students with special educational needs. Under the inclusion model students with special needs spend most or all of their time with non-disabled students. Implementation of these practices varies. Schools most frequently use them for selected students with mild to severe
special needs. Inclusion can be defined and evaluated at the level of principles, place, purpose, practice & person.

### 5.3. Theoretical Background

#### Table 68

**Variable wise Theoretical Background**

<table>
<thead>
<tr>
<th>Sr. No.</th>
<th>Variable</th>
<th>Theories</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Inclusive Education</td>
<td>-Social Justice &amp; Equality</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Foreman</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Haward Gardener’s</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Inclusive Education</td>
</tr>
<tr>
<td>2</td>
<td>Attitude</td>
<td>-Daniel Katz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Ivan Pavlov</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Festinger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Dary Bem.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-I.Aijzen &amp; M.Fishbein</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Functional Theory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Learning Theory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dissonance Theory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Self-Perception Theory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Theory of Reasoned Action.</td>
</tr>
<tr>
<td>3</td>
<td>Self-Efficacy</td>
<td>-Bandura</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Dr. Barbara Resniek</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Social learning theory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>self-efficacy theory</td>
</tr>
<tr>
<td>4</td>
<td>Skills</td>
<td>-Kurt Fischer</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Skill Theory</td>
</tr>
<tr>
<td>5</td>
<td>Curriculum development</td>
<td>-John kerr</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Kerlinger</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Hirst</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-Adorno, Marcuse, Horkheiner and Habermas</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Curriculum development theory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Descriptive Curriculum Theory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Prescriptive Curriculum Theory</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Critical Curriculum Theory</td>
</tr>
</tbody>
</table>
5.4. Inclusive education

Following Topics are covered in this point:

- Concept of Inclusion
- The principles of inclusion
- Historical Perspectives
- International Initiatives
- National Initiatives for Inclusive Education
- Principles, models of Inclusive Education
- Current Provisions of Law and Policy
- National Policy for person with disabilities – 2006 with reference to Inclusive education
- Policies concerning Education of children with disabilities
- The International Framework for Inclusive Education

5.5. Statement of the Problem

Status of Pre-service teachers Attitude, self-efficacy and Skills towards Inclusive Education and developing inclusive education curriculum framework for teacher education and formulate syllabus for pre service teachers, implement this syllabus in
three modes i.e. infused, isolated and isolated without training for the pre-service teachers and compare its effect.

5.6. Conceptual Definitions

Attitude

An attitude is a dispositional readiness to respond in certain situations persons or objects in a consistent manner which has been learnt & has become one’s typical mode of responses. (Freeman, 1968).

Self-Efficacy

Teacher’s self-efficacy can be defined as the teachers own belief in his or her capability to organize and execute courses of action required to successfully accomplish a specific task in a particular context. (Albert Bandura, 1993).

Skill

The ability to use one’s knowledge effectively and readily in execution or performance. (Merriam, Webster Dictionary).

5.7. Operational Definitions

Attitude

Pre-service teachers’ attitude towards Inclusive Education is defined as ability of Sentiments, concerns about Inclusive Education. Aspects of attitudes are considered from Dr. Umesh Sharma, Loreman Tim, Forlin C.and Chris Earle’s SACIE Scale.

Self-Efficacy

Self-efficacy means pre-service teachers own belief in his/her capability to organize & execute courses of action required to successfully accomplish a special student with normal students in Inclusive Education context. Aspects of self-efficacy are considered from Dr. Umesh Sharma, Loreman Tim, Forlin C.and Chris Earle’s SEIIP Scale.
Skill

Pre-service teacher’s skills towards Inclusive Education is defined as knowledge of what and how to teach in Inclusive Classroom and how to organize inclusive classroom, which skills are needed for inclusive classroom, these are the skills needed for Inclusive Education:-

- Understanding needs & ability of children special need
- Attitudinal change
- Awareness
- Pedagogical skills
  a) Instructional accommodation &
  b) Activity differentiation
- Academic Survival Skills
- Generic skills
- Functional Life Skill
- Adaptive Skills

Inclusive education curriculum:

It is a plan of course of Inclusive education curriculum considering the objectives of Inclusive education & duties of pre-service teachers.

Mode of Implementation of syllabus (M.I.S)

In the present study 3 Mode of implementation was used.


Mode-II-M.I.S. - Infused + Training + Providing Teaching Learning Material.


Mode-I - M.I.S. – Isolated + Training + Providing Teaching Learning Material

In this implementation Inclusive Education syllabus (Optional paper -BED 107-B) was taught separately. Short Training programme was given to teacher educator and
Teaching learning Material (PPT) was provided. This syllabus taught by only one Teacher Educator.

**Mode-II M.I.S -Infused + Training + Providing Teaching Learning Material**

In this Implementation Inclusive Education Papers Unit, Topics and content was taught in infused manner when Teacher Educator’s taught their core courses they were taught the topics of Inclusive Education with their course courses (core papers) & infuse it. Short Training programme was given to the teacher educators for this mode of implementation and also provided Teaching Learning Material (P.P.T) Related to Inclusive Education Topics. These Inclusive Education Paper’s topics included in the B.Ed. Syllabus’s 6 core courses (BED101 to 106). This syllabus taught by 6 teacher Educators.

