

## **Chapter 4**

### **The Research Design**

#### **4.1 Coimbatore - Geographical Details:**

Coimbatore is an Indian inland district in the southern part of the Peninsula. Coimbatore district is located between 10° 10' and 11° 30' N and 76° 40' and 70° 30' E in the extreme west in the state of Tamilnadu. It is situated on the banks of the river Noyyal. It is bound in the north and east by Erode district and in the west and south by the mountain ranges viz., the Western Ghats and Anaimalai Hills. To the South West of Coimbatore there is a mountain pass which is commonly known as Palghat pass in the Western Ghats. This helps the major parts of the district to benefit from the southwest monsoon. This is the third largest city and one of the most industrialized cities in the State of Tamilnadu. Coimbatore is also known as the Manchester of South India.

#### **4.2 Selection of Schools:**

The researcher first collected the list of government schools in Coimbatore. Covering the north and south zone of Coimbatore, and also considering the feasibility to conduct the study and accessibility to the locations of the schools, eight schools were shortlisted for the study. The Headmasters of six schools showed interest in permitting the researcher to conduct classes in their schools. The researcher obtained permission and proper sanction from the District's Chief Educational Officer for conducting classes in these select six government primary and middle schools in Coimbatore.

#### **4.3 List of Schools Selected for the Study:**

1. School A - Panchayat Union Middle School, Edayarpalayam (PUMSE)
2. School B - Panchayat Union Primary School, Kalveerampalayam (PUPSK)

3. School C - Panchayat Union Middle School, Vadavalli (North) (PUMSVN)
4. School D - Panchayat Union Primary School, 49 Goundampalayam (PUPSG)
5. School E - Government Primary School, Urumandampalayam (GPSU)
6. School F - Panchayat Union Middle School, Vadavalli (South) (PUMSV)

The schools selected for the study and its details are given in Table 4.

#### **4.4 Details of Samples**

In all the six schools mentioned above the Class IV learners were taken for the study. The researcher considered the Class IV students since they are neither too old nor too young for the primary level. This is the age that the students tend to explore more about whatever they come across, and show more inclination towards learning new skills. Mike Anderson (2011) believes that "...4<sup>th</sup> graders tend to have incredible energy and emotion. Their increasing awareness of others and the world around them can be both exciting and unnerving...they are still concrete thinkers and need to learn by doing; creating posters, putting on plays, writing stories, reading books, playing games, and using math manipulatives to support abstract math concepts." (33) Since Class IV students thus seemed ideal for the current study, in all the six schools class IV Regional (Tamil) medium learners were selected. The sample size of the Experimental Group and the Control Group are given in Tables 5 and 6.

#### **4.5 Control Group:**

Out of the six select schools only three schools, viz. PUPSG, PUPSK, PUMSVN, had two sections for class IV. Therefore, considering feasibility to account for the final report, Section B of class IV learners from these three schools were taken as Control Group, after consulting the respective class teachers and the Headmasters. The medium of instruction for the Control Group students was Tamil. These students were taught English language through the traditional method of teaching, during the

period of study. No special methods were used for Second language teaching for this group.

#### **4.6 Experimental Group:**

Section A of Class IV students of the three schools, viz. PUPSG, PUPSK, PUMSVN, and students of Class IV from the other three schools viz. PUMSE, PUMSV, GPSU, were taken as Experimental Group.

#### **4.7 Portfolio:**

The researcher prepared a Portfolio for every learner taken as sample for the study. The portfolio consisted of the learner's profile, the parents' responses in the questionnaire, and Pre and Posttest responses of the learner. The profile included the following details:

1. Serial No. :
2. Name of the Student :
3. School Name :
4. Father's name :
5. Father's Age :
6. Father's Educational Qualification :
7. Father's Occupation :
8. Mother's name :
9. Mother's Age :
10. Mother's Educational Qualification :
11. Mother's Occupation :

#### **4.8 Questionnaire:**

A questionnaire each was prepared for the parents and the teachers of the learners chosen for study, with the view to understanding the learners' needs, family background, their behaviour and attitudes.

