Chapter Three

Methodology
Chapter Three

Methodology

Language surveys can be used to answer any research questions that require exploration, description, or explanation of peoples’ characteristics, attitudes, views, and options.

Brown and Rodgers 117

3.1 Introduction

Learning and speaking English to communicate fluently and accurately will really change one’s life. Unless English is acquired in the right manner none can attain their goal. This being an issue at present, the study attempts to consider this fact with the main objective, to identify and compare if students of both CBSE and SB English medium schools have acquired the sounds of speech in English accurately and to find out which students are better in their production. The study further seeks to identify the implications of the influence and interference of Tamil in learning the English language in English medium schools. To get the possible outcome through the study, valid methods have been chosen which are posited in this chapter. This section thus describes the methods adopted for the study.

Research methodology involves a systematic process by which the research starts from the identification of the problem to its conclusions. The role of methodology is to carry out the research work in a scientific and valid manner. The manner of handling the various details of the study is extremely important to the success of the research. This chapter describes the approach of the research, sampling framework and procedure, methods of data collection and the analysis procedures to fulfill the objectives of this research. In addition to the methodology of the study, the
profile variables like the location of schools selected, the gender, the age and the like of the population are also discussed.

3.2 The Approach of the Research

The method chosen to deal with the problem of the study is an approach. Generally, there are two methods in a second language acquisition research methodology. One is the qualitative methodology and the other is the quantitative methodology. The former is “an ethnographic study in which the researchers do not set out to test hypotheses, but rather to observe what is present with their focus, and consequently the data, [is] free to vary during the course of the observation” (qtd. in Larsen-Freeman and Long 11). The latter is represented by “an experiment designed to test a hypothesis through the use of objective instruments and appropriate statistical analyses” (11). The approach adopted by the present study is the quantitative research approach. But instead of an experiment being conducted, survey method was employed. Also, hypotheses were set to test the parameters of the population using appropriate tools. According to Brown and Rodgers, “From time to time you may need to use survey in order to understand better how things are really operating in your own personal environment- in your classroom or other learning setting - or to describe the abilities, performances, and other characteristics of the learners, teachers, and administrators . . . ” (117). Moreover, quantitative research collects a huge amount of data, which can often be generalized to a larger population and allow for direct comparisons between two or more groups. It also provides statisticians with a great deal of flexibility in analyzing the results.

The cross-sectional approach is employed where the “linguistic performance of a larger number of subjects is studied, and the performance data are usually collected at only one session.” Moreover the data are elicited through some verbal
task. This approach is easily recognizable from the corresponding elements of the quantitative paradigm: “obtrusive, controlled measurements (use of artificial tasks), outcome oriented (in that it takes place at only one point of time) and generalizable (larger group of subjects)” (12). The scope of the study is narrowed to a particular set of variables to explore a particular issue i.e. acquisition of English phonology only with respect to segmental phonemes.

3.2.1 Variables

Certain dependent and independent variables were carefully chosen to enhance the feasibility and reliability of the procedure and also the outcome. This is because the primary purpose of the study is to compare if students of both CBSE and SB English medium schools have acquired the sounds of speech accurately and to find out the segment of students who are better in their production. In addition to this, the pattern of errors, and the cause behind the errors are also to be found.

3.2.1.1 Independent Variables

A variable that has some effect on the dependent variable is called an independent variable. In this research, the acquisition of phonology and the associated factors that influence acquisition are considered as independent variables. This independent variable includes the demographic, psychographic and social-economic factors. Moreover, the environment in which the student is placed plays a crucial role in the process of acquisition of phonology and is hence taken into account as a factor influencing dependent variable.

3.2.1.2 Dependent Variables

A variable which is the outcome of another variable is called a dependent variable. This variable is dependent on the independent variable. In this study, it is the phonological variables which are the dependent variables. The reason of
occurrence of this variable is dependent on other independent variables like gender, age, exposure to English language outside the class, exposure of mother tongue inside the class, methods and purpose of teaching in the classroom, background of the family, role of the teacher and the like.

3.3 Sampling Framework

This describes the procedures for selecting the sample. It includes justification for the sampling method known as sampling procedures, that is, how samples are derived from a population. The area of the study was restricted to the learners of Kanniyakumari district, the best educated district in the Indian state of Tamil Nadu ("Kanyakumari District"). The survey covered both CSBE schools and SB schools of Kanniyakumari district. In total, the district has 264 SB schools and thirteen CBSE schools. Based on a Simple Random Sampling (SRS) method eight schools of the district, out of which four CBSE schools and four SB (Government Aided English Medium) schools each, were selected in order to balance the proportion on CBSE and SB schools.

