

Chapter 3

ESL Cognition and Communication – Theoretical Background

3.1 Theories of Language Learning:

“Acquisition is a sub-conscious process identical in all important ways to the process children use in acquiring their first language, while Learning is a conscious process that results in knowing about language” (qtd. in Badea 91). L1 acquisition happens along with the development of a child. Linguists and Psychologists have derived many theories on L1 acquisition. Three main theoretical ideas progressed during the twentieth century. These theories progressed to explain language development: behaviourist, innatist, and interactional/developmental perspective. (Lightbown and Spada 15)

3.1.1 Behaviorism

Behaviorism, a psychological theory, was first derived by J.B. Watson. Traditional Behaviorists hypothesized that “this theory gives great importance to the environment as the source of everything the child needs to learn.” (Lightbown and Spada 15) Children imitate the language spoken around them and they attempt to reproduce it. This creates ‘positive reinforcement’ in them. During the 1940s and 1950s Behaviorism had become a prominent field in the United States and received a great trust from the educational field. B. F. Skinner in his *Verbal Behavior* (1957) stated that this theory is an explanation for language acquisition in humans:

The basic processes and relations which give verbal behavior its special characteristics are now fairly well understood. Much of the experimental work responsible for this advance has been carried out on other species,

but the results have proved to be surprisingly free of species restrictions. Recent work has shown that the methods can be extended to human behavior without serious modifications (qtd. in Wanjohi 2).

One of the major principles of Behaviorist theory is to observe stimuli and its response in human behavior and the connection between the two. Basically, “the Behaviorist theory of stimulus-response learning, particularly as developed in the operant conditioning model of Skinner, considers all learning to be the establishment of habits as a result of reinforcement and reward” (qtd. in *Behaviourist Theory on Language Learning and Acquisition 2*). This is very similar with Pavlov’s experiment that shows stimulus and response work together. Thus children learn to utter different sounds that are similar to the words they hear from their environment. They will be rewarded every time they utter a sound that resembles an appropriate word used by the adults. This reward motivates them for further articulation of same sort and to move towards grouping of syllables and words in a similar situation. Gradually this speech will be internalized and will become more similar to the adult’s speech. This denotes that Behaviorism is a theory of Stimulus-Response psychology.

3.1.1.1 Principles of Behaviorist Theory

1. Behaviorist theory primarily focuses on spoken language. Speech is the only form for many languages that do not have written scripts. The theory therefore gives more importance to the oral form as Reading and Writing come later in the process of learning a language. Therefore this theory insists on teaching Speaking.

2. Behaviorist theory is a theory of habit formation. It deals with language teaching and learning, especially learning of structural grammar. Language learning concerns us by “not problem-solving but the information and performance of habits.” (qtd. in. *Behaviourist Theory on Language Learning and Acquisition* 3) Language learning is considered as a mechanical process that leads the learners to habit formation. It is controlled by the learner’s behavior and its outcome.
3. It is a theory of stimulus response psychology. Each stimulus results with a response and each response initiates a stimulus and this process goes on.
4. According to this theory habits will be established based on the reinforcement and reward. For each stimulus there will be a response, and a positive response will be reinforced by rewards and a negative response will be reprimanded. Habit formation is established When response to stimuli is consistently reinforced then the.
5. Every individual will learn equally when the socially-conditioned nature can be the same for all. (3)

3.1.1.2 Limitations of Behaviorist Theory

1. Behaviorist theory is advanced in part as a reflection to traditional grammar. Not all the time children imitate adults. At times they over-apply the grammar rules in their speech. The most common mistakes children commit is something akin to saying “drinked” instead of “drank”. This is because they presume that all the past tense forms will end with either /d/ or /t/. Since children at the early stage are

unaware of the irregular verbs in English they commit this mistake. This is often referred to as “intelligent mistakes or virtuous errors”

2. Most of the children acquire language through the same stages. Except few cases the development sequence are largely unaffected by the society in which he/she grows up.

Children often find it very difficult to imitate what the adults say. Especially in cases where the children have not yet started using the structure that the adults use.

3. Few children are given more overt grammatical correction as the parents concentrate more on politeness. (Wanjohi 3)
4. For language acquisition, there are various evidences that prove the critical period hypothesis which says children cannot catch up language after seven.

3.1.2 Innateness Theory

Noam Chomsky, a prominent figure in the field of linguistics, in his criticism of B.F. Skinner’s book *Verbal Behavior* published in 1959, confronted the very idea of Behaviorist aspect of language acquisition. According to him, human beings are biologically endowed with language. Just like every other biological development they develop language too. His idea incorporates linguistic and psychological aspect of language acquisition. Lightbown and Spada pointed out in their book *How Languages are Learned*, Chomsky’s hypothesis of innatist perspective as “all human languages are based on some innate universal principles.” (20)

Chomsky and Eric Lenneberg had argued over this idea for fifty years that children are born with the innate ability which is language-specific that makes them

acquire the language easily. Chomsky hypothesized that the universal grammar is innate and underlies in all human languages (Mehrpour and Forutan 32). With the support of UG a child could interpret what it hears. This natural sense is known as Language Acquisition Device (LAD). According to Chomsky all human languages share common rules. The child's duty is to instigate how the specific language that he/she hears conveys these rules. For example, LAD incorporates the verbal tense. In the beginning, "by listening to such forms as "worked", "played" and "patted", the child will form the hypothesis that the past tense of verbs is formed by adding the sound /d/, /t/, or /id/ to the base form. This, in turn, will lead to the "virtuous errors" mentioned above." Chomsky states that LAD contains "specific knowledge about language." (Wanjohi 4)

3.1.2.1 Critical Period Hypothesis

Chomsky's idea is often linked to the Critical Period Hypothesis (CPH). CPH suggests that "animals, including humans, are genetically programmed to acquire certain kinds of knowledge and skills at specific times in life." (Lightbown and Spada 22) As indicated by this idea a child cannot acquire skills beyond those "critical period". It is either difficult or impossible to learn those skills or abilities. With regard to language, CPH intends that children who are not given proper access to language or who fail to learn language in their infancy and early childhood will never acquire language. (22)

3.1.2.2 Limitations of Innateness:

1. Chomsky's Innateness theory is more theoretical rather experimental. "He did not study real children". (Wanjohi6)
2. Most of his work focuses on complex explanation of grammar rules.

