THE ACQUISITION OF MEANING BY BENGALI CHILDREN:

A LINGUISTIC ANALYSIS

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DECLARATION

This is to certify that I, Jennifar Jahan, have completed this Ph.D. dissertation work on the topic "The Acquisition of Meaning by Bengali Children: A Linguistic Analysis" under the guidance of Dr. Feroza Yasmin, Professor of Linguistics of the University of Dhaka, for the degree of Doctor of Philosophy. This is an original piece of work and I have not submitted it earlier elsewhere.

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CERTIFICATE

I hereby declare that this Ph.D. dissertation entitled "The Acquisition of Meaning by Bengali Children: A Linguistic Analysis" has been accomplished by Jennifar Jahan (Reg. No. 66/2017-2018) under my supervision. As per my knowledge this thesis has not been previously submitted to any other university or institution for the award of any degree, diploma, fellowship or its equivalent.

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Because I have learned more about child language development from my children than from any book, this work is dedicated especially -

To

Keyaan & Anahita

and

My Parents

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ABSTRACT

This project aims to understand the meaning acquisition process of young Bengali children and the transformative changes this process brings to their overall language development. Longitudinal research was conducted with six Bengali spoken children (ages between 18 months – 5 years) who have started to acquire language in a natural setting and home environment, over a 4-year-period. Theoretically grounded on the usage-based approach to language acquisition, this research focused on foregrounding the influence of the surrounding environment of the participants by observing their everyday language experiences.

The findings revealed a complex structure of language acquisition by the children, which is constructed through constant interactions with others and is dependent on the surrounding environment mostly. Caregivers are influential and enhance children's language acquisition process interactively. Moreover, I saw children constructing multiple individualized strategies in acquiring their language. Categorizing the language is one of those brilliant interactional strategies. Perceptual, semantic, syntactic, and even social categorization took place in the children's first language acquisition period and enhanced their language growth. The findings also revealed that first language acquisition is not just about creating a vocabulary but also about the children learning the words and associating them with their meanings. By understanding the children's meaning acquisition process, this study contributes to the theory, research, and praxis on the infants' and young children's overall language development progression.

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CHAPTER 1

INTRODUCTION

Language is a process of free creation; its laws and principles are fixed, but the manner in which the principles of generation are used is free and infinitely varied. Even the interpretation and use of words involves a process of free creation.

Noam Chomsky (1970)

The acquisition of first language is a silent achievement. Even we are not sure to have any recollection of it at all. Literature on child language acquisition indicates that it is doubtlessly the greatest intellectual feat any of us have ever required to perform (Bloomfield, 1933; Gleitman et al, 2011). No firm means of scientific determination is there on how or when language originated in human species; but human being continuously witness this in them and in every child born.

It is hard to believe a human social life without the existence of language. Young children start to behave as communicating well before they take their first steps. Although systematic ways of responding to their parents' gestures and expressions and taking 'conversational turns' in interactions start when children begin using their first words. But the fact is, children do not learn language incidentally, separate from the practicalities of life. Children learn language by using it to take part in the community life into which they are born (Mercer, 2002).Language is an integral part of life that every child requires to convey wants, needs, thoughts, concerns and plans. Using language is as natural as breathing or walking for the human (Allen et al., 2015).

Children are not born with language, they need to acquire it. They need sounds, words, meanings and constructions. Children need to know how to integrate language with other communication modes or when and where to use it. They strive to cope with the process of knowing others at first, and then make them understand. How do children master language skills? Or what processes do they go through as they learn to understand and talk? These questions are addressed when researchers tend to find out how this process of language acquisition takes place. This research focuses on children's acquisition of meaning of a first language, the phases they go through and how they use language as they acquire it. This study outlines some of the theoretical approaches in this field and the assumptions children make to express their thoughts along with issues that come up during the process. The focus will be thus on analyzing the steps children take while communicating meanings more elaborately and beyond one word at a time.

