

CHAPTER 3

RESEARCH DESIGN AND METHODOLOGY

3.0. Introduction

In academic research, the selection of appropriate research methodology is essential as it provides a coherent framework that guides the entire research process. This framework ensures a systematic and logical approach to addressing the research problem.

The present study “M.Ed. Curriculum and its Transaction” followed a set of structured procedures, which informed and guided every methodological decisions throughout the research process, including selection of research design, data collection, analysis, interpretation and final reporting of the findings.

This chapter provides a comprehensive overview of the research design and methodology employed in this study. It outlines the specific procedures, tools and techniques used to collect, analyse and interpret the data, ensuring that the research process remains aligned with the present study’s objectives. The systematic approach followed here ensure that research findings contribute meaningfully to the field of enquiry.

3.1. Research Design

Convergent mixed method design was employed to collect, analyse and interpret quantitative and qualitative data. “Mixed Methods” denotes a research methodology that facilitates the systematic integration or “mixing” of both quantitative and qualitative data within a single investigation or an extended programme of enquiry (Reddy, 2019). The concept of integrating different methods can be traced back to 1959, when Campbell and Fiske pioneered the use of multimethod to assess the validity of psychological traits. Recognizing the limitations inherent in all the research methods, this initiative by Campbell and Fiske spurred interest in scholars to combine field methods such as observation and interviews (qualitative), with traditional surveys (quantitative data). By early 1990s the focus of mixed methods shifted from merely seeking convergence to the more intricate process of integrating and connecting qualitative and quantitative data (Cresswell, 2009).

The integration of mixed methods has prompted researchers worldwide to develop structured procedures for mixed method strategies of inquiry. These strategies encompass a variety of

terms found in the literature, including multimethod, convergence, integrated and combined approaches. Each term reflects a distinct aspect of the process, shaping the procedures researchers used to effectively blend qualitative and quantitative data collection and analysis within a cohesive research framework (Cresswell & Clark, 2007). The data collected through field notes, survey interviews, focus group discussions were analysed using a thematic analysis approach. This approach facilitated the identification and interpretation of patterns within the data. The following figure illustrates the procedure employed in conducting the convergent mixed method study, highlighting the integration of both qualitative and quantitative data for a comprehensive analysis.