3. Although this theory is based on children it does not focus on the interaction between them.
4. This theory did not speak of the functions of language. (Wanjohi 4-5)
5. Dan Isaac Slobin suggested that it is something more like a mechanism for working out the rules of language:

It seems to me that the child is born not with a set of linguistic categories but with some sort of process mechanism - a set of procedures and inference rules, if you will - that he uses to process linguistic data. These mechanisms are such that, applying them to the input data, the child ends up with something which is a member of the class of human languages. The linguistic universals, then, are the *result* of an innate cognitive competence rather than the content of such a competence. (wanjohi 4-5)

3.1.3 Interactionist/Developmental Perspective

In contrast to Chomsky's view, the Developmental and Cognitive psychologists spotlight on the interaction between children and the environment in which they grow. They argue that the Innatists emphasize more on the 'final stage' rather than the developmental stages of language acquisition. Psychologists give significantly more importance to the environment than the Innatists do. They consider language acquisition in relation to the other skills and knowledge and not something different from the child's experience and cognitive development. Dan Slobin (1973) put emphasis on the close relationship between children's cognitive development and their language acquisition. According to him children's cognitive development is deeply rooted in their "semantic

intentions”. Children who are familiar with the general structure and the function of the language make active attempts to understand the speech by finding the means for the expressions of those intentions (Slobin 208). “As in all of cognitive development, the acquisition process involves the assimilation ..., and the accommodation...” (208). Yet the child’s inner linguistic structure changes according to the child’s age “as computation and storage space increases, as increasing understanding of linguistic intentions leads the child into realms of new formal complexity and as internal structures are interrelated and re-organized in accordance with general principles of cognitive organizations” (208)

3.1.4 Piaget’s Stage Development

Jean Piaget, a Swiss Psychologist/ Epistemologist, held a view that children’s language is built on their cognitive development. Based on his observation of children, in their interaction with objects and people, Piaget derived his stage development theory. According to him children’s development comes to pass through four stages: sensorimotor, preoperational, concrete operational and formal operational.

3.1.4.1 Sensorimotor

This period is from birth to age two. During this period a child recognizes object permanence i.e. to find an object even after it is displaced. For example, at this stage, Piaget’s experiment was to find if a child could locate an object that is hidden under the pillow. Another feature of children at this stage is their ability to link a number to objects.

3.1.4.2 Preoperational

This period is between two and seven years. During this period, children develop “language ability (with over-generalizations), symbolic thought, egocentric perspective

and limited logic.” (Ojose 27). Children, at this age, can associate two different objects but they cannot understand others’ point of view and they cannot reverse a process. For example, they can add four plus five as nine but cannot reverse the process (27). Also children’s perception is limited to one aspect of an object. For example, in the case of two similar containers filled with the same amount of liquid, when the liquid from one container is transferred to a bigger container the volume still remains the same. But children at this stage think that this bigger container consists of less amount of water. The children tend to use one aspect, height, as the unit to judge the other.

3.1.4.3 Concrete Operational

Children at this stage can understand others’ point of view. Also they develop broader perception of objects. At this stage children can understand better the liquid experiment mentioned above. While noticing the level of water in the small container they also observe that the container is wider. Children are capable of doing both seriation and classification during this stage. Seriation is the ability to arrange objects according to their shape, structure and size. Classification is grouping objects based on its similar characteristics. (Ojose 27)

3.1.4.4 Formal Operational

Reasoning skills were found to develop among children at this stage, i.e. from age twelve and above. Children at this stage have mental processes like generalization and evaluation of logical arguments and they include clarification, inference, evaluation and application.

3.1.4.5 Limitations of Piaget's Stage Development

1. Piaget, in his Stage Development Theory, failed to include the uneven development of children's cognition. (Genovese 128)
2. Piaget's theory is strongly criticized for its underestimation of young children's ability. (128)
3. In his theory he pointed out that the formal operation stage would begin at the adolescence. Yet not all children develop at the same pace. (128)
4. Piaget has also been criticized for his overestimation of the older learner's ability. For example "middle school teachers interpreting Piaget's work may assume that their students can always think logically in the abstract, yet this is often not the case." (qtd. in Ojose 28-29)
5. His theory provides more insights on how children learn mathematical concepts and ideas. (26) And so it cannot be taken into consideration for language acquisition.

3.1.5 Vygotsky's Social Development Theory

The French Psychologist Vygotsky built up his Social Development Theory based on Marxist theory. Vygotsky, in his book *Mind in Society*, has taken Engels' concept of 'human labour and tool use as the means by which man changes nature and, in so doing, transforms himself' as a key point to his theory (7). He was the first one to relate this concept of sign and tool system to the human - environment interaction. Thus for him, the development of individual is entrenched in the culture and society (7).

The following are the three major principles that come under Vygotsky's Social Development Theory:

- Social interaction plays a crucial role in cognitive development in relation to what is learnt, when and how.
- The potential for cognitive development is limited to a time span
- In a learning environment the process of learning is the result of learning rather than the product (Lutz and Huitt 5).

Vygotsky's Social Development Theory deals with social constructivism and language development through social interaction, culture, zone of proximal development and inner speech (5). His work uses **Social Interaction** as a framework for all learning and development. The interaction between an adult and a child is given primary importance as it transmits the culture from one generation to the other. Also it helps a person "to get along with a wide variety of people of different backgrounds, ethnicity, personalities etc" (10)

According to Vygotsky, "each person has an individual range of potential for learning", which he refers to as **Zone of Proximal Development** (6). It is defined as:

The distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. (Vygotsky, "Mind" 86)

This zone shows that at any point in development three levels of ability are possible:

- 1) a person can do without any guidance
- 2) a person cannot do even if guidance is provided and

3) a person can do with guidance. (Lutz and Huitt 6)

This concept is completely different from stage developmental theories as there is no final destination or developmental stage. Jerome Bruner's constructivism includes many aspects from the previous theories. His theory contains the "Piagetian notion that cognitive development occurs in progressive stages and that each stage is incorporated and built upon by succeeding stages." (6) His idea can also be linked to the information processing model in which he suggests that development occurs through interaction and experience: "learners construct new ideas or concepts based upon their current/past knowledge. The learner selects and transforms information, constructs hypotheses, and makes decisions, relying on a cognitive structure to do so." (qtd. in Lutz and Huitt 7) Moreover Bruner is concerned with the role of culture on cognitive development.

Another key concept introduced by Bruner was the concept of **Scaffolding**. However the term "scaffolding" was first used by Wood et al. when they described "how tutors interacted with preschoolers to help them solve a block reconstruction problem." (qtd. in Ueno and Miyazawa 1) This is very similar to Vygotsky's notion of Zone of Proximal Development. Like Vygotsky described in ZPD, Scaffolding entails a structural guidance from the adult to the child for helping him/her to achieve a particular goal. It helps the child to concentrate on the difficult skill that he/she needs to acquire (McLeod "Bruner" 4)

3.2 Learning and Acquisition:

In Stephen Krashen's *Principles and Practice in Second Language Acquisition*, the term acquisition in second language learning refers to a "subconscious process," which is similar to the way children develop abilities in their first language. And the

result of this acquired competence is also subconscious. In other words, acquisition in non- technical language is nothing but “picking-up” the language. On the other hand, learning denotes “conscious knowledge of a second language, knowing the rules, being aware of them, and being able to talk about them.” In non-technical terms, learning is “formal knowledge of the language or explicit learning” (10)

Learning	Acquisition
Conscious process	Subconscious process
Knowing the rules	Picking up the learning
Results in accuracy	Results in accuracy and fluency
Formal, traditional teaching helps	Formal, traditional teaching does not helps
Available for correction	Available for Automatic production

Table 2 Learning/Acquisition Differences (Abukhattala 128)

3.2.1 Krashen and his Stances

Krashen’s theory of Second Language Acquisition shows the distinction between language learning and language acquisition. He introduced his ‘Monitor Model’ in the early 1970s. This theory deals with the process of language acquisition and he designed this model based on five hypotheses viz. Learning/Acquisition Distinction Hypothesis, The Natural Order Hypothesis, The Monitor Hypothesis, The Input Hypothesis, and The Affective Filter Hypothesis.