The unit of the study is the individual learner. Students of the ninth and the tenth standards alone were chosen for this study, because at the end of standard ninth and tenth a pupil is expected to understand statements, questions, short talks and passages read out to him at a careful conversational speed and ask and answer questions in speech, read with fluency (both oral and silent reading) and understand simple passages and express him/herself clearly in writing with reasonable accuracy. In addition to that high school students are the focus, hence, a mixed group is chosen from the ninth and the tenth class. The high school stage, which is selected for the study, is the last but penultimate stage of the five stages, of the twelve years of long school education. Learners are in the age group of around thirteen and seventeen, that
is, they are in the adolescent stage. Thus the population for the study is the total students of ninth and tenth class of both CBSE and SB schools. The sampling frame was the Student Register maintained at the District Headquarters of the Educational Department and the Listing available in the Office of the Chief Educational Officer, Nagercoil. Eight schools were identified (four schools each from CSBE and SB) and a total of forty-eight students were selected from a school (twenty-four students from ninth class and twenty-four students from tenth class). Thus a total of 192 students were selected from CBSE schools and 192 students from SB schools. Overall, the learners taken for the study are 384 in number each belonging to different backgrounds based on the sample size formula with a confidence interval of five percent and confidence level of ninety-five percent.

The four CBSE schools and four SB schools were randomly selected. According to Kothari, “the respondents selected should be as representative of the total population as possible in order to produce a miniature cross-section” (69). A probability sampling also known as random sampling of chance sampling is followed where “every item for the universe has an equal chance of inclusion in the sample” (73). The participants in the study were selected from a whole group by a mechanical process using a lottery method. Forty-eight students were selected from each school of whom twenty-four were boys and twenty-four were girls (twelve boys and twelve girls each) from the ninth and tenth standards. The sample population from both the genders should be equal and at the same time the size should be also small, hence this kind of selection was made. A random sampling of students was made by first defining the sample size, say either ninth or tenth class. A number was assigned (that is multiples of five or ten depending on the size of the class) to each student of the class by making use of the class attendance register. The class leader was asked to
close his/her eyes and point to a number. Thus an arbitrary number from the list was chosen. The name assigned for the selected number is read out and that student was the participant. This step was repeated till the desired sample size was reached. To achieve the level of accuracy from a large population a small percentage of students was thus surveyed.

3.4 Procedure

The procedure of the study will introduce how the data was collected based on the questions of interest. The material is presented in a step by step fashion. The study was conducted in a single phase. Data for the study were collected using the self-administered questionnaire. Eight different schools from eight different localities were visited and the study spread over three months. The students were asked to read a passage. The words were collected from the data base, transcribed and the pronunciation of the learners was analyzed (Appendix V). The phonology of the English words that were produced by the respondents was compared with the phonology of the same words in RP. The data analysis and the interpretation of the results are divided into four parts. First, overall performance of responses of the CBSE and SB school students is discussed, followed by overall production accuracy of segmental variables by CBSE and SB students and then the production accuracy of monophthongs, diphthongs and consonants is discussed in minute detail. Apart from the correct responses (CR) and wrong responses (WR) the rest of the responses are categorized as follows: non-linguistic features (NLF), avoidance (AD), reading aberrations (RA) and missing sounds (MS). They are then analysed with a scale of one to six with 1 representing Missing Sound, 2 representing Reading Aberration, 3 representing Non-Linguistic features, 4 representing Avoidance, 5 representing Wrong Response and 6 representing Correct Response.
3.5 Hypothesis Formulation

Eight hypotheses were formulated which were tentative answers to the aims and objectives of the research. Hypotheses are based on the assumptions of performance of the students in Kaniyakumari district to be proved or disproved.

3.6 Methods of Data Collection

The present study has adopted survey method which is a method of research that involves collection of data directly from a population or a sample at a particular time. This method was employed since the study required extensive planning, and rational interpretation of the findings. The primary data for this study were collected from original sources. The data have not been previously collected. The collected data served as the basic raw materials for analysis. Data were collected by conducting a structured directive test with the sources. In order to be flexible and adaptable to individual situations this method was chosen. In addition to this, the accuracy and dependability of the answers given by the respondents could also be checked.

The study was carried out during the period of September – December 2013. All the tests were conducted in the following pattern, in the same context though the timing varied.