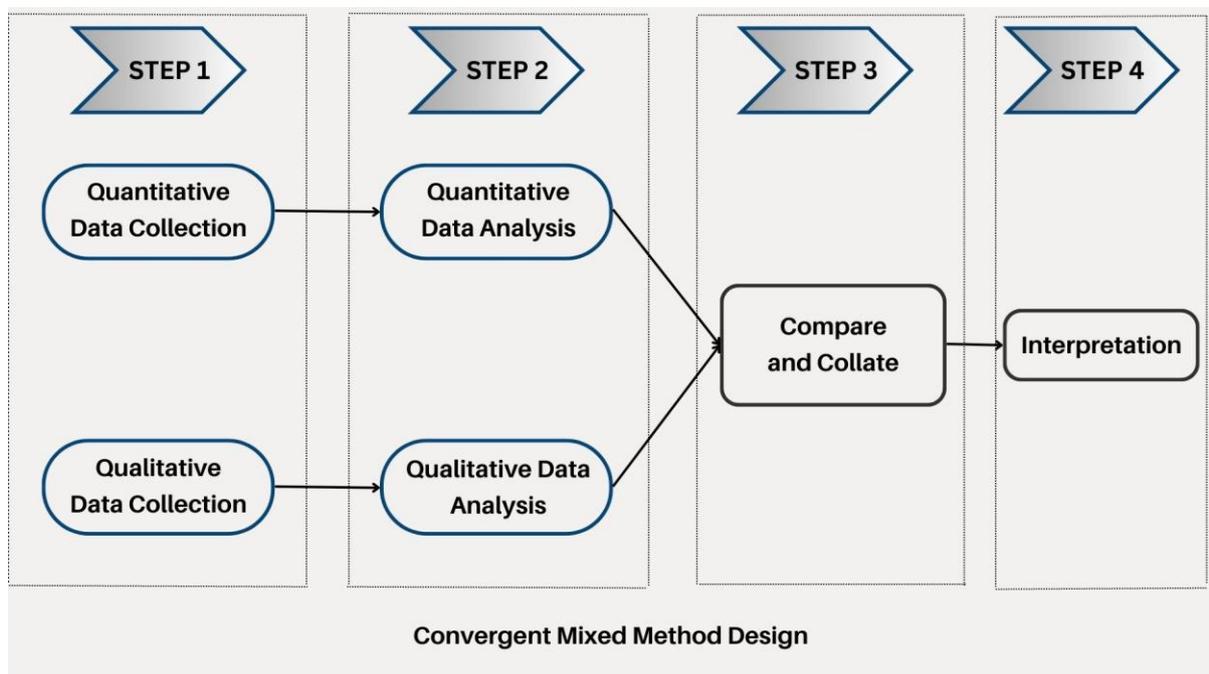


Figure 3.1.: Convergent Mixed Method study Design based on (Cresswell & Clark, 2007)

The present study employed a convergent mixed method design to gain a comprehensive understanding of the M.Ed. Curriculum and its transaction in the state of Gujarat. This design was chosen for its ability to integrate both quantitative and qualitative data, thereby providing complementary insights into the same research components. Data were collected from three key sources: M.Ed. students, teacher educators and head of the departments of education, ensuring that multiple perspectives on the curriculum and its transaction were captured and analysed.

The decision to employ a mixed method approach stemmed from the recognition that both quantitative and qualitative data offer unique advantages. While quantitative data provide generalizable patterns and trends, qualitative data offer depth and context, highlighting the underlying reasons and experiences. To capitalize these strengths, the quantitative and qualitative data strands were executed simultaneously. This parallel execution not only helped the researcher by optimizing the use of resources but also efficiently served the purpose.

The quantitative and qualitative data strands were independently analyzed before being collated and triangulated. The triangulation process allowed the researcher to combine the quantitative and qualitative results, leading to a more comprehensive and nuanced understanding of the M.Ed. curriculum transaction. By employing the convergent mixed method design, the study provided a holistic picture of the M.Ed. curriculum transaction in the state of Gujarat.

3.2. Statement of the problem

A Study of Master of Education (M.Ed.) Curriculum and Its Transaction

3.3. Research Questions

For the present study following research questions were studied:

1. How does the M.Ed. curriculum in various universities in Gujarat align with Curriculum Framework of Two-Year M.Ed. Programme proposed by NCTE (2014)?
2. What are the components of M.Ed. curriculum in the public universities of Gujarat?
3. How does the curriculum address contemporary issues in education at local, regional, national and global level?
4. How do teacher educators in Gujarat implement and transact M.Ed. curriculum in classroom settings?
5. What teaching strategies and methodologies are most commonly employed in delivering the M.Ed. curriculum?
6. What are the perception of teacher educators regarding the relevance and effectiveness of M.Ed. curriculum?
7. How do M.Ed. students perceive the quality of the curriculum and its relevance to their professional goals?
8. How does the M.Ed. curriculum prepare students for leadership roles in education?

9. How does the curriculum foster research and innovation in education among the M.Ed. students?
10. What are the challenges faced by teacher educators and M.Ed. students?
11. What value addition is required to strengthen M.Ed. programme in the state of Gujarat?

3.4. Objectives of the Study

The objectives for the present study are:

1. To study the curriculum inputs of teacher education institutions of Gujarat aligning with the Curriculum Framework: Two-Year M.Ed. Programme proposed by NCTE (2014)
2. To study the transaction of curriculum components in the teacher education institutions of Gujarat in terms of Common Core Components, Specialization Branches, Internship / Field Attachment and Research Leading to Dissertation.
3. To study the opinions of the M.Ed. students and teacher educators with regard to the quality of the curriculum and relevance to professional goals.
4. To study the issues and challenges in implementing M.Ed. two year curriculum in terms of physical facilities, faculty position, curriculum transaction and evaluation.
5. To suggest the value addition to strengthen M.Ed. programme in the state of Gujarat.

3.5. Explanation of the Terms

The explanations of the terms used in the research are based on Curriculum Framework: Two-Year M.Ed. Programme proposed by NCTE (2014)

- **Common Core Components:** It refers to the courses (Theory and Practicums) related to Perspective, Tool and Teacher Education Courses. *Perspective Courses* focuses on the areas related to Philosophy of Education, Sociology-History-Political Economy of Education, Psychology of Education, Education Studies and Curriculum Studies. *Tool Courses* comprise of basic and advanced level education research, academic writing and communication skills; Educational Technology and ICT; self-development (with focus on gender and society, inclusive education; and physical and mental well-being through modalities like yoga). *Teacher Education Courses* (which are also linked with the field internship / immersion / attachment in a teacher education institution) shall help the beneficiary in developing professionally as a teacher educator.