Children try to figure out which construction fits for a word or which constructions they should use to communicate particular meanings. Their primary target is to sort out how to present any information to someone or how to represent a situation as a speaker (Clark, 2003). At the beginning child's language acquisition contexts remain limited (generally) to his or her immediate family members (who are regularly present, especially the mother), and to the child's immediate environment. I have observed that children grow up and get experienced from new events or contexts like, going to pre-school or changing houses to a new neighbourhood. New environment affects children's early language acquisition and their language use changes too.Thus, my research interest is to see children using languages to convey meaning depending on the input they get mostly from their surrounding linguistic and

family environment. Investigating the continuous process of early meaning acquisition of the Bengali speaking children is the main focus of this research.

Literatures on Child Language Acquisition or CLA have predominantly pointed to the positive results of correct or proper inputs on language growth of early language learners. Factors related to language acquisition like, age, gender, self-assured behaviour or expressive language and their effects were studied by them. Works of such researchers have shown many of these variables to be important for language acquisition to varying degrees (Bowerman, 1978; Huttenlocher, 1974; Bloom, 1970). Many of them studied their own children's language development and tried to make generalizations too (Halliday, 1975). Moreover, issues like 'child's concept development' has also been marked as very influencing on child's first language acquisition (Clark, 1971).

Despite the extensive literature on child language acquisition, there seems to be a gap in understanding the significance of meaning making as a vital area of overall language development, especially from the language users' perspective. Previous studies evaluated child language acquisition from a professed about its overall position in the development and growth of a child in general and its contribution to child language communication (Saffran et al., 2001). Several studies were conducted to measure the stages of language development or developmental milestones of children. Even specific areas like phonology, morphology, syntactic development or stagewise language acquisition have been explored too (Crain and Fodor, 1993; Brown, 1973; Thuresson, 2011). A few works have also been done on selective children's semantic growth (Reich, 1976; Ninio, 1985; Litowitz, 1977).

However, understanding the relationship between children and the language learning institutions that they represent is very critical and significant as it affects the overall development of children. This research is about identifying the process of constant acquisition of meaning by Bengali speaking children. Attaching a meaning to words or objects through accumulation of semantic features is also included in the process. The context of social interaction has been identified as an important feature of language acquisition. Moreover, existence of other individuals in a child's immediate environment and healthy language input is very important for language production and influencing comprehension too. This present investigation has considered these factors and proposes to examine the issue of semantic acquisition from yet another point of view. In this context how the Bengali speaking pre-school children acquire and modify meaning along with integrating, categorizing and adapting new information will be attempted to investigate in this study.

In this chapter, I provide a synopsis of my assignment by providing its research statement followed by a section that identifies the significance of this study in the field of first language acquisition and semantics in natural language and cultural settings.

1. Statement of Problem

First language acquisition is intrinsically intertwined with communication as interactions and socialization with others are created, enacted, and toughened all the way through it. Acquisition is therefore achieved and reinforced communicatively with the help of the information and experiences gathered from the environment as well as the people nearby the learner. Language comes individually as one of the most vital of human activities. The marvelous capacity of acquiring and analyzing of the essential characters of language input starts from birth (Lust, 2006). The use and understanding of language represent the child's

thoughts more clearly than their attempts to communicate with others.

Meaning acquisition is an innate process that occurs naturally to every normal human child from the first year of their life.