**Mode-III M.I.S. – Isolated + Without Training + Not Providing Teaching learning Material.**

In this implementation Inclusive Education syllabus (Optional paper -BED 107-B) was taught separately. No training and no Teaching learning material given to the teacher educator. This syllabus was taught by only one Teacher Educator.

**Meaning / Explanation of Important Term -**

**Infused Syllabus -**

An Infused syllabus is a syllabus which is designed with the help of different subjects of B.Ed. Curriculum concerned with concepts Related to Inclusive education. Inclusive Education concepts was included in B.Ed. Syllabus’s 6 core courses i.e. BED 101- Education for Development in the 21st century, Course 102- Psychology of the learner and learning, course 103- Quality and Management of school Education – Issues and concerns, Course 104 – Advance pedagogy and Teaching, Course 105 – Advanced Evaluation procedures in learning, Course 106 – Instructional, Design and Integration of ICT in Teaching Learning.

**Isolated syllabus -**

An Isolated syllabus in the present study is a syllabus which is imparted directly as a separate paper (Optional paper -BED 107A Inclusive Education.)

*Note - Infused & Isolated syllabus’s content of units & Topics are same.*
5.8. Need

Teachers are considered to be the most important variable for students’ achievements and successful implementation of inclusive education. Inclusive education movements have brought substantial change in the policy and practice level of education in different parts of the world. Teachers need to be prepared for such change. Teachers thinking, belief and attitude impact on their own teaching competence as well as students achievements. The journey towards inclusive education learning friendly schools is just at the beginning stage. In response to the international policy declarations, Pune University has started reforming policy and practice in education to promote inclusive education. The teacher education curriculum for the Secondary level teachers in Pune University has been revised in 2008. Therefore, this study would be scope to see the status of the B. Ed trainee’s self-efficacy for and attitude, skill towards inclusive education of Pune University. This status would help to understand the effectiveness of the current pre service teacher education programs on preparing teachers for inclusive education.

5.9. Importance

Traditionally exceptional children have experienced exclusion; discrimination and segregation form the mainstream education. Only some of the exceptional children are placed in separate schools or classes. A large number of these children are not attending schools. So the general education system should be accommodate these exceptional child and accept for inclusive education. Therefore Teacher education programmes, teacher educators, teachers, parents & members of community should facilitate for the successful implementation of inclusive education. For the successful implementation of inclusive education, teacher education programme should - Sensitize the teacher trainees about inclusive education practices.

- Create awareness among all teacher trainees about the education of exceptional children.
- Develop positive attitudes in teacher trainees towards children with disabilities.
- Provide the knowledge about various disabilities to the teacher trainees.
- Equip the teacher trainees with skill to manage different categories of exceptional children in general classrooms.
• Develop awareness in teacher trainees about educational policies and programmes for children with special needs.
• Prepare resource teachers to deal with specific categories of disabilities.
• Develop skill in teacher trainees for encouraging family and community participation for the inclusion of disabled children in local mainstream schools.
• Undertake in service programmes for the regular classroom teachers to equip them with the skill of dealing with exceptional children.

This study focused on to identify whether Teacher Education develops self-efficacy for and attitude, skills in trainees towards inclusive education through Teacher Education curriculum, so in this aspect this study is important.

5.10. Objectives of the Study

1. To analyze Teacher Education curriculum concerned with Inclusive education.
2. To assess pre-service teacher’s attitude, self-efficacy, and skills towards Inclusive education.
3. To Develop Inclusive Education curriculum framework for Teacher Education and formulate syllabus for pre-service teachers.
4. To compare the effect of imparted syllabus in Isolated, Infused and Isolated without training mode on attitude, self-efficacy, skills.

5.11. Research Questions

1. What is the status of attitude, self-efficacy & skills of pre-service teachers toward Inclusive Education?
5.12. Research Hypothesis and Null Hypothesis

**H1:** Pre-Service teachers combined (Attitude, Self-efficacy & Skills) performance towards inclusive education is impacted by implementing mode- I (Isolated + Training+ Providing Teaching Learning Materials)

**H01:** There is no significant difference between the means score of pre-test and post-test combined (Attitude, Self-efficacy & Skills) of Pre-service teachers by implementing mode- I (Isolated + Training+ Providing Teaching Learning Material).

**H2:** Pre-Service teachers combined (Attitude, Self-efficacy & Skills) performance towards inclusive education is impacted by implementing mode- II (Infused + Training+ Providing Teaching Learning Materials)

**H02:** There is no significant difference between the means score of pre -test and post-test combined (Attitude, Self-efficacy & Skills) of Pre-service teachers by implementing mode- II (Infused + Training+ Providing Teaching Learning Material).

**H3:** Pre-Service teachers combined (Attitude, Self-efficacy & Skills) performance towards inclusive education is impacted by implementing mode- III (Isolated + without Training+ Not Providing Teaching Learning Materials).

**H03:** There is no significant difference between the means score of pre-test and post-test combined (Attitude, Self-efficacy & Skills) of Pre-service teachers by implementing mode- III (Isolated + without Training+ Not Providing Teaching Learning Material).

**H4:** Pre-Service teachers Attitude performance towards inclusive education is impacted by implementing Mode- I (Isolated + Training+ Providing Teaching Learning Material).

**H04:** There is no significant difference between the means score of pre- test and post-test for Attitude of pre-service teachers by implementing Mode - I (Isolated + Training+ Providing Teaching Learning Material).