<b>Schools</b>	<b>Year of Establishment</b>	<b>Medium of Instruction</b>	<b>School Type</b>	<b>Classes</b>	<b>Locality</b>	<b>Block</b>	<b>Noon Meal System</b>
PUMSE	1952	Tamil	Co-educational	From 1 to 8	Urban	P.N.Palayam	Yes
PUPSG	1942	Tamil	Co-educational	From 1 to 5	Urban	P.N.Palayam	Yes
PUPSK	1955	Tamil	Co-educational	From 1 to 5	Urban	Thondamuthur	Yes
PUMSVN	1921	Tamil	Co-educational	From 1 to 8	Urban	Thondamuthur	Yes
PUMSV	2002	Tamil	Co-educational	From 1 to 8	Urban	Thondamuthur	Yes
GPSU	1924	Tamil	Co-educational	From 1 to 5	Rural	Urumandampalayam	Yes

**Table 4 – Schools Selected for the Study**

<b>Schools</b>	<b>Class</b>	<b>Boys</b>	<b>Girls</b>	<b>Class Strength</b>
PUMSE	IV	14	45	59
PUPSG	IV (A)	13	20	33
PUPSK	IV (A)	20	28	48
PUMSVN	IV (A)	17	27	44
PUMSV	IV	9	16	25
GPSU	IV	8	9	17
<b>Total Strength</b>				226

**Table 5 – Sample Size – Experimental Group**

<b>Schools</b>	<b>Class</b>	<b>Boys</b>	<b>Girls</b>	<b>Class Strength</b>
PUPSG	IV (B)	18	13	31
PUPSK	IV (B)	8	10	18
PUMSVN	IV (B)	19	16	35
<b>Total Strength</b>				84

**Table 6 – Sample Size – Control Group**

#### 4.9 Description of the Text Book Prescribed:

The Text book prescribed for the Class IV students of the Government schools in Tamil Nadu was prepared by the State Council for Educational Research and Training (SCERT) and was published by the Textbooks and Educational Services Corporation, Chennai.

As the study was conducted during the second term (of the total three terms) of the academic year 2018-2019, the English Term-II book was used. The English Term-II book contained two Prose pieces and two Poems, each followed by a Grammar worksheet. A supplementary reading source was also provided after each prose piece. The lessons given were picture-oriented and activity-based. The following were the activities provided in the textbook:

- Match the picture with the correct word
- Say Yes or No
- Comprehension Questions
- Choose the Correct Answer
- Find Out the Meanings of the Following Words from the Dictionary
- Vocabulary Wheel
- Say Aloud
- Solve the Riddles
- Reading for Fun (A Supplementary Reading Part)
- Let Us Speak
- Let Us Write
- Creative Writing
- Let us Colour
- Note Down the Rhyming Words from the Poem

- Learning about Language
- Spot the Correct Word
- Language Skill Based Activities (LSRW)
- Letter Writing to a Friend
- Extended Activity – Project
- Grammar Worksheet – Activities Based on Grammar

#### **4.10 Need for the Pretest:**

The researcher assumed that the learners are in the A1 level of learning the second language. As mentioned in the Common European Framework, the learners, at this level,

Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. Can introduce him/herself and others and can ask and answer questions about personal details such as where he/she lives, people he/she knows and things he/she has. Can interact in a simple way provided the other person talks slowly and clearly and is prepared to help. (“Teacher’s Guide” 5).

The Pretest result showed that the learners were below the A1 level of the European Framework. Therefore the researcher included necessary remedial measures in the intervention study.

Therefore to test the learners’ language proficiency in their mother tongue as well as in English and to assess how well the learners could read and understand the given text (story, in this case), the researcher conducted a Pretest. The Pretest question paper mainly focused on the reading and understanding ability of the learners at the class IV level. The main aim of the Pretest was to understand the language

learning needs and to assess the standard of the learners so that the Second language teaching module could be prepared accordingly.

#### **4.11 Objectives of the Pretest:**

1. To assess the learners' proficiency in their mother tongue (Tamil, in this case) as well as in English.
2. To gauge the learners' ability to read and understand in Tamil and English.
3. To assess the learners' language learning needs in both the languages.
4. To understand the level of cognition of the learners in language learning.