- **Specialization Branches:** It refers to the Core and Specialization courses (Theory and Practicums) in any one of the school levels / areas (such as elementary, or secondary and senior secondary) and further thematic specializations pertinent to specific stage such as: Curriculum, Pedagogy and Assessment; Policy, Economics and Planning; Educational Management and Administration; Education for differently abled; Education Technology etc.
- **Internship / Field Attachment:** It refers to engagement of prospective teacher educator in teacher education institution which is related to area of specialization.
- **Research leading to Dissertation:** It refers to leading the students (in close mentorship of a faculty member) to learn plan and conduct a research (related to specialization / foundations) and write a thesis.

3.6. Delimitation of the Study

The study is delimited to University Departments of Education of Universities offering two year M.Ed. Programme in Gujarat State.

3.7. Methodology

The present study is a Descriptive Survey. Convergent Mixed Method Design was used for collecting the data. Thus both quantitative and qualitative approaches were used in the present study.

3.7.1. Population

The present study focusses on the two-year M.Ed. program in the state of the Gujarat. Therefore the study intends to generalize the findings related to M.Ed. program offered in all the universities in the state of Gujarat. Thus the population of the study constitute the personnel engaged in the transaction of M.Ed. programme in the universities of Gujarat which includes the Head of the Department, teacher educators and students pursuing M.Ed. Program. There are ten public universities in Gujarat offering two year M.Ed. programme at their university departments of education. A total of 347 students were enrolled and 69 teacher educators were working at their respective department of education in the year 2022-23.

3.7.2. Sample

All the ten public universities that are offering two-year M.Ed. programme at their Departments of Education, were selected for the study. However data could not be collected from one university. One of the sampled universities was a central university and eight were state universities. Data was collected from Second year M.Ed. Students, teacher-educators teaching in two year M.Ed. programme and Head of Departments of Education of these sampled universities. Data was collected from a total of 235 students and 34 teacher educators that were randomly selected. These phases are described below:

Phase one: In this phase, researcher personally visited all the sampled universities to collect data from Second year M.Ed. students and teacher educators with the help of Questionnaire.

Focus Group Discussions were conducted with the M.Ed. students after the data was collected through the questionnaire. Researcher also observed the infrastructure and facilities provided as per the Gazette of India, Part III - Sec. 4 which includes Classrooms, Seminar Room, Faculty rooms, Administrative office, Library, Resource Room etc.

Phase two: In this phase, the researcher observed the Internship conducted by the university departments. The internship is conducted in two phases. In one phase the M.Ed. students are interned in the Teacher Education Institutions, while in the other phase, the internship takes place in the specialized areas.

Researcher observed the internship of three sampled universities. In two universities, the researcher observed the internship at Teacher Education Institutes for one week each and in one university the internship at specialized area was observed for two days. These universities were selected keeping in mind that the duration of internship does not clash.

- **Phase three:** Semi structured interviews were conducted with all the nine heads of Departments of Education of the sampled public universities of Gujarat. It focused on transaction of M.Ed. curriculum and issues / challenges faced by them at implementation level in terms of physical facilities, faculty position, curriculum transaction and evaluation.

Semi structured interviews were also conducted with the experienced teacher educators of the departments of education of all the sampled universities.