Preparation

Introduction

Developing rapport and

Recording

3.6.1 Data Collection Instruments

The major function of designing an instrument to elicit production data is to “oblige learners to produce the item the investigator is interested in studying” (qtd.
in Larsen-freeman and Long 27). To get a natural performance from the subjects the learners were not told about the item that was to be examined.

The elicitation device used for data collection was reading aloud. This method has been used in studies researching pronunciation in a second language by Beebe and Flege in 1980 (27). Here, subjects are given either a list of words or sentences or passages which have sounds to be studied in respective environments. The performance of the subjects is recorded for later analysis. In the study, the first part of Zoya Voskresenskaya’s story “A Secret” (Appendix III) was given as the task. The corpus contains words from the passage which cover the entire forty-four sounds in their initial, medial and final positions. The study examined fifty-two words for monophthongs, thirty-eight words for diphthongs and 120 words for consonants (Appendix IV). The language teachers were also given a set of fifteen sentences to read, which included statements and questions (Appendix I). The production data was recorded using an MP3 music player. Later this was transcribed by the researcher using the International Phonetic Alphabet (IPA) symbols. The other data collection instrument used in this study was a structured questionnaire which captured the demographic, psychographic and socio-economic variables of both the students and the language teachers.

3.6.2 Devising the Questionnaire

Two sets of questionnaires were prepared, one for the English language teachers and the other for the learners. The questions aimed at obtaining information were specific and general. They were unambiguous and easy to interpret. The questionnaire (Appendix II) for the students had two sections, one was to get to know the personal information and the other one ‘Judge Yourselves’ was to evaluate the attitude of the learners in English language and its pronunciation. Learners were to
examine their own behaviour for insights in learning English. The questions were explained to the students who did not understand. This was to ensure that any limitation of their reading ability did not mask the answers. The students were given approximately twenty minutes to answer all the questions.

3.6.2.1 Personal Information

The first part of the questionnaire concentrated on personal information about the informants namely their gender and age, and also qualification, occupation and annual income of the parents and the language used at home, at school with their friends and in watching television (Appendix II). These variables were chosen because family, socio-economic status, education of the parents and knowledge of English and exposure, do play a very important role in a second language learning situation. The teachers were asked about their educational qualification, the place of education at school and college, the number of years of their experience in teaching, the strength of the class they taught and also their age (Appendix I). This is just to know the quality of the teacher, for example, if the teacher has had good schooling, she/he has a good foundation.

3.6.2.2 Closed-Ended Questions

Twelve closed-ended questions were devised and matters of specific interest were targeted for the students. Appropriate questions were framed to investigate these areas in detail, if necessary. More importantly the questions were targeted at examining the opinion of the learners, of his/her interest in learning English and how far they use the English language that they learn at present and in the future and so on (Appendix II). Twenty questions were devised for the teachers, most of them focused on the teaching of English pronunciation (Appendix I).
3.6.2.3 Measurement Scale for Questionnaire

Scaling refers to the procedure by which numbers or scores are assigned to the various degrees of opinions, attitudes and other concepts. The scale employed in the study for questionnaire for students is Likert type scale. This is generally used for getting the views, judgments, or opinions of the respondents about any of the language learning process (Brown and Rodgers 120). Each item was evaluated on the basis of how well it discriminates between those persons whose total score was high and those whose score is low. The scale consisted of a number of statements which expressed either favourable or unfavourable attitude like Strongly Agree and Strongly Disagree. The appropriate level of agreement with regard to each statement is to be marked with the numbers given from 1 to 5: 1 indicating high and 5 indicating low. The validity of the scale was established through the content validity by undertaking a systematic evaluation of how well the content represents the measurement through the brainstorming with the practitioners/stakeholders in this field. The reliability of the scale was tested through the Coefficient alpha. The scale has a score of 0.950 with the Cronbach’s alpha.

3.7 Methods of Data Analysis

Data analyses are based on the hypotheses selected for the study. It specifies the procedures for reducing and coding the data. It includes summary descriptive statistics and inferential statistical tests. Different statistical tools are used for analyzing the data.

3.7.1 Statistical Tools Applied

The basic data was analysed to understand the distribution pattern so that suitable test could be applied. In order to derive inference, hypotheses were tested to see whether the data were complying with the statements. Basic descriptive statistics
were also used to understand data patterns. Cross-tabulation was used to compare the means of variables collated through different scale items. The following tools were used to infer the data collected through the survey questionnaire.