#### **4.12 Pretest:**

The pretest was carried out during the second term of the academic year 2018-19 in the select six schools. The Pretest was conducted in both Tamil and English as the research had to elicit data to help the research, focusing on the bilingual approach, and on the learners' Listening, Speaking and Reading skills. To test the reading skill a short story in Tamil with comprehension questions was given to the learners. They were asked to write the answers after reading the complete story within the time limit of 20 minutes. Once they finished writing the answers in Tamil they were given another test sheet with a short story and comprehension questions in English, which also had the time limit of 20 minutes. The short stories in both Tamil and English were taken from the learners' Term-1 Tamil and English language books. The short story in the learners' Term-1 Tamil book has been used as it is, along with the questions given in the book. For the short story in English the researcher framed the questions, based on the Blooms' Taxonomy. In this, only the first two categories in Blooms' Taxonomy, i.e. Remembering and Understanding, were taken for framing the questions, as the learners belonged to the Primary level.

To test the Speaking Skill the learners were given an oral test in English and Tamil, wherein they were asked to speak few sentences on a given topic. In Tamil, the learners were asked to speak about their hobbies and in English, they had to speak about their favourite cartoon character. As some learners did not have television in their homes, they were asked to speak generally about their favourite game.

#### **4.13 Posttest:**

In the Posttest, the learners performed in both Tamil and English. As in the case of Pretest, in the Posttest also the learners were given short stories with comprehension questions in both Tamil and English. In addition, the learners were also given a translation of a Tamil story in English with the same set of questions. This was given to examine the effect of using the mother tongue as a scaffolding tool in learning the second language, after the Additive Bilingual Approach was implemented in classroom teaching for one full term. In the Posttest, the learners were asked to talk about their favorite food in Tamil and to talk about their best friends in English for the oral test. They were asked to speak five points in each test.

#### **4.14 Language Skills Tested in the Pretest and the Posttest:**

The Pretest and Posttest focused on the following:

1. The Reading and Speaking skills - to test the Class IV learners' ability to identify, read, and understand in their mother tongue as well as in English.
2. The learners' ability to understand vocabulary and basic sentences in both the language.
3. The oral test - to test the learners' ability to speak out their likings and about things close to their heart

#### **4.15 Teaching Module:**

A teaching module was prepared based on the Additive Bilingual Approach and Vygotsky's theories of language acquisition. The module was prepared to cover a total number of 30 classes of one and a half hours each. It was prepared after a meticulous observation of the regular classes of the class IV students in the select schools for one week. It was observed that the teachers were using lecture method for teaching. Although the students were encouraged to do chart work both in the classroom as well as at home, it was not part of their teaching-learning process. Moreover, the teachers who handled English for Class IV students in the select schools did not use English as the medium of instruction even during English period. Having all these in mind the researcher prepared the module.

The module was prepared with the view to developing the learners' Listening, Speaking, and Reading skills. The teaching method carried through various activities to develop these skills. The activities were based on Vygotsky's aspects of Socio-Cultural Theory and had incorporated Additive Bilingual Approach. For example, the learners were asked to interact with their grandparents at home and to collect details about their childhood. The learners interacted with their grandparents only in their mother tongue; then they processed the information and tried to communicate the same in English. When they were asked to present it in front of the class they tried their best to use the target language, i.e. English. The English they used was lacking in grammar but the noteworthy point is that the learners tried to transfer the knowledge they had in their mother tongue to the target language.

##### **4.15.1 Objectives of the Module:**

- To help the learners to read a text and to understand its meaning
- To encourage the learners to construct their own sentences in English

- To improve the learners' Reading comprehension in English
- To help the learners approach and learn English without any inhibition
- To enable the learners to understand the concept in the target language with the help of their mother tongue.
- To train the learners to using proper pronunciation while speaking in the target language.

These objectives were carried out through various activities in the classroom.

#### **4.16 Conclusion:**

This chapter elaborated on the research design, including the selection of the locality and the selection of schools. It described the nature of the samples taken for study, the textbook prescribe for the class IV students, and about the Control group and the Experimental group. This chapter also explained the rationale for conducting the Pretest and the Posttest. This chapter has thus provided a clear picture as to how the study was planned and carried out. The following chapter presents procedures involved in the data collection and a detailed description of the research study conducted.