3.2.1.1 Natural Order Hypothesis

This hypothesis presumes that the learners acquire the grammatical structures of the target language in a predictable order. Though not all learners follow the same order

Krashen in his theory derived so. Also the opposite of this hypothesis is proven true many times.

3.2.1.2 The Monitor Hypothesis

This model hypothesizes that the learner uses the acquired knowledge while engaging in a conversation, while learnt knowledge of the language will help as a monitor to make corrections before delivering it. Figure.1 shows this process

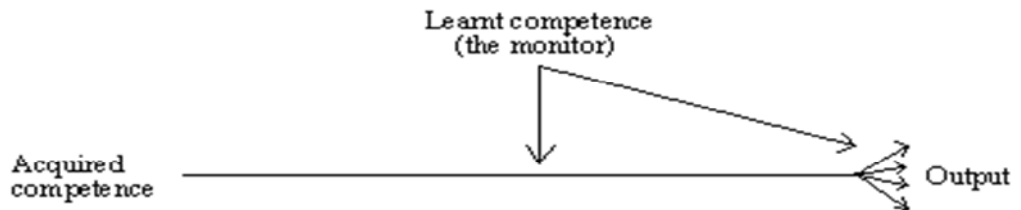


Fig. 3. Acquisition and Learning in Second Language Production (Krashen, “Principles”, 16)

This process takes place not in a daily use of language or in a spontaneous talk yet when the speaker has properly learnt the rules of the language and he/she has much time to recollect the rules and make corrections before speaking or writing it. (Krashen, “Input”, 80)

3.2.1.3 The Input Hypothesis

This hypothesis shows that acquisition occurs when comprehension of input happens along with $i+1$ through contextual and extra linguistic information. The ‘i’ indicates the current level of competence and ‘+1’ indicates the next level of competence. According to Gregg, the “acquisition occurs through extra linguistic information is probably false.” (Zafar 143) He pointed out that in such case the learner would do guess work and that guess work cannot lead to acquisition.

3.2.1.4 The Affective Filter Hypothesis

This hypothesis states that the affective filter prevents the learner to take the comprehensible input completely and so he/she cannot successfully attain competence.

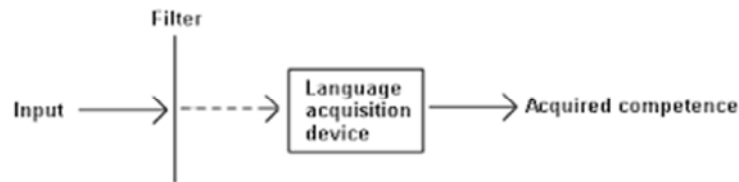


Fig. 4. Operation of the Affective Filter (Krashen, “Principles”32)

The affective filter refers to the learners’ tension, anxiety, bored feeling or negative attitudes towards learning which will eventually lead to poor learning outcomes.

3.2.2 Criticisms on Krashen’s Model

1. Krashen’s hypotheses are not possible to test in empirical research. (Zafar, Manmay 143)
2. It is doubted that “his ideas about second language development were influential during a period when second language teaching was in transition from structure-based approaches that emphasized learning rules or memorizing dialogues, to approaches that emphasized using language with a focus on meaning.”
(Lightbown and Spada 107)
3. Krashen failed to define the terms and its nature like “comprehensible input” and “affective filter” in his model and also he never explained how to measure them and what are the tools required to assess them. (Zafar 143)

3.2.2.1 ZPD ≠ i+1:

Many researchers had attempted to discover the similarities and dissimilarities between Krashen’s input theory and Vygotsky’s ZPD. They suppose that these two

concepts have no similarities between each other in a way that would be productive for SLA. Dunn and Lantolf argued that having assumed that the concept of $i+1$ is an equivalent to the concept of ZPD is fragile and also they are from two different theoretical domains which have no common elements to be shared. Krashen's construct of $i+1$ proposes that acquisition can be possible when extra linguistic input (+1) will be provided to the already existing competence (i). Also it amalgamates the field of learner (i) and the input (+1). On the other hand Vygotsky's Zone of Proximal development refers to those functions that have not yet matured but are in the process of maturation (Vygotsky, "Mind", 87) Krashen's theory aims at the product as it focuses on acquisition through extra linguistic input whereas Vygotsky's ZPD deals with the process.

3.3 Constructivism:

Constructivism is a learning theory found in the field of Psychology. It explains how people acquire knowledge and learn. The central idea of Constructivism is that "human learning is *constructed* that learners build new knowledge upon the foundation of previous learning" (Olusegun 67) There are two important notions that surround the idea of constructivist learning environment:

- Learning is active rather than passive.
- Learners construct new understandings using what they already know (67).

The first notion provides the understanding that there is no concept of *tabula rasa*. In the learning environment learners use the knowledge they have already gained through an experience and this prior knowledge influences the new knowledge constructed from new learning experience. (67) The second notion implies that learners "remain active throughout this process: they apply current understandings, note relevant elements in new

learning experiences, judge the consistency of prior and emerging knowledge, and based on that judgment, they can modify knowledge” (67).

According to Chung, the following are the four basic constructivist teaching strategies. These are to be incorporated while implementing the above mentioned notions of constructivist learning environment in a classroom:

- 1) Knowledge will be shared between teachers and students
- 2) Teachers and students will share authority
- 3) The teacher’s role is one of a facilitator or guide
- 4) Learning groups will consist of small numbers of heterogeneous students (17).

Constructivism can be broadly divided into two: i) Cognitive or individual constructivism based on Piaget’s theory and ii) Social Constructivism based on Vygotsky’s theory. Both these theories share certain common notions like, the learners construct their own knowledge, teachers act as facilitators and guided learning or assistance in learning is considered necessary. Both the theories encourage the learners to create their own understanding of the concepts through elicitation. John Dewey, a Progressive educator, made this method popular in America during the twentieth century. “Inquiry learning is an approach in which the teacher presents a puzzling situation and students solve the problem by gathering data and testing the conclusion. John Dewey described the basic inquiry learning format in 1910 and many theorists have emphasized different forms.” (qtd. in Powell and Kalina 245-46) On the other hand, Piaget’s theory heavily relied on individual ability and how individuals construct knowledge; whereas, Vygotsky believed that various factors such as social interaction, culture, language and

guided teaching affect an individual's constructed knowledge (Powell and Kalina 241-250).