**H5:** Pre-Service teachers Attitude performance towards inclusive education is impacted by implementing Mode - II (Infused + Training+ Providing Teaching Learning Material).
**H05:** There is no significant difference between the means score of pre-test and post-test for Attitude of pre-service teachers by implementing Mode – II (Infused + Training+ Providing Teaching Learning Material).

**H6:** Pre-Service teachers Attitude performance towards inclusive education is impacted by implementing Mode - III (Isolated + Without Training+ Not Providing Teaching Learning Material).

**H06:** There is no significant difference between the means score of pre-test and post-test for Attitude of pre-service teachers by implementing Mode - III (Isolated + Without Training+ Not Providing Teaching Learning Material).

**H7:** Pre-Service teachers Self-efficacy performance towards inclusive education is impacted by implementing Mode- I (Isolated + Training+ Providing Teaching Learning Material).

**H07:** There is no significant difference between the means score of pre-test and post-test for Self-efficacy of pre-service teachers by implementing Mode - I (Isolated + Training+ Providing Teaching Learning Material).

**H8:** Pre-Service teachers Self-efficacy performance towards inclusive education is impacted by implementing Mode - II (Infused + Training+ Providing Teaching Learning Material).

**H08:** There is no significant difference between the means score of pre-test and post-test for Self-efficacy of pre-service teachers by implementing Mode – II (Infused + Training+ Providing Teaching Learning Material).

**H9:** Pre-Service teachers Self-efficacy performance towards inclusive education is impacted by implementing Mode - III (Isolated + Without Training+ Not Providing Teaching Learning Material).

**H09:** There is no significant difference between the means score of pre-test and post-test for Self-efficacy of pre-service teachers by implementing Mode - III (Isolated + Without Training+ Not Providing Teaching Learning Material).
**H10:** Pre-Service teachers Skills performance towards inclusive education is impacted by implementing Mode- I (Isolated + Training+ Providing Teaching Learning Material).

**H010:** There is no significant difference between the means score of pre -test and post -test for Skills of pre-service teachers by implementing Mode - I (Isolated + Training+ Providing Teaching Learning Material).

**H11:** Pre-Service teachers Skills performance towards inclusive education is impacted by implementing Mode - II (Infused + Training+ Providing Teaching Learning Material).

**H011:** There is no significant difference between the means score of pre- test and post-test for Skills of pre-service teachers by implementing Mode – II (Infused + Training+ Providing Teaching Learning Material).

**H12:** Pre-Service teachers Skills performance towards inclusive education is impacted by implementing Mode - III (Isolated + Without Training+ Not providing Teaching Learning Material).

**H012:** There is no significant difference between the means score of pre -test and post-test for Skills of pre-service teachers by implementing Mode - III (Isolated + Without Training+ Not providing Teaching Learning Material).

**Comparison of Means of 3 Modes**


**For Pre – Test**

**H13:** Attitude of Mode I (M.I.S. – Isolated+ Training+ Providing Teaching Learning Material) is different than Mode II (M.I.S. – Infused+ Training + providing Teaching Learning Material).
H013: There is no significant difference between means score of attitude of Mode I and Mode II.

H14: Attitude of Mode I (M.I.S. – Isolated+ Training+ Providing Teaching Learning Material) is different than Mode- III (M.I.S. – Isolated+ without Training + not providing Teaching Learning Material).

H014: There is no significant difference between means score of attitude of Mode I and Mode III.

H15: Attitude of Mode II (M.I.S. – Infused+ Training+ providing Teaching Learning Material) is different than Mode III (M.I.S. – Isolated+ without Training + not providing Teaching Learning Material).

H015: There is no significant difference between means score of attitude of Mode II and Mode III.

H16: Self-efficacy of Mode I (M.I.S. – Isolated+ Training+ Providing Teaching Learning Material) is different than Mode II (M.I.S. – Infused+ Training+ providing Teaching Learning Material).

H016: There is no significant difference between means score of self-efficacy of Mode I and Mode II.

H17: Self-efficacy of Mode I (M.I.S. – Isolated+ Training+ Providing Teaching Learning Material) is different than Mode III (M.I.S. – Isolated+ without Training + not providing Teaching Learning Material).

H017: There is no significant difference between Means score of self-efficacy of Mode I and Mode III.

H18: Self-efficacy of Mode II (M.I.S. – Infused+ Training+ providing Teaching Learning Material) is different than Mode III (M.I.S. – Isolated+ without Training + not providing Teaching Learning Material).
**H018**: There is no significant difference between means score of self-efficacy of Mode II and Mode III.

**H19**: Skills of Mode I (M.I.S. – Isolated+ Training+ Providing Teaching Learning Material) is different than Mode II (M.I.S. – Infused+ Training+ providing Teaching Learning Material).

**H019**: There is no significant difference between means score of skills of Mode I and Mode II.

**H20**: Skills of Mode I (M.I.S. – Isolated+ Training+ Providing Teaching Learning Material) is different than Mode III (M.I.S. – Isolated+ Without Training + Not providing Teaching Learning Material).

**H020**: There is no significant difference between means score of skills of Mode I and Mode III.

**H21**: Skills of Mode II (M.I.S. – Infused+ Training+ providing Teaching Learning Material) is different than Mode III (M.I.S. – Isolated+ without Training + not providing Teaching Learning Material).