3.7.1.1 Chi-square statistic ($\chi^2$)

Chi-square statistic is employed to assess whether or not there is any relationship or association between the row variable and the column variable that make up a Contingency table which is one of the most common ways to summarize observations of two categorical variables.

3.7.1.2 One-Sample T-Test

The t-test is based on the student’s t statistic. The t statistic assumes that the variable is normally distributed and the mean is known (or assumed to be known), and the population variance is estimated from the sample. With the assumption that the random variable X is normally distributed, and with mean $\mu$ and unknown population variance $\sigma^2$, it is estimated by the sample variance $s^2$.

3.7.1.3 Independent Sample T-Test

The independent samples t-test is used to test the null hypothesis that the means of two populations are the same, $H_0: \mu_1 = \mu_2$, when a sample of observations from each population is available. The observations made on the sample members must all be independent of each other.

3.7.1.4 Pearson Correlation

Pearson Correlation summarizes the strength of association between two metric variables. It is an index used to determine whether a linear, or straight line relationship exists between X and Y. It indicates the degree to which the variation in one variable, X is related to the variation in another variable, Y. From a sample of n observations, X and Y, the product moment correlation, $r$, can be calculated
\[ r = \frac{\sum_{i=1}^{n}(X_i - \bar{X})(Y_i - \bar{Y})}{\sqrt{\sum_{i=1}^{n}(X_i - \bar{X})^2 \sum_{i=1}^{n}(Y_i - \bar{Y})^2}} \]

\[ = \frac{\text{COV}_{xy}}{s_x s_y} \]

In these equations, \( X \) and \( Y \) denote the sample means, and \( s_x \) and \( s_y \), the standard deviation. \( \text{COV}_{xy} \), the covariance between \( X \) and \( Y \), measures the extent to which \( X \) and \( Y \) are related. The covariance may be either positive or negative. Division by \( s_x s_y \) achieves standardization, so that \( r \) varies between -1.0 and 1.0.

### 3.7.1.5 Analysis of Variance (ANOVA)

Analysis of variance is used as a test of means of two or more populations. The null hypothesis, typically, is that all means are equal. ANOVA include the following steps of identifying the dependent and independent variable, decomposing the total variation, measure of effects, test of significance and interpretation of results.

The total variation in \( Y \) denoted by \( \text{SS}_y \), can be decomposed into two components:

\[ \text{SS}_y = \text{SS}_{\text{between}} + \text{SS}_{\text{within}}, \]

where the subscripts between and within refer to the categories of \( X \). \( \text{SS}_{\text{between}} \) is the variation in \( Y \) related to the variation in the means of the categories of \( X \). It represents variation between the categories of \( X \).

The effects of \( X \) on \( Y \) are measured by \( \text{SS}_x \) because \( \text{SS}_x \) is related to the variation in the means of the categories of \( X \), the relative magnitude of \( \text{SS}_x \) increases as the differences among the means of \( Y \) in the categories of \( X \) increase. The relative magnitude of \( \text{SS}_x \) also increases as the variations in \( Y \) within the categories of \( X \) decrease. The strength of the effects of \( X \) on \( Y \) is measured as follows:

\[ \eta^2 = \frac{\text{SS}_x}{\text{SS}_y} = \frac{(\text{SS}_y - \text{SS}_{\text{error}})}{\text{SS}_y} \]

In one-way analysis of variance, the interest lies in testing the null hypothesis that the category means are equal in the population. The null hypothesis may be tested by the \( F \) statistic based on the ratio between the two estimates and that statistic follows the \( F \)
distribution. The F distribution is a probability distribution of the ratios of sample variances. It is characterized by degrees of freedom for the numerator and degrees of freedom for the denominator.

3.8 Profile of CBSE and SB Students

The demographic variables of CBSE and SB students of Kanniyakumari district are independent factors that influence the acquisition of phonology in English and therefore were considered for descriptive analysis. The broader variables like location, gender, age, income of the family, language used at home were analysed and the results are detailed in the following paragraphs.

3.8.1 Location

The location of the school has a socio-economic influence on the learning pattern which is intertwined with the local culture and environment, and the local and regional dialects in which the student is engaged during the process of acquisition. Quality education and better educational resources are factors to be considered when location is studied. Students in urban areas can make a number of choices regarding the selection of school whereas the students in rural areas cannot make such a choice. They have to utilize what is available. Hence, location was considered as one of the profile variables. The location of CBSE and SB students in Kanniyakumari district is depicted in Table 3.1.