The way in which infants or young children know the meaning of things, or how they expres s a language's semantic function, is called meaning acquisition.There are several factors that are and considered to be the precursors of language development. Starting from the child's single word utterances, it appears to be like that these early words at first have primarily 'intentional' meaning rather than 'lexical' ones (Morgenthaler, 1981). A child who starts to convey meaning through verbal language is understood better for what he or she intends to mean or communicate. The content of a child's speech is considered to be its conceptual substance as several factors like age, self esteem, cognitive- perceptual development, linguistic or non- linguistic experiences are related to it. According to researchers, the language facility of the child could influence their ability to communicate expressively and help in the growth of language competence too. The nature of the speech produced by the child can never be understood until the environment or language situation is considered. This makes the need for proper 'language input' more important in the successive development of a child's language faculty. The 'usage based theory' of language acquisition foregrounds the importance of identifying the meaning making process of a first language learner from his /her perspective. My research takes the usage based theory as a base to enter the realm of child language acquisition and attempted to understand and co-create the everyday communicative practices. Like all the young language speakers of the world, the Bengali speaking first language learners also engage in interacting with each other through social and linguistic processes. This study specifically tried to understand the meaning making

discourses that emerge from the interactions and inputs received from the immediate family members and surrounding environment of the child through participant observations and in-depth interviews. The ultimate goal here was to observe and figure out the communicative experiences of the children's meaning expressions in their day today life. It foregrounded the acquisition processes of the participants to create spaces of language development.

1.2 Significance of research

On the basis of the research interest, the question might arise why it is important to look at the meaning acquisition process of Bengali speaking children from the input they get from their surroundings. Children learn only the 'language forms' they are exposed to. To know how language acquisition proceeds, digging up the nature of the exposure is a necessary component of any account. Among organisms, only human kind is blessed with the language acquisition ability. Thus, determining the nature of the perceptual, cognitive, conceptual, representational and linguistic capacities that enable children to perform the language act is also very essential to any inquiry to language acquisition.

The acquisition of First language has been an area of interest for decades. David Ingram (1989) divided the history of the studyinto three periods- (a) The period of diary studies (1876-1926), (b) The period of large sample studies (1926-1957) and (c) The period of longitudinal studies (1957-present). Starting from the early 'Diary study' of Charles Darwin (1877) till recent case studies, it can be seen that different studies have shed light on this issue. Darwin's diary contains observations of the facial expressions and gestures that his son William made during the first 3 years of his life. The standard work on this topic is C. and W. Stern's *Die Kinderprache* (1907), a book which summarized the observations of their three children in a masterly fashion that had been so plentiful in studying child language

acquisition during the next twenty or thirty years. This book was a guideline for further work in child observation. Even though, it was done on psychological perspectives. During the modern era of diary studies, *Speech development of a bilingual child: Diary from age 2* (Leopold, 1939) has been an influential work in this field, focusing mainly on the acquisition of a child's vocabulary.

The very first study on child's semantic acquisition was done by Suppes (1974). In the book *The Semantics of Children's Language*, Suppes tried to put up issues involved in the child's first language acquisition. But the book has been criticized for emphasizing mostly on grammar or syntax, and too little on semantics. Other than these major studies, specific areas such as lexical development, syntactic development, grammar and verb acquisition, phonological development (etc.) have been studied descriptively (Tomasello et al., 1986(a); Tomasello & Ferrero,1986(b); Dromi, 1999; Tomasello, 1992; Mervis et al.1992; Kedar et al. (2006); Weerawardhana, 2016).

If the subject matters of these researches on child language are analyzed, we can perceive that study in this field started at first inquiring issues like psychological or non-verbal development of children. Later the focus shifted to studying issues that fall into the mainstream research on first language acquisition of children. It is true that many vital areas related to this field explored, including the research interest I share, which is semantic acquisition. But it has always been analyzed as a part of the child's over all language development or including in inquiries on stage of language development. Morgenthaler (1981) presented a descriptive work on semantic information of pre-school language users. Important to this study are age, gender, sense of worth, assertive behaviour, expressive

language and receptive language are potentially important but isolated factors in semantic acquisition.