**H021**: There is no significant difference between means score of skills of Mode II and Mode III.

**For Post Test**

**H22**: Attitude of Mode I (M.I.S. – Isolated+ Training+ Providing Teaching Learning Material) is different than Mode II (M.I.S. – Infused+ Training+ providing Teaching Learning Material).

**H022**: There is no significant difference between means score of attitude of Mode I and Mode II.

**H23**: Attitude of Mode I (M.I.S. – Isolated+ Training+ Providing Teaching Learning Material) is different than Mode- III (M.I.S. – Isolated+ without Training + not providing Teaching Learning Material).
H023: There is no significant difference between means score of attitude of Mode I and Mode III.

H24: Attitude of Mode II (M.I.S. – Infused+ Training+ providing Teaching Learning Material) is different than Mode III (M.I.S. – Isolated+ without Training + not providing Teaching Learning Material).

H024: There is no significant difference between means score of attitude of Mode II and Mode III.


H025: There is no significant difference between means score of self-efficacy of Mode I and Mode II.

H26: Self-efficacy of Mode I (M.I.S. – Isolated+ Training+ Providing Teaching Learning Material) is different than Mode III (M.I.S. – Isolated+ without Training + not providing Teaching Learning Material).

H026: There is no significant difference between Means score of self-efficacy of Mode I and Mode III.

H27: Self-efficacy of Mode II (M.I.S. – Infused+ Training+ providing Teaching Learning Material) is different than Mode III (M.I.S. – Isolated+ without Training + not providing Teaching Learning Material).

H027: There is no significant difference between means score of self-efficacy of Mode II and Mode III.

H28: Skills of Mode I (M.I.S. – Isolated+ Training+ Providing Teaching Learning Material) is different than Mode II (M.I.S. – Infused+ Training+ providing Teaching Learning Material).

H028: There is no significant difference between means score of skills of Mode I and Mode II.

H029: There is no significant difference between means score of skills of Mode I and Mode III.

H30: Skills of Mode II (M.I.S. – Infused+ Training+ providing Teaching Learning Material) is different than Mode III (M.I.S. – Isolated+ without Training + not providing Teaching Learning Material).

H030: There is no significant difference between means score of skills of Mode II and Mode III.

5.13. Assumptions

Inclusive education Related Components are the part of curriculum of teacher education program (B.Ed.) of Savitribai Phule Pune University. (SPPU Revised Syllabus, 2008).

5.14. Scope of the Study

- The scope of the present study was all pre-service teachers.
- This study was related to Inclusive Education curriculum and three modes of implementation.
- This study was related to improving these three parameters (attitude, self-efficacy, skills) in pre-service teachers for imparting Inclusive Education Curriculum/syllabus.

5.15. Delimitations

- This research was limited to only pre-service teachers of Savitribai Phule Pune University.
- This research was limited to pre-service teachers Self efficacy for and Attitude, Skills towards Inclusive Education.
Course of pre-service teacher education is one year, so data was collected from pre-service teachers of Marathi and English medium in the same academic year (2014-15) only.

This study was limited to three B. Ed colleges affiliated to Savitribai Phule Pune University (for experimental study) and twenty colleges of Education from Savitribai Phule Pune University (for survey method)

Pre Test was conducted on three Colleges of Education (Azam, Adarsh & M.I.T) and Inclusive Education syllabus (Optional paper – 107 B) was implemented in three modes of implementation of syllabus from February 2015 to April 2015 and post test was conducted also survey was conducted on Twenty colleges of Education (Including these three colleges) affiliated to Savitribai Phule Pune University.

5.16. Limitations

- The findings of present study were depending on responses given by pre-service teachers and data collection tools & involvement in the treatment.
- Responses of pre-service teachers depend upon maturation, age, interest, mental state.

5.17. Significance of the Study

After this study we knew whether teacher training course of Savitribai Phule Pune University, Pune approaches inclusion of special need children? Previously there is an optional paper “special education” to train & prepare teachers to identify & diagnose disability. But it is not a core subject. In core subject Psychology paper includes concept of Inclusive Education. Researcher has developed inclusive education curriculum framework for Teacher Education and formulate Inclusive education paper syllabus that was as it is accepted by Savitribai Phule Pune University B.Ed. Revised syllabus committee & this syllabus included in B.Ed. 2014-15 Revised syllabus as an optional paper 107B- Inclusive Education. This study is focusing on how B.Ed. training develops pre-service teachers self-efficacy for, attitude, skill towards Inclusion education. The present study will be helpful to curriculum makers of Savitribai Phule Pune University, Pune in implementing modern and innovative ways of teaching strategies for Inclusive Education.
5.18. Types of Research

Any systematic and scholastic activity designed to promote the development of education as a science can be considered as educational research. Trover states “Educational research represents an activity directed towards the development of an organized body of scientific knowledge about the event with which education is concerned of central importance are the behavior patterns of pupils and particularly those to be learned through the educational process”.

Research can be classified on the basis of different objectives, approaches and purposes. There are three types of research studies:

5.18.1. Action Research

This research according to Corey, the originators of the term, “is the research undertaken by the practitioners so that they may improve their practices.”

Action research can be defined as “A small scale interaction in the functioning of the real world and a close examination of the effects of such interventions”. Action research is focused on immediate applications, not on the development of a theory or on general application. The main purpose of the action research is to find solution to day-to-day problems. In educational field this research is very suitable in schools and classroom in order to improve practice and to solve classroom problem. At the same time to combine research process, habits of thinking, ability to work harmoniously with others and professional spirit.