3.3.1 Cognitive Constructivism

Cognitive constructivism comes directly from Jean Piaget (1951), whose theory can be viewed broadly as: 1) theory of adaptation and the process of using cognitive schemes and 2) theory of cognitive developmental stages (Luitz and Huitt 2).

The first aspect of Piaget's theory is based on the fact that "individuals are born with reflexes that allow them to interact with the environment. These reflexes are quickly replaced by constructed mental schemes or structures that allow them to interact with, and adapt to, the environment." (Lutz and Huitt 2). This adaptation occurs in two different ways: *assimilation* and *accommodation*. According to him "children's schemas are constructed through the process of assimilation and accommodation, when going through four different stages of development" (Powell and Kalina 242). While going through the process of assimilation and accommodation individuals construct new knowledge from their experiences. 'Assimilation' happens "when children bring in new knowledge to their own schemas" and 'accommodation' is a process of changing their schemas to "accommodate" the new information or knowledge (242).

The second aspect reflects Piaget's stage development theory that deals with four stages of development. In his view, children's development passes through these stages: Sensorimotor, Preoperational, Concrete Operational and Formal Operational. Piaget asserts that every child's physical and cognitive development passes and processes through these four stages. Piaget's theory "does not always capture the combined and uneven development of children's cognition" (Genovese 2) Also he underestimated the

capacities of infants and overestimated the capacities of the older learners (Ojose 28). If this notion is true all learners in a group at a particular stage can perform equally well. However this is not the case in the practical classroom. For this reason, Piaget's stage developmental theory could not be considered as a feasible approach. On the other hand, "Vygotsky's theory of social constructivism, as opposed to Piaget's individualistic approach to constructivism, emphasizes the interaction of learners with others in cognitive development." (Tam 52)

3.3.2 Social Constructivism

Social constructivism enables learners to construct language and ideas through interaction with the teacher and other students. "All of Vygotsky's research and theories are collectively involved in social constructivism and language development such as cognitive dialogue, the zone of proximal development, social interaction, culture and inner speech." (qtd. in Powell and Kalina 243) According to Vygotsky, social interaction and culture-oriented activities are necessary for proper psychological development. People with more knowledge than the learners must also involve in these activities. Therefore, in the social constructivist environment, the learners experience their level of understanding and get assistance to move to the next level. (246)

3.4 Vygotsky and Cognitive Development:

According to Vygotsky, cognitive development is rooted in the social interaction "from guided learning with the zone of proximal development as children and their partner's co-construct knowledge" (McLeod "Lev Vygotsky" 2) Also he mentioned that children's thinking will be influenced by the environment that they live in. On the other hand, Piaget's theory pointed out that children independently construct their own

knowledge. For him, language development depends on thought i.e. “thought comes before language” (2) Yet Vygotsky’s notion demonstrates that thought and language are different entities and they develop separately from the beginning of life. Later these two systems merge at around the age of three to produce the verbal thought i.e. inner speech.

3.5 Additive Bilingual Approach:

Learning English as a second language in a multi-cultured, multi-lingual nation like India is not an easy task. Though the three language formula was implemented by the National Policy of Education in 1986 it had not been implemented properly throughout the nation. Therefore in many schools in India only the regional language is the medium of instruction. The regional language has been taught as the first language and English as the second language. In this setting the learners have no chance of using English outside the classroom. Moreover, in many schools in India, English has been being taught not as a language but as a subject. It is in this scenario the Additive Bilingual Approach could be considered as an appropriate method of teaching English.

Additive Bilingual Approach helps the learners to learn the target language while maintaining their mother tongue. It also helps them to learn through dual medium of instruction. When we talk about dual medium of instruction it sounds quite similar to the Grammar Translation (GT) Method. Richards and Rodgers stated that “Grammar Translation is a way of studying a language that approaches the language first through detailed analysis of its grammar rules, followed by application of this knowledge to the task of translating sentences and text into and out of the target language” (6) Also in most of the GT texts the syllabus focused mainly on the grammatical units and so grammar

was taught in a systematic way. This method imposed much emphasis only on reading and writing and very little or no importance was given to listening and speaking skills (6)

In contrast to this, Additive Bilingual Approach paves way for using the target language for communicative purposes. It provides the learners with circumstances to listen to the target language as well as to practice it inside the classroom. In Additive Bilingual Approach the instructor uses the target language (L2) yet the mother tongue would also be used when it is needed, depending on the learners' understanding of the instructions as well as the concepts. This introduces the learners to listen to the usage of target language in the classroom environment.

3.6 Rationale for Using Additive Bilingual Approach:

Additive Bilingual Approach aims at using a second language (L2) for teaching without affecting the first (L1). Having considered the social background of the learners the current study adopted this approach for teaching English to the Class Four learners in select government schools in Coimbatore.

The objectives for applying this approach:

- To make them familiar with the L2.
 - Learners would get a chance to listen to the L2 as they would be taught through the L2 along with the L1.
 - The tutor would interact in the L2 with the learners while maintaining the L1.
- To enable them to learn an L2 without losing the L1.
 - Overt support will be given to the L1 though the teaching focuses on the L2.

- Learners are permitted to use the L1 for expressing their opinion.
- To motivate them to learn the L2
 - Learners would be encouraged to share their ideas
 - Learners would be permitted to code mix when they speak.
- To help the learners understand the target language through their mother tongue.
 - Instructions will be given both in the mother tongue (L1) and in the target language (L2) in order to make the learners understand them and to follow them appropriately.
- To motivate them to use the language.
 - Learners would be guided through and they would also be encouraged to ask questions in the classroom.
 - Learners would be encouraged to perform in the activities using the L2.

Additive Bilingual Approach has an additional scope for incorporating Vygotsky's notions like human mediation, social interaction, and scaffolding in teaching English which helps the learners to pick up the language easily. This approach aims at teaching language through interaction. This is why Vygotsky's theory has been adopted in the current study.

3.7 Factors that affect SLA in the ESL Classroom:

There are various factors that affect the process of teaching and learning of English. One of the major factors is the learners' family background and the learning environment. For example, in India, a great majority of the students come from economically backward classes and their parents have a poor educational background. Most of the families have no adequate income, the fact that forces the parents either

unable to afford a good education for their children or to become disinterested in giving a formal education to their children. This not only disorients the children but also discourages them from attending school.

Secondly, in most of the rural areas in India English is taught through the native or vernacular language, wherein English language class appears to be L1 class rather than L2 class. The learners from rural areas face a lot of problems in learning English as they do not have an opportunity to speak and learn the language in their setting; lack of exposure to the target language results with poor learning outcome. As compared to the learners from rural area, the learners who come from the urban area could easily learn the language as most of their parents are educated. So their domestic environment helps them to pick up the language quickly. The first category students i.e. students from the rural area, could score marks in the examination yet they could not use the language for real life purposes. However, the second category students join in the English medium schools as their parents are educated and hence they could easily pursue their higher education.