Table 3.1 Location of CBSE and SB Students

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Location of School</th>
<th>No. of Students</th>
<th>Total No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CBSE</td>
<td>SB</td>
</tr>
<tr>
<td>1</td>
<td>Urban Area</td>
<td>96</td>
<td>48</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(50.00)</td>
<td>(25.00)</td>
</tr>
<tr>
<td>2</td>
<td>Rural Area</td>
<td>96</td>
<td>144</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(50.00)</td>
<td>(75.00)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>192</td>
<td>192</td>
</tr>
</tbody>
</table>

Source: Primary data

Note: Figure in parenthesis indicates percentage.
Table 3.1 indicates that 50 percent of the CBSE students and 25 percent of the SB students surveyed for the research are located in urban areas. Also 50 percent of the CBSE students and 75 percent of the SB students selected for the study are located in the rural areas of Kanniyakumari district. It is inferred from the analysis that there is an equal distribution of CBSE students in urban and rural areas. However, SB students are clustered around rural areas in the district.

3.8.2 Gender

The gender of the students has a direct influence on the language acquisition process and hence the same was included as a profile variable for the research. Excellence in performance in production might vary in both the genders. The opportunities that boys and girls make use of, and the opportunity that both genders get in the language class might vary. Hence, the role of gender has an effect on pronunciation. The category of gender as males and females are tabulated below.

Table 3.2 Gender of CBSE and SB Students

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Gender</th>
<th>No. of Students</th>
<th>Total No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CBSE</td>
<td>SB</td>
</tr>
<tr>
<td>1</td>
<td>Male</td>
<td>96 (50.00)</td>
<td>96 (50.00)</td>
</tr>
<tr>
<td>2</td>
<td>Female</td>
<td>96 (50.00)</td>
<td>96 (50.00)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>192</td>
<td>192</td>
</tr>
</tbody>
</table>

Source: Primary data  
Note: Figure in parenthesis indicates percentage.

Table 3.2 depicts the categorisation of gender and it can be seen that under CBSE, 50 percent of the students are males and 50 percent are females, and under SB also, 50 percent of the students are males and 50 percent are females. It is inferred from the analysis that the gender selected for the study is equally distributed across the CBSE and SB schools in Kanniyakumari district.
3.8.3 Age

The age of the students indicates the learning maturity, exposure and experience which will help in assessing the acquisition of phonology. It is believed that the younger students have advantages than older students. But sometimes older learners also perform well because of their learning ability and characteristics. Hence, the same was included as a profile variable in the research. Age was measured as a ratio scale variable and the results are depicted in Table 3.3.

Table 3.3
Age of CBSE and SB Students

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Age</th>
<th>No. of Students</th>
<th>Total No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CBSE</td>
<td>SB</td>
</tr>
<tr>
<td>1</td>
<td>13 Years</td>
<td>56</td>
<td>(29.20)</td>
</tr>
<tr>
<td>2</td>
<td>14 Years</td>
<td>64</td>
<td>(33.30)</td>
</tr>
<tr>
<td>3</td>
<td>15 Years</td>
<td>68</td>
<td>(35.40)</td>
</tr>
<tr>
<td>4</td>
<td>16 Years</td>
<td>4</td>
<td>(2.10)</td>
</tr>
<tr>
<td>5</td>
<td>17 Years</td>
<td>0</td>
<td>(0.00)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>192</td>
<td>192</td>
</tr>
</tbody>
</table>

Source: Primary data
Note: Figure in parenthesis indicates percentage.

Table 3.3 points to the distribution that 35.40 percent CBSE students are aged 15 years followed by 33.30 percent aged 14. The age distribution of SB students indicates that 52.10 percent are aged 14 years followed by 41.60 percent with 15 years. It is inferred from the analysis that on an average the age of CBSE students ranges between 13 years and 15 years. However, the average age of SB students range between 14 and 15 years in Kanniyakumari district.
3.8.4 Annual Income of Parents

The annual income of parents being an economic factor plays a critical role in creating a favourable environment for learning which in-turn facilitates language acquisition. The children of parents who hold subordinate positions in their occupations and who earn less, will be behind the students whose parents hold a high socio-economic status. Children’s skill of early language learning is supported by putting the kids to school at an early age. This could be done only by the privileged section in the society. Taking this into account the family income of the parents was considered as a profile variable. The annual income has four groups, with annual income less than ₹ 1 lakh p.a., annual income between ₹ 1 lakh and ₹ 3 lakhs p.a., annual income between ₹ 3 lakhs and ₹ 5 lakhs and annual income above ₹ 5 lakhs.