5.18.2. Basic Research

Basic research is also called as fundamental research. It is designed to add to the scientific knowledge in the concerned field. It is not concerned with day-to-day phenomenon and problems. According to Kerlinger “Basic research is done to test theory with little or no thought of application of the results of the research to practical problems”.

5.18.3. Applied Research

Applied research is also called field research. It is directed towards the solution of immediate, specified and practical problems. The main objective of applied research
is to ascertain whether a particular theoretical model is to ascertain to a specific situation or not its purpose is to improve a product or a process. (It is very relevant for policy formation for a specific target group like literates, adult and children in slum areas, or mentally retarded children). The present research is of applied type because here the researcher is interested in finding out the, attitude, self-efficacy and skills of pre-service teachers towards inclusive education.

5.19. Methods of Research

Educational research uses certain methods to get information arranged and get solution to educational problems.

Methods in Educational Research are defined as:

“That range of approaches used to gather data which are to be used as a basis for inferences and interpretation for explanation and prediction”.

The method of research is classified into 3 types:

5.19.1. Historical Research

Historical method of research has been defined as, “The systematic and objective location, evaluation and synthesis of evidence in order to establish facts and draw conclusions about past events”. The historical method may be defined as a research, which studies the past events, and the problems of education, which had occurred in the past. The purpose behind using this method is that when an event occurred it cannot be changed history shows direction. Whatever mistakes are committed in the past should be improved in the present and implemented in future. The process involves investigation recording, analyzing and interpreting the events of the past. It aims at collection of data about the past for logical and objective method. The most important point is that a researcher has to find out the authenticity of facts by critically evaluating the nature of primary and secondary sources of information.

5.19.2. Experimental Method

Experimental research describes ‘what will be’ when certain variables are carefully controlled or manipulated. The focus is on the relationship between variable. It is defined as, “The procedure which consist in deliberate and controlled modification of
the conditions determining an event, and in observation and interpretation of the ensuring changes in the event itself”.

The four essential characteristics of experimental research are control, manipulation, observation, and replication. The main agenda of using experimental method is to study the changing responses of the target group (students) to variation in the presentation of some matter. Experimental method enables the researcher to have greater control over the operations of external factors. This gives more precision to the findings in contrast to field investigation.

5.19.3. Descriptive Method

This method is concerned with conditions or relationship that exist, practices that prevail, beliefs, points of view or attitudes that are held processes that going on, effects that are being felt or trends that are developing. The process of descriptive research goes beyond mere gathering and tabulation of data. It involves an element of interpretation of the meaning of significance of what is description is often combined with comparison or contrast involving measurement classification, interpretation and evaluation.

5.19.4. Survey Method

The purpose of survey type research according to Kerlinger (p.410) is to discover the relative incidence, distribution, and their inter relations of sociological and psychological variables. Survey type studies, by and large, describe the current status of a phenomenon, some group of people, an institution, some exiting practice, policy or events. Survey method is conducted to collect detailed description of existing phenomena with the intent of employing data to justify current conditions and practices are to make more intelligent plans for improving them. The objective to analyses, interpret and report the status of an institution, group of programs in order to guide practice in the immediate future, but also to determine the adequacy of status by comparing it with established standards. Survey research is a method for collecting and analyzing data, obtained from a large numbers or respondents representing a specific population, collected through highly structured and detailed questionnaire or interviews.
5.19.5. Casual-comparative studies

In some investigation, the researcher attempts to explore not only what a phenomenon is like, but how and why it occurs. In such cases, the aim of the researcher is to compare the likeness and differences among phenomenon to discover what factors are responsible to the occurrence at certain events conditions or practices.

5.19.6. Case Study

Case study is a method in which the researcher typically “observe” the characteristics of an individual unit – a child, a class, a school, an institution or a community with the purpose to probe deeply into it and to analyze intensively to multifarious phenomena that constitute the life circle of the unit with a view to establish generalizations about the wider population to which that unit belongs. A case study is not different to a survey, but instead of collecting information about few factors from a large numbers of units the researcher makes a depth and intensive study of a limited numbers of representative cases.

5.19.7. Co-relation study

Correlation and prediction studies are concerned with determining extent of relationship existing between variables. They are used to obtain description of existing phenomena. It enables the researcher to ascertain the extent to which variation in one variable are associated with variation in another. The magnitude of the relationship is determined through the use of the coefficient of correlation. The correlation study is relatively easy to design and conduct.

5.19.8. Developmental studies: Product development-

Product development is the process of designing, creating and applying newly it (the product) in the world of work for the benefits of educational users.

5.20. Paradigm of research-status, trait and cause and effect

Paradigms of educational research -

Considering the nature of inquiry research topic can be classified into three research paradigm
**Status- Paradigm** - The inquiry explains in detail about the facts of study variables then that research paradigm is said status paradigm.

**Trait Paradigm** - After knowing the facts or status of study variables, researcher is interested to know the relationship among or between variables then that research paradigm is recognized as trait paradigm.

**Cause and effect- paradigm** - when researcher is interested in finding out the reason behind the happening or phenomenon or cause is implemented and its effect is studied on the dependent variables then this type of study falls under cause and effect paradigm.

