

Chapter 3

Methodology

This chapter outlines the research design and procedures employed to explore teachers' and students' perceptions of code-switching in urban and semi-urban secondary schools in Bhopal, Madhya Pradesh. Methodology refers to the systematic approach and procedures adopted by a researcher to collect, analyze, and interpret data in a structured and reliable manner. It provides the foundation upon which the validity and credibility of a research study are built. In educational research, methodology is not just about the tools used for data collection, but also about the rationale for selecting those tools, the context in which the research is conducted, and the ethical considerations that guide the entire process.

This chapter presents the methodological framework adopted for the study, including the design of the research, selection of the sample, and the tools used for data collection. It also discusses the ethical safeguards put in place to ensure the protection and dignity of all participants, along with any limitations encountered during the process. By clearly outlining how the research was planned and executed, this chapter ensures transparency and helps establish the trustworthiness of the study's findings.

3.1 Method of the Study

This research adopted a qualitative exploratory method to examine the perceived advantages and disadvantages of using code-switching as a teaching strategy in Indian classrooms. The method was suitable because the goal was to understand participants' lived experiences, interpretations, and beliefs rather than test a hypothesis. Qualitative research aided in an in-depth investigation of subjective meanings and classroom practices, specifically as they relate to language, pedagogy, and identity. The research placed the responses of students and teachers at the center of analysis.

3.2 Design of the Study

The study used a qualitative, descriptive research design in urban and semi-urban areas of Bhopal, Madhya Pradesh to investigate the use of code-switching in secondary school classrooms environments. Data was collected over a period of time using multiple methods, including surveys, classroom observations, and semi-structured interviews. This multi-method approach enabled the collection of rich, contextual insights into ongoing classroom dynamics and language practices, reflecting the lived experiences of both teachers and students.

3.3 Population, Sample, and Sampling Method

3.3.1 Population

The population consisted of Secondary school students (Classes 9 to 12) enrolled in English-medium schools where Hindi and regional languages are used informally and teachers primarily teaching humanities and social sciences in these same schools.

3.3.2 Sample

The study involved 100 students and 80 teachers as participants for the procedure of data collection. Individuals were selected from various schools, guaranteeing a varied sample in terms of teaching experience, gender, and socio-linguistic background. This diversity contributed to a more comprehensive understanding of code-switching practices across varied educational contexts.

3.3.3 Sampling Method

The study employed purposive sampling, selecting schools and individuals likely to have relevant experiences with code-switching in instructional settings. The sample included both experienced and new teachers and students from different class levels to ensure varied perspectives.

3.4 Ethical Considerations and Limitations

3.4.1 Ethical Considerations

To guarantee the protection and respect of all participants ethical standards were strictly upheld throughout the duration of the study. After briefing the participants precisely on the nature and purpose of the research Informed consent was obtained compulsorily. With no names, school and personal details included in the final data set anonymity and confidentiality were rigorously maintained. No individual was forced or pressured to take part in the study, the participation was entirely voluntary.

3.4.2 Limitations of the Study

The study faced several limitations that must be acknowledged. Primarily, the participants may have provided socially desirable rather than entirely accurate responses as the reliance on self-reported questionnaires introduces the possibility of self-reporting bias. Geographically, the research was limited to schools in Bhopal, which limits the generalizability of the findings to

rural and metropolitan areas across India. The scope of these observations was limited due to time and access constraints, despite that classroom observations were conducted to complement the survey and interview data. Thus, the study may not reflect language practices in regions where other regional languages are more dominant as this study was primarily focused on English-Hindi code-switching.

3.5 Tools for Data Collection

To explore the use of code-switching as a teaching strategy in Indian classrooms, two separate but complementary Google Forms-based questionnaires were developed; one each for teachers and students. These tools were carefully constructed to gather both quantitative and qualitative data and were designed with consideration for linguistic diversity and participant accessibility. The questionnaires were made available in both English and Hindi to ensure greater clarity, inclusivity, and ease of response for participants from varied educational and linguistic backgrounds.