This study intends to project its focus on the Bengali speaking children as participants, so previous work in this field done in Bengali perspectives need to be acknowledged too as these will signify the importance of my research on this issue. At first, professor Dil (1971) attempted to investigate the nature of 'Bengali Baby Talk' as a predictor of social roles such as age, sex, and kinship. This study attempted to identify the phonological, syntactic, and lexical features of Bengali baby talk and its occurrence in speech. She studied a few well-known nursery rhymes that were sung to babies as forms of baby talks. Nasrin (2008) focused on the grammar acquisition of a two-year old Bengali speaking child; the author tried to apply the theories of first language acquisition on the child's speech and concluded that the child's speech was 'grammatical' as it follow a structured pattern. Ruby et al. (2008) studied how British Bangladeshi children are learning Bengali after school and found that most of them are more proficient in English than in their mother tongue. Bilingual literacy and numerical tasks were created and completed by pupils aged seven to eleven at two East London primary schools through action research with mains tream and community language class teachers. Sultana et al. (2016), studied morphosyntactic development, specifically verb morphology of typically-developing Bengali-speaking children between the ages of two and four, studied three verb forms, the present simple, the present progressive and the past progressive.

If we look at the subject matters of these studies, we can see that semantic acquisition has not drawn expected attention in Bangladesh or Bengali perspectives of researchers working in related fields. Scattered works are found exploring lexical, morpho-syntax or

other grammatical features. Study on continued meaning acquisition process has not been done so far.

This research is significant for trying to present a descriptive analysis of Bengali children's meaning acquisition process from linguistic perspectives and it is a primary work. Moreover, as meaning development is a vital part of children's cognitive development process, the findings of this study will also be important to psycholinguists, language therapists and researchers interested in applied linguistics.

So in essence, this research project's significance lie in its: (1) ability to interrogate an important linguistic issue – child meaning acquisition – in the backdrop of Bengali language, (2) willingness and aspiration to reconstitute, co-construct, and open up spaces for the participants (especially the children) to engage in conversations and acts in their natural setting, and (3) passion to centralize the needs to explore the meaning making process with the usage-based approach as an entry point. These analyses will for the most part, build up a systematic foundation of the study of child language development and, at the same time, work on personal relationship with the child and his or her family members; which will further enhance a better environment for a child's natural language growth.

1.3 Brief context of Bangladesh

This research is done in Bangladesh and also in Bengali perspective, so there is little need to present 'Bangladesh Context' individually. But still I felt the urge to include this small segment to present an idea of Bengali family structure.

In Bangladesh family structures were mostly 'join' where parents, grandparents, uncles and aunts lived with the children under the same roof (especially in villages). Children grew up interacting with all the family members, receiving plenty of social and language

input. Only the mother did not have to take the extra load of taking care of both the child and the household chores. Now family structures have become 'nuclear' mostly, not in cities but in villages also. Because of job, career, children's education (or the death of the elderly persons) left no choice for the child other than staying alone with parents only. Sometimes both of the grandparents or one of them stays with the child (not a regular scenario). In such cases, the mother depends more on housemaids to take care of the child when she has to go to the office or work at home. Or she can spend little quality time with the child. The nature and rate of receiving language input differ due to such unavoidable social circumstances. For example, in joint family's children get language and behavioural inputs from many family members and learn vocabularies and language use comparatively faster. In single families if the mother is a house wife she might getan adequate amount of time to spend with the children, but a working mother has to depend more on house maids or any other caregivers. The child gets most of the language input from them, TV shows and currently from 'Smart' phones.

But in all these cases the family and surrounding environment where the child is growing up is very much important as the child will be getting his first participation of all type from there. So a part of my research really depends on the children's living environment which will help me to know the nature of the language and behavioural inputs the child is getting. Moreover, it is also necessary for me as I have to collect the data from the child's natural living environment too.

1.4 Overview of research

The next chapter of my dissertation, Chapter 2, 'Literature Review', I situate the

theoretical foundation and premises of my work 'the usage- based approach' to language acquisition. Following this, I set up discussion of the child meaning acquisition for communication and interaction in Bengali perspective in an attempt to highlight how they turn up in the overall language growth of a child and look at how the selected approach could guide such an understanding. This chapter ends with a statement of my main research questions that guide my study.