5.21. Methodology and Procedure

**Method** - The present work was carried out by applying multi method i.e. Survey, Experimental Method, Document Analysis, Product Development. (A. Preparation of Inclusive Education curriculum framework for Teacher Education and formulate inclusive education syllabus for pre-service teachers B. Preparation of Teaching learning Material of Inclusive Education syllabus.)

**Objective wise use of Methods**

e) For 1st objective studied with status paradigm and Document Analysis method was used.

f) For 2nd objective studied with status paradigm and Survey Method was used.

f) For 3rd objective Product Development method was used.

h) For 4th objective studied with cause and effect paradigm and quasi experimental design was used.

**Population**- Pre-service teachers from all teacher education Institutions affiliated to Savitribai Phule Pune University, Pune (2014-15)

**Sample and sampling techniques** - Selection of B.Ed. Colleges & Selection of Pre-Service Teacher’s -

**For Survey**- 20% colleges of education from S.P. Pune University and 100% students of the same colleges were included in the survey by using incidental sampling.

**For Experimental**- For these study three colleges of education was selected by using purposive sampling technique.

**Variable of the Study**-
Dependent Variables - Pre-service teacher’s Attitude, Self-efficacy, Skills

Independent Variables -

A). Inclusive Education curriculum/syllabus – 3 Modes of implementation

e) Mode- II: - M.I.S. -Infused + Training + Providing Teaching Learning. Material

(B). Short training for Mode I- Isolated, and Mode II–Infused was imparted to the teacher educators.

Short Training: Short training for one week was given to teacher educators on how to teach inclusive education syllabus in infused & isolated mode of implementation. After completing the training teacher educators of B.Ed. College taught inclusive Education syllabus to pre-service teachers. As per the experimental design the training was imparted to group. (Mode I and Mode II) and Mode-III was not involved in the training.

5.22. Plan of Data collection tools & techniques

For 1st objective: Document analysis method was used. Data Sheet was used to record analysis points. Data sheets were prepared by researcher.

For 2nd objective: 1 The Sentiments, Attitudes & Concerns about Inclusive Education (SACIE) Scale, Self- efficacy in Implementing Inclusive Practices Scale(SEIIP) (By Dr Umesh Sharma, Loreman Tim, Chris Earle, Forlin, C.) And Researcher made skill in implementing inclusive practices scale (SIIIP-scale) was used. (Mentioned in 3.6)

For 3rd objective: Product development method used.(Mentioned in 3.7)

For 4th objective: Experimental Method was used. Researcher made pre and post-test was implemented to assess attitude, self- efficacy and skills of pre service teachers. The version of pre- test, post-test was different of the same test. After taking pre-test inclusive education syllabus was implemented and post-test taken. (Mentioned in 3.10)
**Statistical Tools** - Descriptive statistics (Standard Deviation, Mean, t test.)

**5.23. Major Findings of the Research**

1. Two courses from B.Ed. syllabus (Revised from 2008-2013) namely ‘psychology of development and Learning’ and ‘Introduction to Guidance and Counseling’ in school are carried out the topics directly related to Inclusive education. (Table 34 to 37).

2. Gender wise Attitude of pre-service teacher’s towards inclusive education is almost same. (Table 40).

3. Age wise Attitude of pre-service teacher’s towards inclusive education is almost same. (Table 41).

4. Qualification wise (Graduate and Post-graduate) attitude of pre-service teacher’s towards inclusive education is almost same. (Table 42).

5. Gender wise Self-efficacy of pre-service teacher’s towards inclusive education is almost equal. (Table 40).

6. Age wise Self-efficacy of pre-service teacher’s towards inclusive education is almost equal. (Table 41).

7. Qualification wise Self-efficacy of pre-service teacher’s towards inclusive education is almost equal. (Table 42).

8. Gender wise Skills of pre-service teacher’s towards inclusive education is almost similar. (Table 40).

9. Age wise Skills of pre-service teacher’s towards inclusive education is almost similar. (Table 41).

10. Qualification wise Skills of pre-service teacher’s towards inclusive education is almost similar. (Table 42).

11. Pre-service teacher’s attitude was improved due to imparting infused and isolate syllabus of inclusive education providing training to teacher educators along with teaching learning Material. While there is no impact by imparting isolated syllabus without training and not providing teaching learning material. (Table 64).

12. Pre-service teacher’s Self-efficacy was improved due to imparting isolated syllabus with training and providing teaching learning material and isolated syllabus without training and not providing teaching learning material. But there is
no impact on Self-efficacy in case of implementing infused syllabus; even though training and teaching learning material was provided. (Table 65).

13. Pre-service teacher’s skills was improved due to imparting infused and isolated syllabus of inclusive education providing training to teacher educators along with teaching learning material. While no impact by imparting isolated syllabus without training and not providing teaching learning material. (Table 66).

14. Pre-service teacher’s Capabilities Combined (Attitude, self-efficacy and Skills) to perform inclusive education practices changes positively by imparting instruction through isolated syllabus and infused syllabus along with providing training and teaching learning material. (Table 67).

15. Pre-service teacher’s capabilities (attitude, self-efficacy, skills) to perform inclusive practices are more effective in isolated syllabus than infused syllabus. Both syllabuses imparted with training to teacher educators and providing teaching learning material. (Table 67).