Thirdly, the classrooms in rural parts of India are considerably large and therefore individual attention becomes difficult. The teachers in the large classrooms find it difficult to handle the students. The classroom management becomes a herculean task as a result the teachers are not able to teach well. In a two day conference held at the Regional Institute of Education, Mysore, on 24th and 25th of December 2018, a teacher from a government school shared his experience, that every time he attempts a different technique to handle the large class, his colleagues showed their dislike towards him and created problems. Factors like these and many more hugely discourage the teachers and prevent them from taking efforts to teach in a large class.

Fourthly, the teachers are less-trained and are often less-qualified to attend workshops and seminars to improve themselves with new language teaching methods. Another reason is that English language is not the language of communication in rural areas. Particularly in rural schools, owing to lack of qualified teachers, English is taught by other subject teachers, who tend to teach English merely as a subject. As a result, even after learning English for twelve school years the language learners are not able to use grammatically correct English.

Fifthly, most of the learners from rural areas find it difficult to learn English. There is no help from their parents' end owing to their illiteracy or inadequate educational background. "The reason for this is that they study subjects from the examination point of view. Our examination system is such that it makes students' rote memorization rather than testing their analytical and creative skills. In this process, they memorize lessons, reproduce them in exam halls and forget them the same day itself" (Roy 2)

Most importantly in India, in many language classes, teachers use lecture method wherein the teachers' talk time is more than that of the learners'. The class is made to passively listen to the teacher and is not encouraged to ask questions. Pair work, group activity, and role play are rare. Consequently the learners end up with poor English and are not able to write in acceptable English on their own. They cannot speak English appropriately and fluently. And fairly predictably they cannot follow a conversation in English. This is because teaching of English has been text-based in India since the colonial times as "the British Government's policy was to create a class of Indians who

would act as a buffer between the British and the Indians. Therefore, elementary knowledge of English was needed for a class of Indians.” (Roy 2)

3.8 L1 as a Scaffolding Device in L2 Learning:

The actual process of learning happens through assimilation and accommodation. When a learner is introduced to a new problem or learning he/she would first relate it to their previous/ already existing knowledge. During this process the already existing cognitive structure provides meaning to the learners i.e. the already existing knowledge from the L1 would provide the meaning to understand a word/concept in the L2 which the learner learns through a new experience.

Bruner introduced the concept of scaffolding, a process of supportive dialogue, by which adults/teachers/peers give assistance to a learner to perform an event/task which is beyond the learner’s ability. Pathak mentioned that the process of scaffolding, in one sense, allows assimilation and accommodation to happen and made possible by placing the activity within the learner’s Zone of Proximal Development (23). Therefore by employing the *scaffolding technique* in L2 teaching, the researcher manipulates the L1, which is considered as known/familiar knowledge, to assist the learners to understand the unknown/unfamiliar concept.

3.9 Vygotsky and Additive Bilingual Approach in the ESL Classroom:

Challenges for English teachers are enormous in India, especially in rural areas. Most of the rural schools have teachers that have no or inadequate knowledge of English to teach the learners. The use of English in the classroom is nil. Thus the learners are deprived of a complete exposure to the language. This scenario is what ensures a positive ground to this study to use Additive Bilingual Approach to teach English as a Second

language in India. Through group activities and role play the learners should be encouraged to use the language inside the classroom. This would help them to practice speaking English. Complementarily, Vygotsky's social interaction could be employed inside the classroom through peer interaction, interaction between the learners and the tutor or seniors or adults. This aspect provides more opportunity to practice English in oral form. During the activity the tutor assists the learners either by eliciting response from them or by allowing them to take assistance from their friends.

Though there are various learning theories the current research adopts Vygotsky's theory considering its feasibility to the Indian ESL learning scenario. The samples selected for the study were from the rural parts of Coimbatore, a city in Tamilnadu, a South Indian State. The parents of most of the learners have only had their school education. Many of the parents were found illiterate. Only few parents have had either diploma or degree. Most of the learners could not get guidance from their parents. They could learn English only in their school, from their teacher. In this situation one cannot simply use direct method or any other method that demands using only English in the classroom, because the learners cannot understand it. This is why Additive Bilingual Approach has been adopted for the study. In Additive Bilingual Approach though the tutor uses English as the medium of instructions the learners' mother tongue will also be used as a scaffolding tool in teaching English. The concept of scaffolding is an expansion of Vygotsky's Zone of Proximal Development. Wood et. al, define scaffolding as a process "that enables a child or novice to solve a task or achieve a goal that would be beyond his unassisted efforts" (90) Also they mention that scaffolding needs the adults "controlling those elements of the task that are initially beyond the learners' capability,

thus permitting him to concentrate upon and complete only those elements that are within his range of competence” (90)

3.10 Vygotsky’s Social Constructivism in the ESL Context:

The Indian society at large is known for its ethnic and cultural diversity. The Indian classrooms invariably represent this diversity. The issue of the influence of culture in language learning especially has always been an inseparable one as language learning cannot be separated from the cultural context. Vygotsky in his theory has attempted to reorient this issue from individualistic to socio-cultural aspect.

The contemporary education became aware of the need for cognitive education in a multicultural classroom. “From a Vygotskian point of view the essence of cognitive education lies in providing learners with new psychological tools that can shape either general or more domain-specific cognitive functions”. (Kozulin et al. 16) For a long time, children were expected to acquire more knowledge and they were considered as empty vessels that must be filled with knowledge by the teacher. In the traditional method of teaching “the child proved to be much more than a passive recipient of information; on the other hand, independent exploration often led to the acquisition of immature concepts and neglect of important school skills” (16) As a result acquisition model transformed into a mediation model which includes scaffolding, apprenticeship and organization of learning activities (17).