I want to leave room also for inquiring the expertise of the existing scholars and their research from a significant first language acquisition perspective. In chapter 3, 'Methodology', I discuss the philosophy and the process of my field study that I conducted over 4 years in Dhaka, Bangladesh in details to fit into my research questions. In this part I talk about my beliefs of solidarity in my methodology and my interactions and the associations with the research participants who shaped and informed my study, especially in terms of data collection, analyses and evaluation.

Chapter 4, 'Findings', shares my research findings with co-scripting the observation data of the research participants, as the data arrived from in depth observations and conversations with them. The findings speak to the questions I shared in Chapter 2. The findings shed lights on the participants' constructions of meaning, performance in communications and the role of environmental and human input for successful meaning acquisition. It will make sense to characterize the acquisition of a domain with a reasonably clear concept of what the structure of the domain is, which is the purpose and outcome of the acquisition process.

Chapter 5, 'Discussion', relates my findings from chapter 4 with the theoretical and methodological underpinnings of my assignment. Here I talk about how surrounding

environmental input plays critical role in understanding, defining and guiding the language experiences of the cultural insiders of this research project. Moreover, child language categorization as a vital part of meaning making in the form of multi unit utterances will be presented too. Finally, I will clarify the relation and influence of lexical learning and semantic acquisition on child meaning acquisition with the help of the analyzed data. Before explaining the results in depth, we call on the semantic information to describe what we know regarding children's language-use objectives. This will allow the reader to evaluate how the current language acquisition research guides us in sorting out the acquisition process and where there are gaps in our knowledge.

The usage based approach is extended to understand the role of structuring schemas in language acquisition and interactions between children and others in their natural language environment. It also guide us to broaden the scope of observing and analyzing data collected from language used in other settings different from their everyday one too, like pre-schools, neighbour's house or play grounds etc.

Chapter 6, 'The Conclusion' is the final chapter of my dissertation. Following the above discussions, this chapter will present a quick look of the future possibilities that resulted from this research. Limitations that could not be completely overcome will also be highlighted. Finally, I summed up with an overall summary of the research.

CHAPTER 2

LITERATURE REVIEW

In this chapter, I locate the underpinnings of my study as a concern in a child's overall language growth in the realm of child language development and the literature on first language acquisition. I start by laying the foundation of language acquisition theorizing and its intersections with cognition, overall child development and language environment. Then, I provide an alternative critical lens on language acquisition conceiving and investigating through a presentation of the epistemology and axiology of the usage-based approach. I discuss the constitutive elements of the usage- based approach, namely pivot schema, constructing meanings as structures and abstract constructions. I would also like to emphasize the significance of the immediate language influence and learning in the formation of meaning that script communication and language act from the child language development contexts. This approach is contrasted with the predominant scholarship constituting the literature on child language acquisition. I end this chapter with the research questions that shaped my study and informed my work.

2.1 Language acquisition

Language acquisition is one of the essential human traits. The way children learn their native language is referred as 'First Language Acquisition'. This process enables children to perceive and comprehend language, produce and use words as well as sentences to communicate. According to Rice (1989), language acquisition needs three skills- (a) the

language to be acquired, (b) the child and their abilities, (c) environmental settings or the language they hear and the speaking contexts.

The basic question that usually comes to any child language researcher's mind is, 'how do children learn to talk?' Several answers are put forward in many books for centuries to get information on child language development. Researchers thought about the process that helps children to communicate and express themselves in the world. This area of interest has been taken into account from as early as the fourth century. Saint Augustine (397AD) entitled the chapter of his 'Confessions' (autobiography) 'That When a Boy He Learned to Speak, Not by Any Set Method, But from the Acts and Words of His Parents' (Schaff, 1890). This reveals the fact that 'child language development' has always been an area of interest for centuries.