16. Factors facilitating inclusion of students with disabilities in classroom are trained teachers for use of proper teaching techniques and methods, assessment skills, counseling skills and also proper infrastructure and support system is essential for successful inclusion. (Table 43).

17. Factors hindering inclusion of students with disabilities in the classroom are inadequate training of teachers, inadequate infrastructure and time also insufficient administration. (Table 44).

5.24. Conclusion

1. Teacher education program syllabus ‘psychology of development and Learning’ and ‘Introduction to Guidance and Counseling’ in school provides knowledge of inclusive education.

2. Pre-service teachers possess almost same attitude, self-efficacy and skills towards inclusive education irrespective of age, gender and educational qualifications.

3. Pre-service teacher’s capabilities (attitude, self-efficacy, skills) to perform inclusive practices improves due to imparting syllabus by isolated and infused way, providing training and teaching learning material.
4. Three Factors facilitating inclusion of students with disabilities in classroom are teacher’s abilities (related to teaching learning, assessment and counseling skills,) proper infrastructure and support system is essential for successful inclusion.
5. Three Factors hindering inclusion of students with disabilities in the classroom are inadequate training of teachers, inadequate infrastructure and insufficient administration or administrative support.

5.25. Discussion of findings

Success of Inclusive education practices are majorly depends on the positive attitude of all stakeholders’ towards inclusion of disabled students in regular classroom. Preparing teachers for inclusive classroom teacher education institute play vital role. During preparation, change in attitude of pre-service teachers is the role of teacher education institutions.

Pre-service teacher’s concern about inclusive education (Loreman et. al.2005; Bradshaw and Mundia, 2006; Subban and Sharma, 2006.), Pre-service teachers readiness for teaching diverse learners (forlin et.al.1999; engelbrecht and forlin, 1998; forlin, 2001) and their attitude towards inclusive education practices (Corroll et. al. 2003; Sharma et. al.2003; Loreman et. al.2005; Subban and Sharma, et. al.2005). The finding of this study regarding attitude of pre-service teacher’s is critical factor is consistent with above all reported studies. This finding is also supported by previous study (Parashuram, 2006; Sharma, Moore and Sonawane 2009).

Demographic factor, gender wise attitude of pre-service teachers towards inclusive education is almost same which not consistent with the study of (Auramids et. al.2000). Age wise consideration of pre-service teachers attitude (Age level- below 25 years, 25-30 years, 31-35years, 36-40years and above 40 years) are almost same in this study is similar to the finding of study conducted by Todorovic, J.et.al. 2011).

This study emerged with five key findings regarding improvement in pre-service teachers attitude, self-efficacy and skills to perform in inclusive classroom.

1. Pre-service teacher’s attitude was improved due to imparting infused and isolate syllabus of inclusive education providing training to teacher educators along with
teaching learning Material. While there is no impact by imparting isolated syllabus without training and not providing teaching learning material. (Table 64).

2. Pre-service teacher’s Self-efficacy was improved due to imparting isolated syllabus with training and providing teaching learning material and isolated syllabus without training and not providing teaching learning material. But there is no impact on Self-efficacy in case of implementing infused syllabus; even though training and teaching learning material was provided. (Table 65).

3. Pre-service teacher’s skills was improved due to imparting infused and isolated syllabus of inclusive education providing training to teacher educators along with teaching learning material. While no impact by imparting isolated syllabus without training and not providing teaching learning material. (Table 66).

4. Pre-service teacher’s Capabilities Combined (Attitude, self-efficacy and Skills) to perform inclusive education practices changes positively by imparting instruction through isolated syllabus and infused syllabus along with providing training and teaching learning material. (Table 67).

5. Pre-service teacher’s capabilities to perform inclusive practices are more effective in isolated syllabus than infused syllabus. Both syllabuses imparted with training to teacher educators and providing teaching learning material. (Table 67).

Results of the study is consistent with study already conducted by (unianu et.al.2012) reveals that teachers attitude towards inclusive education could be developed and form due providing specific educational context, as curriculum, training. Sharma, Chow and Emily, 2008; emerged with important findings with their study that availability of learning support changes attitude of teachers which is related to the key factors of this conducted study. Also results of the study conducted by Khan, Reshama (2015) indicated that pre-service teacher acquire special education and training related children with special needs ability to handle inclusive classroom improves, supports the key finding this study that capabilities (Attitude, self-efficacy and Skills) of pre-service teachers improves due to implementation of curriculum with infused, isolated with training and teaching learning material.(Tayade, Monica 2015.), in her study conclude that most of the pre-service teacher showed agreement to maintain proper discipline in classroom and ability to handle all student in inclusive classroom also showed agreement to use different teaching method and to change teaching techniques as per students need in the inclusive classroom.
revealed in their study that attitudes towards the inclusion of pupils with SEN could predict both pre-school and primary school teacher’s self-efficacy. Teachers who were more experience had more positive attitudes than teachers with less experience, whereas teaching experience had no effect on teacher’s sense of self-efficacy in teaching pupils with SEN.