Mediation happens through two possible ways: the human mediator and symbolic mediation. The human mediator is identified in Vygotsky’s theory as per the notion that the child’s each psychological function happens twice in development, once in the actual interaction between the child and the adult and the second in the internalization of the

function. For example, in the interaction between a two and a half year old child and the tutor or the mother while performing the task of fixing blocks, the child will receive directions from the tutor in the beginning of the task as to how to fix the blocks correctly. Gradually the child's verbalization progresses from receiving direction from the tutor to self-direction for fixing the block. (Kozulin et al. 19) Vygotsky's notion of ZPD "was a transfer of the function of model use from the child's ZPD to the zone of the child's actual development." (19) With regards to symbolic mediation, "Vygotsky's theory made an important distinction between experiences produced by the immediate contact of the individual with environmental stimuli and experiences shaped by interactions mediated by symbolic tools" (23) The most ancient symbolic tools pointed out by Vygotsky were "counting fingers, tying knots and casting lots" ("Mind", 127) Counting fingers is considered as one of the ancient methods that proposes the mode of using fingers, which can serve as a symbolic tool that organizes cognitive functions as well as arithmetic operations. Tying knot acts as a reminder for doing an action. It retrieves information from the memory. Casting lots refers to an individual's way of linking his/her decision to resolving a problem by employing an artificial tool as it cannot be resolved in a natural way. (127)

The level of actual development refers to the *independent level* and it includes skills that are already mastered by a child and can perform independently (Lui 3). The instructions given at this level would not be much challenging to the child. The Zone of Proximal Development refers to the gap between the actual development and the potential development. At this level the child should obtain some learning gains through the instructions provided. The level of potential development refers to an action, function

or skill, which the child could not acquire independently but could make it under an adult guidance or in collaboration with the more competent peers. Also teaching should be ignored otherwise it would not be resulted in effective learning (3).

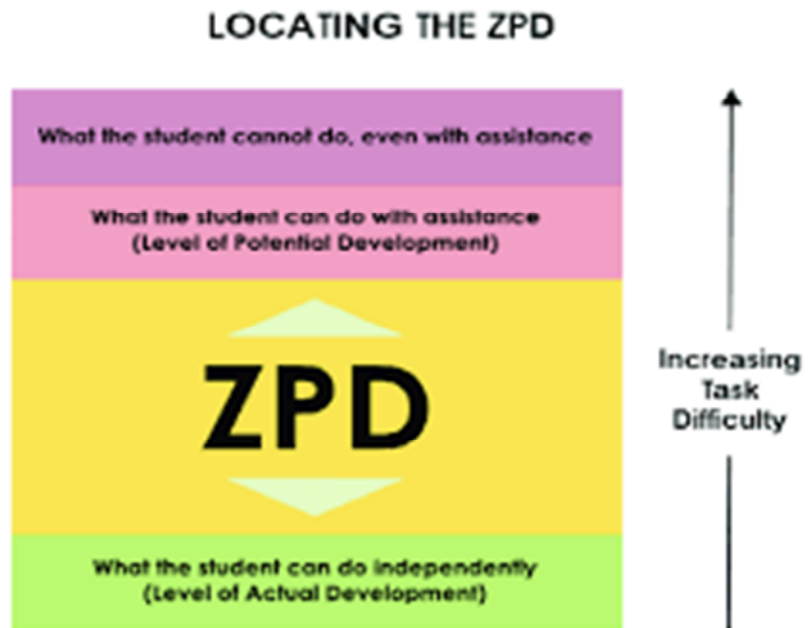


Fig. 5. Locating the ZPD (Lui 2)

Much of Vygotsky's pioneering research focused on social interaction and he examined the complex relationship between language and thought as well as learning and play. He established that children's interaction with individuals like parents, peer, teachers and other adults will develop a 'higher order thought process' (Lui 3). He thus developed the concept of *Zone of Proximal Development* to describe the process of self development. The instruction with each child's ZPD is neither too difficult nor too easy but it rather challenges enough to help the child to develop new skills. In the beginning learners would be receptive to instruction with their ZPD as it aims at the next logical level of their skill development. Though it is difficult to identify which student is ready

for more challenging task and which student needs additional assistance in a class, ZPD keeps evolving.

As an extension of ZPD Wood, Bruner and Ross derived the term ‘*scaffolding*’ to refer to “the instructionally supportive activities and social interactions that occur between the child and other individuals as they guide effective learning and development in the ZPD” (Lui 3). In their opinion “Scaffolding” is a process “that enables a child or novice to solve a task or achieve a goal that would be beyond his unassisted efforts” (Wood et al. 90) Scaffolding requires the adult’s “controlling those elements of the task that are initially beyond the learner's capacity, thus permitting him to concentrate upon and complete only those elements that are within his range of competence”. (90)

3.11 Bloom’s Taxonomy – LOTS (Understand and Remember)

The Bloom’s Taxonomy was first developed by Benjamin Samuel Bloom during the 1950s. It was a multi-layered model which classifies thinking based on six cognitive levels of complexity. This had been adopted for classroom use as a tool to plan teaching. It continued to be one of the most universally applied models as it provided a way to organize thinking skills onto six levels, from the most basic to the more complex levels of thinking. Later in 1990, Lorin Anderson, a former student of Bloom revised the taxonomy hoping to update the taxonomy relevant to the 21st century. As a result many changes were made in the taxonomy. The old and revised Bloom’s taxonomy is illustrated in the following figure:

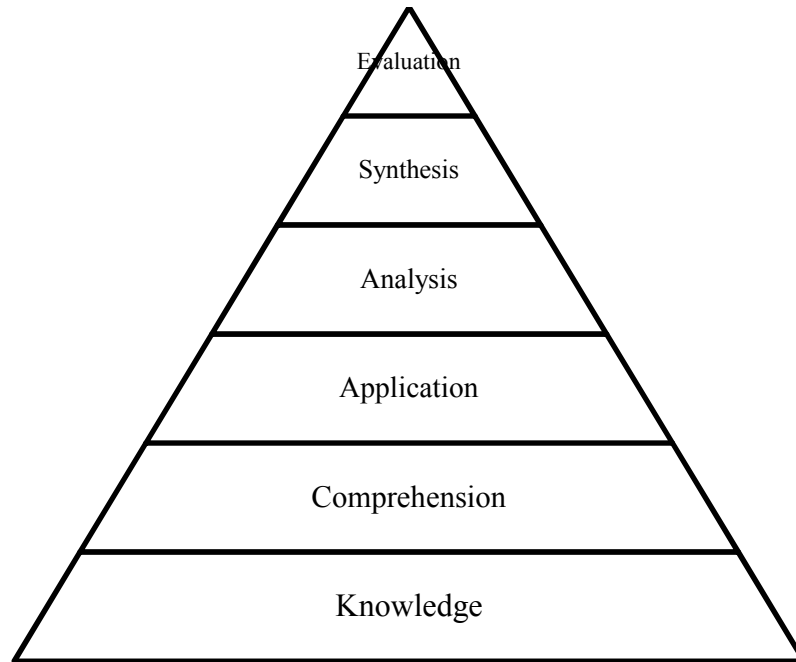


Fig. 6. Bloom's Taxonomy - Old Version (Forehand 3)