2.2 Historical background of language acquisition

The above discussion indicates that the field of child language studies has its place preset long back in the history. But even after a long systematic historical background and several established theoretical stands, it is still a controversial issue. Different theories and hypotheses led to this controversy. Modern theories of child development were rooted by English philosopher John Locke (1632-1704) and French philosopher Jean Jacques Rousseau (1712-1778). Locke believed that children take birth with an empty mind which he named 'tabula rasa' (blank slate) and these slates start being written on after getting experienced from the environment and by interacting with other people (Eng, 1980). Locke emphasized the importance of relationship between old and new knowledge (principles of association) and of imitation and repetition, believing in 'external forces' or 'nurture' as the driving force in development (Gianoutos, 2006). On the other hand, Rousseau emphasized the role of

'internal forces' or 'nature' on child development. According to him, children are born with a natural sense of right and wrong, so they are regarded as 'novel savages'. Rousseau has been accredited for giving the first true explanation of childhood growth by giving the idea that children and adults are very different in developmental accounts. Moreover, two more vital issues related to this area- 'maturation' and 'stages of development' were also first introduced by Rousseau.

Another name must mentionable in child language study is G. Stanley Hall (1844-1924). He was the first psychologist to focus on studying child development. In 1890's he founded the 'Child Study Movement' (White, 2002). Hall was greatly influenced by Charles Darwin's view on studying child development as the vital issue to understand the origins and nature of human beings. Consequently, it can be mentioned that, Darwin (1877) made a baby journal in which he has recorded his son's developmental changes since his birth, named as 'A biographical sketch of an infant'. Later, Hall was very influential to his contemporaries and because of his strong influence child study became a discipline in its own right (Gupta, 1995).

2.3 Theories of child language development

According to Wohlwill (2016), the prime source of data to establish theories of spontaneous language production is the children's own language observed in a natural environment. Classical theories of child's first language development are classified under the following headings:

- empiricism/ behaviourism,
- cognitivism
- rationalism/ nativism

- inter-actionist/ constructivism and
- social constructivism.

Under the above mentioned themes foremost theories of child language acquisition have been put forward. They will be discussed in brief below.

2.3.1 Behaviourism. Behaviorism emerged in Linguistics at the beginning of the 20th century. Essentially, it is a psychological theory that has been developed to understand the essence of native language learning. B.F. Skinner was the most influential figure to take it ahead. According to Skinner (1957), language is verbal behaviour and language learning is equivalent to the other skills that children learn in their lives. The behaviourist theory suggests that the importance of other human roles in infants' oral language learning is very significant as it develops their language skill through imitation, rewards, and practice; therefore, human role models in infants' environment also include stimuli and rewards (Cooter &Reutzel, 2004).

The key tenet of this theory relates to the analyses of human behaviour in terms of- stimulus- response- feedback- reinforcement and was developed, in particular, in Skinner's 'Operant Condition' model (Rivers, 1981). By this term he meant the 'conditioning of responses' which includes self control and independence (factors that are fostered by reinforcement). For example, if babies are rewarded for their varied babblings, and mutterings (similar to the words of a person around them), more similar types of combinations of syllables and words will be reinforced in the same circumstances. By the passing of time baby's continuous development of sounds, clusters of sounds and utterances

are combined by analogy and generalization. Gradually, they are internalized as implicit spee ch and most of their sentences are similar to adults.

Behaviourists agree that an extremely complex language learning process could be completed by broken down into minute habits (Hubbard, 1983). In short, in this view language development is a matter of conditioning by means of practice, imitation, reinforcement and habituation, which reflect the speed of language acquisition.