(Cobanoglu, Rahime 2011.), the finding of his study said that early childhood teacher perceived themselves to be highly efficacious is noticeable given the improving role of having a high sense of teacher self-efficacy on educational practices and out comes as prevalently discussed (e.g. Bandura, 1993; Berman and McLaughlin, 1977; Brown,2005; Chung narvin and Churchill. 2005; Gibson and Dembo, 1984; Gu and Day, 2007; Guo, piasta Justice and Kaswravek, 2010; Guskey and Passaro, 1994; Kim and Kim, 2010; Tschannen-moran and woodfolk Hoy, 2001; Tucker et al; 2005). So called teacher effectiveness commonly associated with teacher self-efficacy belief in literature becomes strongly evident in the current study in the extent of the curriculum implementation of early childhood teachers, for those with a higher sense of self-efficacy were considerably more likely to practice the premises of constructivist curriculum with respect to content selection and learning process in early education.

An Israel based study of (Shlomo, R. and Yona, L. 2006.), revealed lower scores on the general teaching efficacy factor (GTE), Suggesting some concern regarding the extent to which students can be successfully taught given such factors as non-supportive home environments, IQ or other external constraints.

Responses indicated much higher score on personal teaching efficacy (PTE) and on teacher efficacy regarding social relation (TES). The highest level of efficacy was obtained for the efficacy for supporting low-achieving students.


(Sonawane, S. and Vartak, L. 2015.), their study is about infused curriculum-A teacher educators perspectives is also similar to present studies infused syllabus concept.
(Mill, J.E., Ayre, M.E. and Gill, J. 2006.), their study is about perceptions and understanding of gender inclusive curriculum in engineering education. In present study investigator prepared inclusive education curriculum framework for teacher education.

(Lepage, P., Courey, S., Fearn, E.J., Benson, V., Cook, E., Hartmann, L., Nielsen, S., 2010.), Recommended in their study to provide additional special education content in the general teacher education program to cater highly diverse students need in inclusive classroom. Present study also reveals similar findings regarding the enhancing inclusive education content in the regular teacher education programme of savitribai phule Pune University, Pune.

Also investigator implemented different modes of implementation of syllabus i.e. isolated + training + providing teaching learning material, infused + training + providing teaching learning material, isolated + without training + Not providing teaching learning material. Findings of the present study is pre-service teachers Capabilities combined (Attitude, self-efficacy and skills) to perform inclusive education practices changes positively by imparting instruction through isolated syllabus and infused syllabus along with providing training and teaching learning material these findings supported by previous study conducted by (Smantser, A. and Ignatovitch, E. 2015.), Future teacher training for work in inclusive educational environment: Experimental study results.

5.26. Recommendations

1. Teacher education curriculum revised by NCTE regulations (2014) includes inclusive education but training and learning material to be provided for improving capability of future teachers.

2. Inclusive education related skill components should be included in practicum part of teacher education program.

3. Inclusive education syllabus to be implemented in infused mode with 6 week training to teacher educators.

4. Teaching learning material to be prepared and provided to teacher educators.
5.27. Contribution to Knowledge in the Field

This piece of research added in the literature of teacher education preparing teachers for inclusive education as followings.

- Demographic variable wise (age, gender and qualification) status of pre-service teacher towards inclusive education.
  - Pre-service teachers possess almost same attitude, self-efficacy and skills towards inclusive education irrespective of age, gender and educational qualifications.
  - Skills in implementing inclusive practices scale (SIIIP scale) developed through this research to assess skills of pre-service teachers to perform inclusive practices in the classroom.

- Teacher education curriculum and syllabus related to inclusive education and its content for pre-service teachers.
  - Only psychology of development and Learning’ and ‘Introduction to Guidance and Counseling’ in school papers few content is directly related to inclusive education.

- Modes of implementation of syllabus with training and providing teaching learning material to the teacher educators.
  - Pre-service teacher’s capabilities (attitude, self-efficacy, skills) to perform inclusive practices improves due to imparting syllabus by isolated and infused way providing training and teaching learning material.
  - Pre-service teacher’s attitude was improved due to imparting infused and isolate syllabus of inclusive education providing training to teacher educators along with teaching learning Material. While there is no impact by imparting isolated syllabus without training and not providing teaching learning material.
  - Pre-service teacher’s Self-efficacy was improved due to imparting isolated syllabus with training and providing teaching learning material and isolated syllabus without training and not providing teaching learning material. But there is no impact on Self-efficacy in case of implementing infused syllabus; even though training and teaching learning material was provided.
  - Self-efficacy improves due to isolated mode and not effective due to infused mode.
- Pre-service teacher’s skills was improved due to imparting infused and isolated syllabus of inclusive education providing training to teacher educators along with teaching learning material. While no impact by imparting isolated syllabus without training and not providing teaching learning material.

- Teachers abilities (Related to teaching learning, assessment and counseling skills), proper infrastructure, support system are the factors facilitating inclusion and inadequate training of teachers, inadequate infrastructure, insufficient administration are the factors hindering for inclusion of disabled students in the regular classroom.

- Infusion philosophy of curriculum implementation of inclusive education syllabus for pre-service teacher education was one of the important aspect of the study.

5.28. Suggestions for Further Research areas related to inclusive Education

1. Curriculum and syllabus analysis comparison between various universities of different countries.

2. Attitude, self-efficacy & skills of in-service teachers towards inclusive education.

3. Attitude, self -efficacy & skills of teacher educators towards inclusive education.

4. Attitude, self-efficacy & skills of pre-service teachers towards inclusive education and comparison of various countries/universities status.

5. Impact of imparting curriculum by different modes with training and providing teaching learning material in different countries/universities.

6. Impact of infused mode imparting inclusive education syllabus to be conducted on in-service teachers.