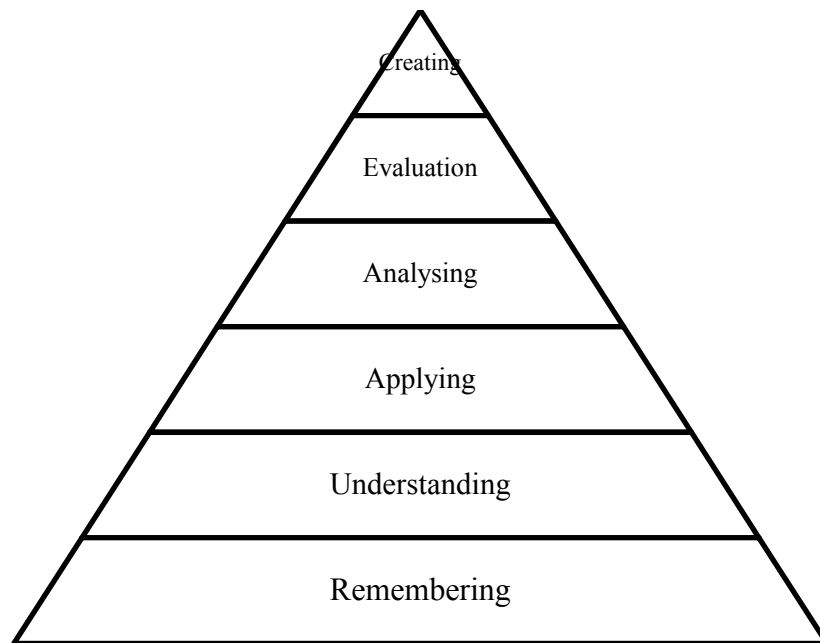


Fig. 7. Bloom's Taxonomy - Revised Version (Forehand 3)

In the present study the revised Bloom's Taxonomy has been adopted to gauge the learners' cognitive ability. From the revised taxonomy two Lower Order Thinking Skills (LOTS) - Understanding and Remembering - were adopted. These were adopted specifically to assess the learners' ability to remember and understand words and concepts in the target language. These two elements were adopted considering the level of the Primary level ESL learners that are focused in the present study. The following figure illustrates the specific learning abilities taken into consideration under the broader terms Remembering and Understanding.

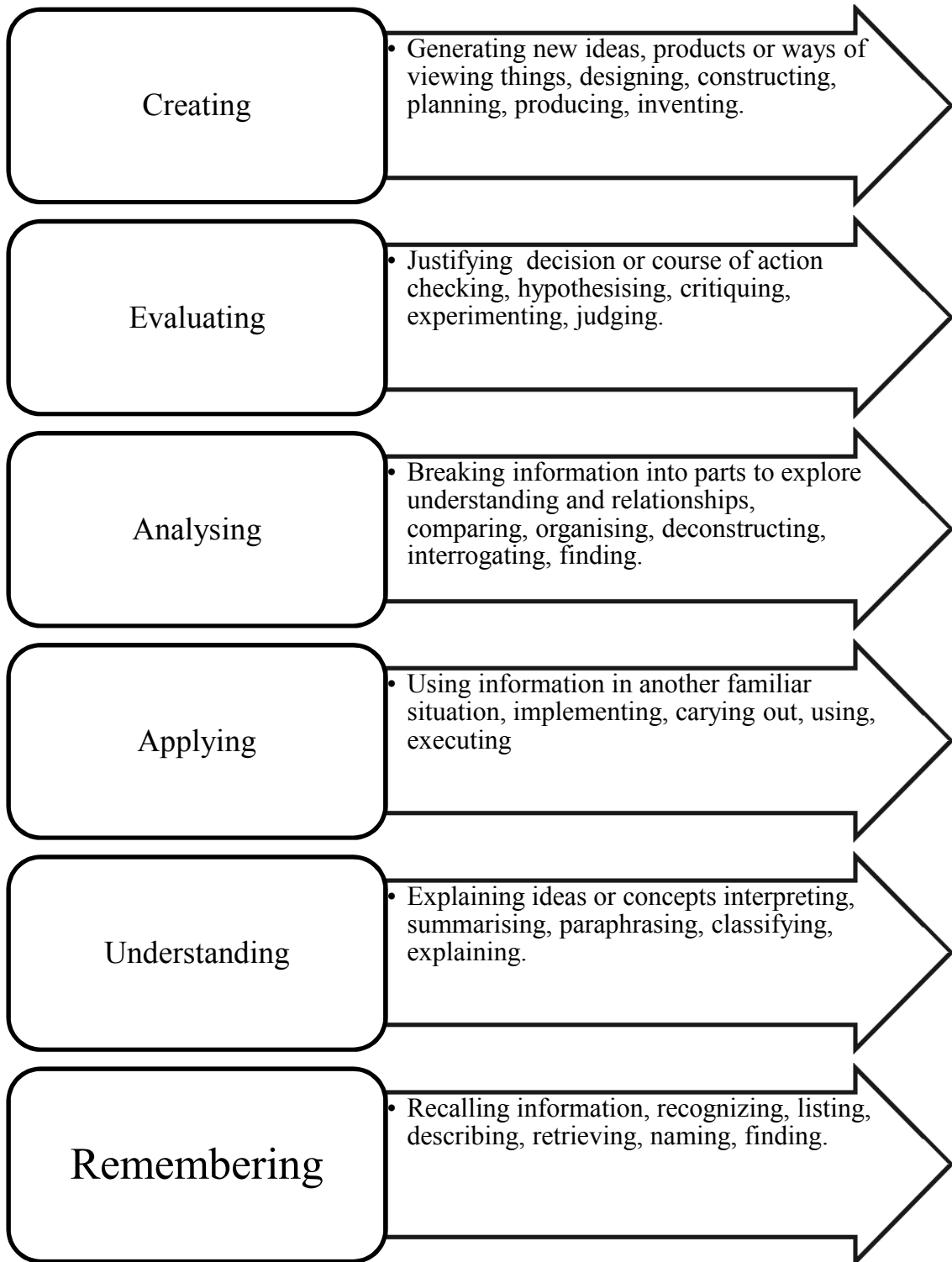


Fig. 8. Adopted from “Bloom’s Revised Taxonomy” (“Revised Bloom’s Taxonomy”, 3).

3.12 The Common European Framework (CEF):

Before conducting the pretest the level of the focus group was assumed to be A1 level as mentioned in the Common European Framework (CEF). The learners' pretest results were analyzed based on the CEF, since it is widely considered as a global scale of teaching and learning and is not language-specific. Nevertheless it describes the learners' ability in any given language at six different levels classified under three broad levels of learners viz. "Basic User (A1 and A2); Independent User (B1 and B2); and Proficient User (C1 and C2)." (Common European Framework 4) The six levels of learners are illustrated in table 3.

A1 level or the basic users can understand the language and are familiar with the day-to-day language usage which will help them to get their basic needs. Also they can introduce themselves and other in the target language and can interact in simple language if the other person speaks clearly. The focus group of the present study comes below A1 level. The CEF specifies the number of hours needed to attain each language level. It, however, does not suggest any particular method of teaching for that attainment. Thus to reach A1 level 90 to 100 hours are needed. (Common European Framework 7)

The present study could not aim at reaching A1 level, as the intervention study conducted to the focus group was only for 30 hours. However the present study aimed to develop the learners' communication (i.e. listening, speaking and reading) through cognition.