In 1959 Abraham Noam Chomsky specifically criticized the notion that all learning, whether verbal (language) or nonverbal (general learning) takes place under the same underly ing mechanism. He said that there is no empiric evidence or any established reason to support the claim that all learning can take place only by habit formation (Chomsky, 1959). He placed the importance of environmental feedback and internal factors (like, the speaker) in learning. This thought initiated by Chomsky and his followers developed another theory of language development known better as 'Nativism' or 'Innateness'.

2.3.2 Nativism. Linguist Abraham Noam Chomsky presented a broad account of language development. He believed in some variation of 'innateness hypothesis' which considers that the child comes into the world already programmed in some ways to learn a language. That means that children from birth inherit the ability to learn any human language and that helps children use certain linguistic structures precisely as they are already imprinted on the child's mind. Chomsky explained that this may be a kind of 'Language Acquisition Device' (LAD) that would make it easier for the language users to generate new utterances that they have never heard or spoken before and this device would be programmed to recognize these universal rules that underlie a particular language (Chomsky, 1957).

Chomsky acknowledged the role of environment in learning a language; he says the language environment determines which of a number of languages as a child will learn (Gupta, 1995). For example, an English speaking child who did not grow up hearing 'Bengali' will not speak Bengali, although the child is genetically capable of learning that language. But if he is exposed to Bengali, his LAD will help to acquire the language only by hearing it. Relevantly it is important to mention, one important thing about Chomsky's theory is that, LAD cannot be modified by experience as it is hereditary programmed (Dovey, 2015).

Chomsky's theory was accepted and elaborated by many other scholars like Mcneil (1968), Horstein& Lightfoot (1981), Bley- Vroman (1988) etc. Moreover, his theory was discussed in other fields (like, number, space, cause, object knowledge) also. Even some of the researches on 'cognitive development in infancy' are also greatly influenced by the nativist theory.

Chomsky wanted to establish that an innately specified linguistic processes constrained class of data in a specified linguistic way, Piaget contrasted on this thought. According to him, for linguistic and cognitive development on form of innately specified, domain specific knowledge is required (Piaget, 1936/1952). He tried to explain how a child constructs a mental model of the world and sees cognitive development as a mechanism that occurs due to biological maturation and contact with the environment. This thought contributed to the establishment of the 'Cognitive Development' or 'Cognitivism' theory.

2.3.3 Cognitivism. Psychologist Jean Piaget positioned language acquisition in the context of the mental or cognitive development of a child. Piaget first proposed the most wide-ranging theory of 'Human intellectual development'; thus he was considered by many

as the founder of the study of 'Cognitive Development'. He has provided a theory to demonstrate how a child constructs a mental model of the world (Piaget, 1936/1952). According to him, language is just one component of the overall intelligence of a child and children acquire language with the help of cognitive skills. These abilities develop with biological maturation and environmental interactions.

According to Piaget, in order to psychologically construct the world, children first need to grasp a concept before they know the particular language that conveys the concept; for instance, there will be a point in the intellectual development of a child when he can equate objects with size. This means the child could arrange some sticks given to him in order of size. This ability is called 'categorization' and it is a vital process in a child's language acquisition period to get meaning through language use. Piaget indicated that children need to reach and achieve this stage to understand and use comparative adjectives like 'bigger' or 'smaller'.

Another phenomenon related to cognitive theory is object permanence (Bremner et al, 2015). Children seem unaware of the existence of objects which they cannot see during the first year of life. By the time children reach the age of 18 months, they realize that existence of objects is independent of their perception. Cognitive theory draws attention to the significant increase in children's vocabulary at this age, indicating a link between object permanence and object label learning. The main idea of Piaget's theory is based on the idea that, knowledge is constructed; this construction process is fundamentally same in all human cultures. Piaget contributed majorly on how children are studied; as a result all his work is constructed onthe basis of observing children. His "observations of infants' understanding of

object" concept is valid till today. Moreover, developmental psychologists are very much influenced by his theory.

