

Chapter- 3 Research Methodology

Introduction

Research methodology is the cornerstone of any empirical investigation. It provides a systematic framework that guides how a study is conducted, ensuring that the results are credible, valid, and replicable. It is through the research methodology that the objectives of the study are operationalized and achieved.

The present study seeks to examine the role models chosen by pupil teachers in relation to their career preferences. This involves not only identifying who these role models are but also analyzing how the traits of the pupil teachers influence their choices. For this purpose, a structured methodological approach has been followed by descriptive techniques. This chapter outlines in detail the research methodology employed in the study. It includes the overall methodology, research design, population and sample, variables involved, tools and techniques of data collection, procedures followed during data collection, and the techniques employed for data analysis. Each of these components has been critically considered to suit the objectives of the study and to derive meaningful conclusions from the data collected.

3.2 Research Methodology

The present study is based on the quantitative research paradigm. It utilizes a descriptive survey method to assess the role model selection among pupil teachers. The descriptive approach is employed to identify and classify the types of role models chosen by the respondent and to determine the extent to which different personality traits influence the selection of particular types of role models.

The study is non-experimental in nature, as it does not involve manipulation of variables but focuses on studying naturally occurring associations. The use of standardized tools and validated questionnaires ensures objectivity, reliability, and replicability of findings. Google Forms was used for administering the tools, ensuring ease of access, higher participation rates, and digital data accuracy.

3.3 Design of the Study

The research design is a descriptive- survey design. The choice of this design is suitable for studies aiming to collect data from a large sample to explore existing patterns and relationships between variables.

The study seeks to describe:

The types of role models selected by pupil teachers.

The characteristics by considering which pupil teachers have chosen their role models.

The patterns of association between specific career influence and chosen role models.

The study was cross-sectional in nature, with data collected at one point in time from a representative sample of B.Ed.- M.Ed. students.

3.4 Population and Sample

3.4.1 Population

The population of the study includes pupil teachers enrolled in teacher education program (B.Ed.-M.Ed.) in Regional institute of Education Bhopal Madhya Pradesh. This population was chosen due to the relevance of the role model concept in teacher education and personality development, which are central components of professional identity formation among teacher trainees.

3.4.2 Sample

A stratified random sampling technique was used to ensure fair representation of different subgroups, particularly based course (B.Ed.- M.Ed.).

Total Sample Size: 60 Pupil Teacher Distribution

B.Ed.-M.Ed. Students: 60

Table 1. Demographic Characteristics of Participants

	Category	n	
Variable			
Age Group	Under 25	45	
	25–35	15	
Occupation	Student	41	
	Self-employed	4	
	Professional	6	
	Other	9	
Qualification	Master's degree	60	

3.5 Variables of the Study

Independent variable

Role Models Chosen by Pupil Teachers

- This refers to the type or category of role model selected by the pupil teachers (such as teacher, actor, political leader, parent, fictional character, etc.)
- It may also include characteristics admired in the role model (e.g., confidence, knowledge, communication skills, etc.)

Dependent variable

Career Preferences of Pupil Teachers

• This refers to the professional fields or career paths the pupil teachers aspire to (such as., teaching, civil services, performing arts, entrepreneurship, research, etc.)

3.6 Tools and Techniques of Data Collection

To gather the necessary data, a primary tool were utilized:

- 3.6.1 Role Model Identification Questionnaire (Self-Developed Tool)- This tool was developed specifically for the study and includes:
 - Personal Details of Respondent (anonymous)
 - Name or Category of Role Model
 - Characteristics admired in the role model
 - Open-ended questions: "Why do you consider this person your role model?"

The tool was validated by experts in education and psychology for content validity, clarity, and cultural relevance.

3.7 Procedure of Data Collection

The procedure followed for data collection involved several systematic steps:

- 1. Permissions and Ethical Clearance- Necessary permissions were obtained from the concerned authorities of teacher education institutions. Ethical approval was also sought from the Research Ethics Committee of RIE, Bhopal.
- 2. Pilot Testing- The self-developed Role Model Questionnaire was pilot-tested with 10 pupil teachers to refine question clarity and structure.
- **3.** Administration of Tools- Tools were administered both physically and digitally using Google Forms Instructions were clearly given in both English and Hindi for better understanding. A 30–40 minute window was provided to each participant.
- **4.** Data Recording- Responses were automatically recorded through Google Forms and exported to Excel. Any ambiguities in open-ended responses were clarified through short follow-up discussions.
- **5.** Confidentiality and Anonymity- Participants were assured that their identities would not be disclosed. Participation was entirely voluntary.
- **6.** Time Frame-The entire data collection process took three weeks, including initial briefings, tool distribution, follow-ups, and data collation.

3.8 Techniques of Data Analysis

Data analysis is a critical step in any research process as it provides the foundation for interpreting the results in light of the research objectives. In the present study, which focuses on "A Study of Role Models Chosen by Pupil Teachers in Relation to Their Career

Preferences," descriptive statistical techniques have been employed to organize, summarize, and present the data in a meaningful manner.

Descriptive analysis helps to represent the overall tendencies and patterns observed in the data, and allows the researcher to understand how the variables are distributed within the sample. The use of descriptive statistics is particularly appropriate in this study, as the objective is to identify and describe the personality traits of pupil teachers and the kinds of role models they prefer, rather than to predict or infer relationships through complex statistical methods.

The data collected through standardized and self-developed tools were processed using the following descriptive statistical methods:

3.8.1 Frequency Distribution

The first step in the data analysis involved the tabulation of frequency distributions. This technique was used to determine how often each response option was selected by the participants for various items in the questionnaire.

For the Role Model Questionnaires, frequencies were computed for:

- The types of role models chosen (e.g., teacher, parent, political leader, artist, spiritual leader, etc.)
- Traits admired in the role models (e.g., honesty, creativity, discipline, leadership, empathy)
- Career influence of role models on pupil teachers

This provided a clear and simple view of how many participants chose specific role models and what personality traits they exhibit more dominantly.

3.8.2 Percentage Analysis

Percentage analysis was used extensively to present the proportional data in a more understandable and comparable format. This allowed for an easier interpretation of:

• What percentage of pupil teachers selected a particular category of role model

Percentages were also used to describe demographic characteristics of the respondents, such as age group, gender, and educational qualification.

3.8.3 Tabular and Graphical Representation

To enhance clarity and presentation, the analysed data were organized in systematically labeled tables and visually presented using graphs and charts, such as:

- Bar Graphs showing the distribution of role models selected by pupil teachers.
- Pie Charts representing the proportion of admired traits.
- Histograms and line graphs for the personality traits distribution.

Graphical representations made the data easier to understand at a glance and served as effective tools to illustrate the findings in subsequent chapters.

3.8.6 Content Categorization (for open-ended responses)

Though primarily a quantitative study, one open-ended question in the Role Model Questionnaire invited participants to express why they chose a particular person as their role model. These qualitative responses were analysed through a basic content categorization technique:

- Recurring themes such as "inspiration", "discipline", "spiritual guidance", or "emotional support" were identified.
- Responses were grouped into broad thematic categories and then quantified.
- The number and percentage of responses in each category were then added to the descriptive analysis.

This technique enriched the numerical data with interpretative meaning and gave voice to the participants' personal choices.