3.5.1 Teacher Questionnaire

The major focus of the questionnaire was on the frequency, purpose, perceived effectiveness, and limitations of code-switching in the classroom environment. It was aimed to capture the multifaceted perceptions and practices of code-switching from the educators' perspective. It included Likert-scale items to assess the frequency of code-switching in the classroom, the specific purposes for which it was used (such as clarification, classroom management, or emotional support), and its perceived effectiveness.

Additionally, open-ended questions were included to allow teachers to elaborate on the contextual reasons behind their use or avoidance of code-switching, as well as to reflect on any observed advantages or challenges. The dual-language format (English and Hindi) aimed to reduce response fatigue and misinterpretation, especially for educators who may be more comfortable expressing nuanced pedagogical ideas in their native language.

Prior to distribution, the questionnaire was reviewed by field experts to validate content relevance and was also pilot-tested with a small group of teachers to ensure clarity, internal consistency, and appropriateness of question structure.

3.5.2 Student Questionnaire

The student questionnaire was designed to investigate students' awareness and interpretations of code-switching practices in their classrooms, particularly how such practices influenced their comprehension, class participation, engagement, and language development. The questionnaire examined their awareness of code-switching, its impact on learning, participation, and language development in the classroom.

Like the teacher version, this questionnaire also featured a combination of Likert-scale and open-ended questions. The objective was to gain a well-rounded understanding of whether students found code-switching helpful in understanding lessons, whether it increased their participation, and whether it had any impact on their ability to learn or use English more confidently. The questions were framed in simple, age-appropriate language and provided in both English and Hindi to accommodate linguistic preferences and varying levels of English proficiency.

Before large-scale distribution both tools were validated through expert feedback and pilot-tested for clarity, comprehension, and consistency. A pilot test with a small group of students ensured that the questionnaire was accessible, non-intimidating, and capable of eliciting thoughtful, genuine responses. Feedback from subject experts further helped in refining the wording and sequencing of the questions for maximum effectiveness.

By using these two interlinked but audience-specific tools, the study aimed to gather rich, contextualized data on the perceived advantages and limitations of code-switching in urban secondary school classrooms in India.

3.6 Procedure of the Study

3.6.1 Tool Preparation

To align with the study's objectives the research instruments were refined and developed carefully. The tools were pilot-tested with a small group of teachers and students to ensure clarity and relevance prior to their final distribution. Additionally, to improve the language, enhance neutrality, and ensure consistency with qualitative research norms feedback from peers and field experts was incorporated.

3.6.2 Data Collection

The teacher and student questionnaires were distributed over a period of one month through in-person visits to various schools across Bhopal. For smooth administration of the forms coordination with school principals and vice principals was crucial. The questionnaires were filled efficiently, often during free periods or allocated class times, minimizing disruption to the academic schedule while encouraging active participation with their continuous support.

Within instructional settings, classroom observations were carried out to explore actual language practices and code-switching behavior alongside the questionnaires. Additionally, to get deeper qualitative insights into their experiences and perceptions structured interviews were conducted with numerous teachers and students. This comprehensive approach to data collection ensured both breadth and depth in understanding the phenomenon under study.

3.6.3 Data Analysis

The process of data analysis was meticulous and multi-phased:

Quantitative data was analyzed using descriptive statistics, gathered through closed-ended questions. This aided in the identification of common patterns and trends across the responses. To highlight variations across different demographic groups such as age, class level, and teaching experience, offering a clearer picture of how code-switching practices differed among participants the data was also tabulated.

Qualitative data was examined through thematic analysis which was obtained from open-ended responses, classroom observations and structured interviews. To identify recurrent words, ideas, and phrases the process began with initial coding. These codes were then grouped into broader themes such as comprehension, engagement, challenges, and language development. To explore similarities and differences between student and teacher perspectives, enriching the interpretive depth of the findings an inter-group comparison was conducted.

To strengthen the study's reliability and validity triangulation was employed. Themes that consistently emerged across both groups were given priority after comparing the data from both teachers and students. This cross-verification resulted in ensuring that the interpretations were well-grounded and reflective of the broader participant experience.