The distribution of the annual income is tabulated in Table 3.4.

**Table 3.4**

**Annual Income of Parents of Students in CBSE and SB Schools**

<table>
<thead>
<tr>
<th>Sl.No.</th>
<th>Annual Income of Parents</th>
<th>No. of Students</th>
<th>Total No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CBSE</td>
<td>SB</td>
</tr>
<tr>
<td>1</td>
<td>Less than ₹ 1 lakh p.a.</td>
<td>8</td>
<td>72</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(4.20)</td>
<td>(37.50)</td>
</tr>
<tr>
<td>2</td>
<td>₹ 1 lakhs to ₹ 3 lakhs p.a.</td>
<td>80</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(41.70)</td>
<td>(22.90)</td>
</tr>
<tr>
<td>3</td>
<td>₹ 3 lakhs to ₹ 5 lakhs p.a.</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(20.80)</td>
<td>(20.80)</td>
</tr>
<tr>
<td>4</td>
<td>Above ₹ 5 lakhs p.a.</td>
<td>64</td>
<td>36</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(33.30)</td>
<td>(18.80)</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>192</td>
<td>192</td>
</tr>
</tbody>
</table>

Source: Primary data

Note: Figure in parenthesis indicates percentage.

Table 3.4 details the annual income of the parents of the population taken for the study, which shows that 41.70 percent of the parents of CBSE students earn between ₹ 1 lakh and ₹ 3 lakhs followed by 33.30 percent earning above ₹ 5 lakhs.
About 37.50 percent of the parents of SB students earn less than ₹ 1 lakh followed by 22.90 percent of the parents earning between ₹ 1 lakh and ₹ 3 lakhs. It is inferred from the analysis that CBSE students are more affluent compared to the SB students and hence CBSE students enjoy enriched learning environment.

3.8.5 Language Spoken at Home

The language used at home by students was studied as a variable because it has direct impact on the process of acquisition of the second language. The environment at home and the impact of using English at home play an important role in language development. The more the learners converse in English at home the better the skill of using English will be, or else the children’s language skill will be worse. To know this, the grouping of language as a profile variable which includes Tamil, Malayalam and English is done. The distribution is detailed in Table 3.5.

**Table 3.5**

**Language Spoken at Home by CBSE and SB Students**

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>Language at Home</th>
<th>No. of Students</th>
<th>Total No. of Students</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>CBSE</td>
<td>SB</td>
</tr>
<tr>
<td>1</td>
<td>Tamil</td>
<td>152</td>
<td>132</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(79.10)</td>
<td>(68.80)</td>
</tr>
<tr>
<td>2</td>
<td>Malayalam</td>
<td>28</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(14.60)</td>
<td>(22.90)</td>
</tr>
<tr>
<td>3</td>
<td>English</td>
<td>12</td>
<td>16</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(6.30)</td>
<td>(8.30)</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>192</td>
<td>192</td>
</tr>
</tbody>
</table>

Source: Primary data

Note: Figure in parenthesis indicates percentage.

Table 3.5 indicates that 79.10 of the CBSE students use Tamil at home followed by 14.60 percent of the students who use Malayalam at home. Comparatively, 68.80 percent of the SB students use Tamil at home followed by
22.40 percent who use Malayalam at home. It is inferred from the analysis that only a miniscule of students use English as a language at home and this can indirectly affect the language acquisition process.

3.9 Summation

This chapter highlights the methodology adopted in the study. It gives a clear idea about the methods that are carried out in a step-by-step fashion to fulfill the objectives of the research. Quantitative research approach was the approach that was followed which tested the eight hypotheses that were formulated, using appropriate statistical tools. The data collected were generalized to a larger population and can be allowed for direct comparisons between two or more groups. Certain dependent and independent variables were carefully chosen to enhance the feasibility and reliability of the procedure and also the outcome. The sampling method used was Simple Random Sampling to identify the eight schools. The following tools were used to infer the data collected through the survey questionnaire: chi-square statistic ($\chi^2$), one sample t-test, independent sample t-test, Pearson Correlation and ANOVA. Apart from the research methodology, the profile variables taken for the study are also discussed in this chapter. The demographic factors like location of the schools, gender and age of the population, annual income of the family and language used at home by the students were also analysed. All these factors were taken into account because these factors in some way directly or indirectly influence the process of acquisition of phonology of the second language.