Proficient	C2	<ul style="list-style-type: none"> • “Can understand with ease virtually everything heard or read. • Can summarize information from different spoken and written sources, reconstructing arguments and accounts in a coherent presentation. • Can express him/herself spontaneously, very fluently and precisely, differentiating finer shades of meaning even in more complex situations.”
	C1	<ul style="list-style-type: none"> • “Can understand a wide range of demanding, longer texts, and recognize implicit meaning. • Can express him / her fluently and spontaneously without much obvious searching for expressions. • Can use language flexibly and effectively for social, academic and professional purposes. • Can produce clear, well-structured, detailed text on complex subjects, showing controlled use of organizational patterns, connectors and cohesive devices.”

Independent	B2	<ul style="list-style-type: none"> • “Can understand the main ideas of complex text on both concrete and abstract topics, including technical discussions in his/her field of specialization. • Can interact with a degree of fluency and spontaneity that makes regular interaction with native speakers quite possible without strain for either party. • Can produce clear, detailed text on a wide range of subjects and explain a viewpoint on a topical issue giving the advantages and disadvantages of various options.”
	B1	<ul style="list-style-type: none"> • “Can understand the main points of clear standard input on familiar matters regularly encountered in work, school, leisure, etc. • Can deal with most situations likely to arise while travelling in an area where the language is spoken. • Can produce simple connected text on topics which are familiar or of personal interest. • Can describe experiences and events, dreams, hopes and ambitions and briefly give reasons and explanations for opinions and plans.”

Basic	A2	<ul style="list-style-type: none"> • “Can understand sentences and frequently used expressions related to areas of most immediate relevance (e.g. very basic personal and family information, shopping, local geography, employment). • Can communicate in simple and routine tasks requiring a simple and direct exchange of information on familiar and routine matters. • Can describe in simple terms aspects of his/her background, immediate environment and matters in areas of immediate need.”
	A1	<ul style="list-style-type: none"> • “Can understand and use familiar everyday expressions and very basic phrases aimed at the satisfaction of needs of a concrete type. • Can introduce himself/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.”

Table 3 (Common European Framework 5)

3.13 Skills Focused:

The present study has focused on three skills: Listening, Speaking and Reading. In the first place, Listening skill is less cared for and catered to in most of the rural Indian schools. The learners get to listen to English neither at home nor in the school. Considering that Listening skill is the entry point for any language learner to get acquainted to a second or foreign language, the present study aimed at improving the listening ability of the chosen primary level learners. The Speaking skill apparently was the anticipated outcome of proper listening. The Reading skill was taken for study with the view to familiarizing the learners with the words and phrases in English so that the retention could be better.

The present study has not taken into consideration the Writing skill for the following reasons: i) it requires sufficient knowledge of basic English which is already lacking in the primary level language learners chosen for study, ii) Writing skill does not just mean one's ability to copy/write down the words from the blackboard but one's ability to think, compose and write on one's own, which would be too much to expect from a primary level learner and, iii) Writing skill, as such a higher order skill, needs a considerable amount of time for training. The intervention study was conducted only for thirty hours which would not be adequate to develop the writing skills of the primary level learners.

To ensure that all the three skills viz. Listening, Speaking and Reading, are covered the activities were designed in such a manner that every single activity involved two or all of the above three skills.

3.13.1 Listening Skills:

The listening skill is the crucial skill in a teaching/learning process. A report submitted to the Ministry of Human Resource Development by the IIT Madras in

2014 on “ICT @ School Scheme in Tamil Nadu – An Assessment” states that Information and Communication Technology (ICT) was implemented in eight districts including Coimbatore. This ICT scheme was implemented in 143 schools out of 258 High Schools/ Higher Secondary Schools in Coimbatore. It was implemented only 55% of the scheme in Coimbatore (47). Since this ICT scheme was not implemented in Primary schools no technological features were made available for the primary level students. Moreover the schools selected for the present study included both primary and middle schools but the focus group of learners of the present study was from the primary level (Class IV). Therefore no technological tool was used to teach Listening skills but activities and games were conducted instead. In addition Listening skill was integrated with the Reading and Speaking skills in the classroom teaching as well as in the activities conducted.

3.13.2 Speaking Skills:

The primary objective of learning a language is to speak and communicate in that language. Yet the Indian school education system has less focus on speaking skills, especially in the teaching of second language (i.e. English). As a result the learners could not speak in the target language in their day to day life; also it becomes a great hurdle for them to go for higher education and to enter into the job market. Therefore the present study focuses on the speaking skills. Vygotsky’s Social Constructivism encourages the learners to interact with the adult or the more knowledgeable other. It encourages the learners to construct sentences in the target language according to their understanding of the same. However it does not insist on the grammatical accuracy while using the target language at the initial stage. The present study took efforts to enable the primary level learners to speak in the target language though it did not focus on the linguistic and grammatical competence.

3.13.3 Reading Skills:

The learners' ability to comprehend familiar names, words and very simple sentences used on leaflets, posters and notices, come under the basic level of reading skills according to Common European Framework. (Common European Framework 8) Reading comprehension was the main sub-skill focused under reading skills and the learners' ability to identify and understand word meaning. (LOTS) (i.e. understanding and remembering) from Blooms' Taxonomy was incorporated in the present study. As the present study involved only the primary level ESL learners, only the Lower Order Thinking Skills were focused. Activities were conducted to develop and to evaluate the ability to comprehend and remember the words and meaning in the target language.

3.14 Summary:

This chapter presented the theoretical premises of the present study. It gave details about the First and Second Language Learning theories like Behaviourism, Innatist Theory, Developmental Theory, Krashen's Theory of Second Language Acquisition, And Constructivism. This chapter also discussed various factors that affect second language learning including the learners' socio-economic background, the method of teaching in the rural Indian classrooms, lack of trained teachers in India, etc. these are the factors that prompted the researcher to adopt Vygotsky's theory for the study and this chapter has also given the rationale for the choice of theories. It has also presented how Vygotsky's notions were integrated with the Additive Bilingual Approach.

Vygotsky's Socio Cultural Theory of cognitive development has been adopted for this research. It encourages learners to learn the language by interacting with the adults. It also projects how a learner learns with the help of an adult. This human

mediation helps the learner to pick up the language easily. Vygotsky's concept of Zone of Proximal Development (ZPD) provides the understanding of how a learner's individual development happens. The instructions for the proximal development would be neither too difficult nor too easy for the learner. It depends upon the learner's need and ability to do a task. As an extension of Vygotsky's ZPD, Bruner et. al, derived the concept called "Scaffolding," which means assisting a child to do a task that he/she finds difficult to do without assistance. This chapter has also presented how English could be taught as a second language to the learners, based on these notions. There are also details about the Additive Bilingual Approach and the role of first language in the learning of second language. In addition to this, this chapter discussed Blooms' Taxonomy, Common European Framework and the language skills focused in the present study.