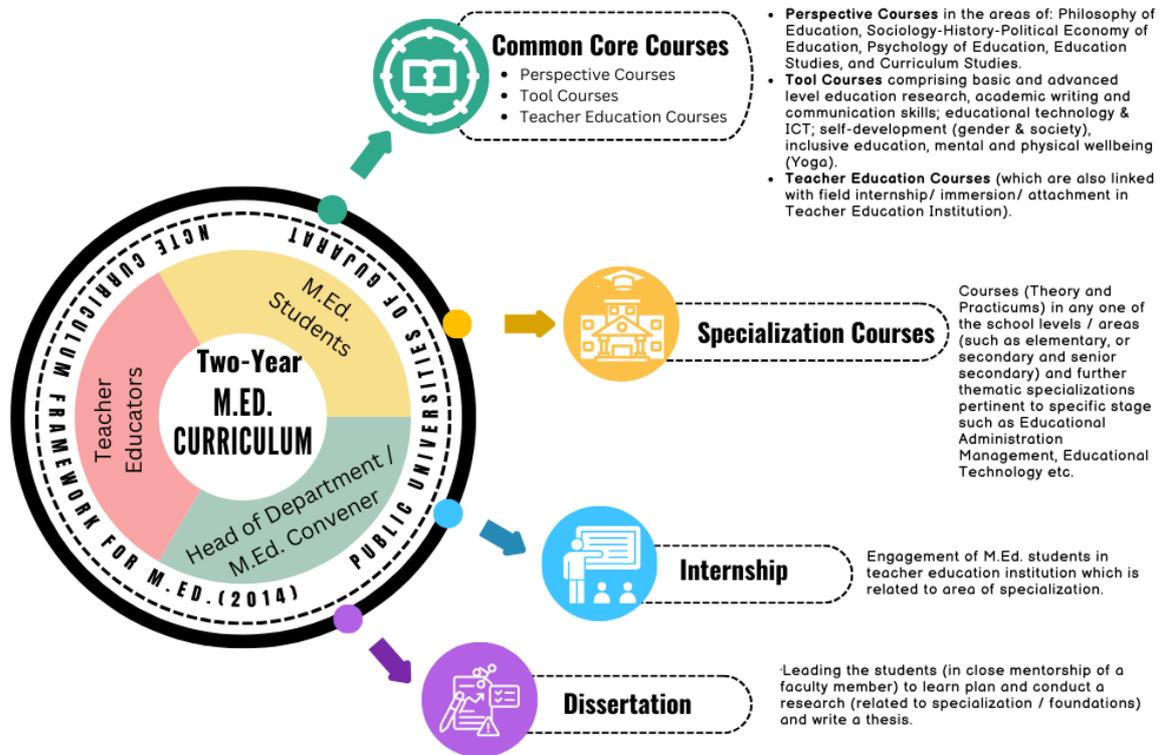


Figure 3.2.: Sources of data collection and focus areas

The above figure describes the sources of data and focus area of data collection

3.7.3. Tools for Data Collection

Researcher developed the following research tools to collect the data from various sample groups:

- **Questionnaire for M.Ed. Students:** This questionnaire was prepared by the researcher and validated by the experts. It consisted of seven parts of which first five parts focused on Common Core Courses, Academic Writing, Specialization Branches, Internship / Field Attachment and Research Leading to Dissertation. Each of these parts consisted of few items in five point scale which helped in knowing the opinions of the second year M.Ed. students with regard to relevance of the two year M.Ed. curriculum. Rating scale items in each part of the questionnaire were followed by open ended items. The sixth part of this tool helped the students to introspect about Academic Writing skills,

Communication skills, Presentation skills, Research skills, Pedagogical skills, Leadership skills, Self-Management skills, Social skills, Emotional Intelligence, ICT skills, Global Concerns in Education, International Comparative Education Perspectives, Indian Knowledge Systems and priority areas of National Education Policy (2020). The last part consisted of an open ended question about the suggestions for enriching the present M.Ed. curriculum.

- **Questionnaire for Teacher Educators teaching M.Ed. Students:** The questionnaire was prepared by the researcher and validated by the experts. It consisted of six parts of which first five parts focused on Common Core Courses, Academic Writing, Specialization Branches, Internship / Field Attachment and Research Leading to Dissertation. Each of these parts consisted of few items in five point scale which helped in knowing the opinions of the teacher educators teaching M.Ed. students with regard to relevance of the two year M.Ed. curriculum. In each part of the questionnaire, the rating scale items were followed by open ended items. The last part consisted of an open ended question about the suggestions for enriching the present M.Ed. curriculum.
- **Focus Group discussions with M.Ed. Students:** Data was collected from the second year M.Ed. students, through focus group discussions, which helped the researcher to know the experience of the students about the M.Ed. programme with specific reference to the different components of M.Ed. curriculum organized in their respective teacher education institution and problems faced by them.
- **Interview schedule for Teacher Educators:** Data was collected from the teacher educators who were teaching the M.Ed. classes, through semi-structured interviews, which helped the researcher to understand how the different components like Common Core Components, Academic Writing, Specialization Branches, Internship / Field Attachment and Research Leading to Dissertation are organized in their respective teacher education institution.
- **Interview Schedule for Heads of Departments of Education / Convener of the M.Ed. Course:** Data was collected from the Heads of Departments of Education / Convener of the M.Ed. programme to know their perceptions with regard to the organization of different components of M.Ed. Curriculum, its transaction and issues / challenges faced by them at implementation level in terms of physical facilities, faculty position, curriculum transaction and evaluation.

- **Observation Schedule:** The researcher observed the internship practices, as non-participative observant to understand how and with what objectives this component is organized in three sampled universities. This data was collected using observation schedule which focused on activities in which M.Ed. students were engaged and cooperation provided by the interning institution.

3.7.4. Data Collection Procedure

The data was personally gathered by the researcher. In the first phase the researcher collected the qualitative data from the teacher educators teaching M.Ed. students (using focussed group discussion) which was followed by semi-structured interview with the Head of Department and Convenor / In-charge of M.Ed. Programme. Quantitative data was also collected from second year M.Ed. Students and possible passes out students (through questionnaire) to know their opinion regarding relevance of the curriculum.

In the second phase, non-participatory observation was conducted by the researcher to understand with what objective Internship component and Research leading to Dissertation is organized (in four sampled universities) and how it is conducted.

3.7.5. Data Analysis

The qualitative data obtained from various data sources was analysed by triangulation. The quantitative data was analysed frequency percentage. These were then merged to obtain meaningful conclusive findings. The following table describes the detailed plan of data collection and analysis procedure.

Table 3.1. : Outline for Data Collection and Analysis

OBJECTIVES	SOURCES OF DATA (Number of Respondents)	RESEARCH TOOLS & TECHNIQUES USED	NATURE OF DATA	DATA ANALYSIS
<u>OBJECTIVE – 1</u> To study the curriculum inputs of teacher education institutions of Gujarat align with the Curriculum Framework: Two-Year	<ul style="list-style-type: none"> • Curriculum Framework: Two-Year M.Ed. Programme proposed by NCTE (2014) • Institutional Reports and Curriculum (of the institutions selected) • Government Policy documents 	Document Review	Qualitative	Document Analysis

M.Ed. Programme proposed by NCTE (2014)				
<u>OBJECTIVE – 2</u> To study the curriculum components transaction in the teacher education institutions of Gujarat in terms of Common Core Components, Specialization Branches, Internship / Field Attachment and Research Leading to Dissertation.	<ul style="list-style-type: none"> M.Ed. Students (235) Teacher educators (34) 	Questionnaire for M.Ed. students and teacher educators	Quantitative + Qualitative	Frequency Percentage + Thematic Analysis followed by triangulation
		Focussed Group Discussions with the M.Ed. students	Qualitative	
		Semi-structured Interviews with the teacher educators	Qualitative	
<u>OBJECTIVE – 3</u> To study the opinions of the M.Ed. students and teacher educators with regard to the quality of the curriculum and relevance to professional goals.	<ul style="list-style-type: none"> M.Ed. Students (235) Teacher educators (34) 	Questionnaire	Quantitative + Qualitative	Frequency Percentage + Thematic Analysis followed by triangulation
		Focussed Group Discussions + Observation (for Internship)	Qualitative	
<u>OBJECTIVE – 4</u> To study the issues and challenges in implementing M.Ed. two year curriculum in terms of physical facilities, faculty position, curriculum transaction and evaluation.	<ul style="list-style-type: none"> Head of Department of Education (9) 	Semi-structured Interview Schedule	Qualitative	Content Analysis
<u>OBJECTIVE – 5</u>	<ul style="list-style-type: none"> M.Ed. Students (235) 	Questionnaire + Focus Group Discussion	Qualitative	Content Analysis

To suggest the value addition to strengthen M.Ed. programme in the state of Gujarat.	• Teacher educators (34)	Questionnaire + Semi structured Interview	Qualitative	Content Analysis
	• Head of Department of Education (9)	Semi structured Interview	Qualitative	Content Analysis

Conclusion

This chapter is the base through which the data was collected scientifically and systematically by keeping the objectives in mind. The quantitative and qualitative data which were collected by the researcher were further analysed and interpreted. The detailed analysis and interpretation is presented in the next chapter.