According to Piaget, human beings are born with primitive mental processes and these processes are our basic action patterns called 'sensory motor schemes' (Piaget, 1936/1952). Later, on the basis of this action patterns more sophisticated mental structures are constructed. Piaget gave four stages of language acquisition (which are at the core of his theory), which will be discussed later in the stages of language acquisition section.

Later, few significant theories of language development off-shoot of Piaget's cognitive theory, giving priority on social factors on child cognitive growth. The following theory is one of the theories that are influenced by Piaget's cognitive theory.

2.3.4 Social constructivism. Psychologist Jerome Bruner was one of the founders of constructivist theory. He was influenced by Jean Piaget and gave a theory of child language development called-'social constructivist theory of cognitive development'.

He believed that social factors, especially languages are important for cognitive growth. He thinks, children could be facilitated by developing their symbolic thinking skills using language. In particular, Bruner proposed three modes of language representation which are the way information or knowledge is processed and encoded in memory (Bruner, 1966). They are-

Enactive representation (0-1 year): It is an action based mode that encodes action-based information and stores it in our brain. For example, an infant might remember shaking rattling as a movement muscle memory.

Iconic representation (1-6 years): Here the information is stored visually in the form of (mental) images. Therefore, it is also helpful to have diagrams or illustrations to accompany the verbal information when we learn a new topic.

Symbolic representation (7 years onwards): This mode develops at the end and here information is stored in the form of a code or symbol, such as language. Symbols are versatile in that they can be manipulated, organized, classified etc., so that the user is not limited by actions or images. Knowledge is stored primarily as words, mathematical symbols, or other symbol systems at this symbolic representation stage.

According to Bruner, Language Acquisition Device (LAD) should have Language Acquisition Support System (LASS) and by this he refers to the child's family and social environment in which he acquires language. And the language used in adult and child interactions is called Child Directed Speech (CDS).

Finally, Bruner's theory can be concluded by mentioning his idea of 'scaffolding', which involves helpful, the prearranged interaction between an adult and a child that aims for helping the child achieve a specific goal. Bruner emphasized that, adults' interaction with children strongly support acquisition process.

2.3.5 Social learning theory. Another influential theory that offshoot from behaviourism is known as 'Social Learning Theory'. This version of thought was initially outlined by Albert Bandura and his colleagues in 1963, but later established and presented in detail by Bandura (Bandura, 1971). Like Skinner Bandura and his colleagues emphasized on the role of environment in development, but they believed that, 'behaviour is learned, not only by shaping and reinforcement, but also by watching and imitating others'(Bandura, Ross & Ross, 1961). Social learning theorists were interested very much in socialization or as can

be said to be the process by which children learn the appropriate behaviour of their society. Later in 1980's, this theory was renamed as the 'Social Cognitive Theory' (Bandura, 1989).

This theory is important for its recognition of children's cognitive development along with the normal imitation process. Accordingly, Children's later actions are guided by the experiences they gain through observing other children and adults forming concepts about possible behaviours; children can even change their actions and concepts after observing their behavioural consequences (Gupta, 1995).

Behaviourists and nativists view the child as passive learners, where constructivists and social constructivists find children actively participating in language development. Again, to the behaviourists development is the result of learning on the basis of imitation/ modeling; whereas nativists say that development results in maturation (innate structure/ LAD). Constructivists think of it to be structured through adaptation and organization; finally, development is seen as the result of changes both in internal structures and through instruction that occurs through reconstruction. Behaviourists put emphasis on the role of the environment and the past history of the child on the topic of nature and nurture, whereas nativists emphasized the role of innate factors (such as maturation). Both the constructivists and social constructivists explained the nature of development from social perspectives and discussed the influence of cultural context.

Each theory focuses on various developmental factors and makes different assumptions about the relative importance of both internal and external influences. Each theory has contributed greatly to our knowledge about human nature and development" (Gupta, 1995).

2.3.6 Usage based theory of language acquisition. The 'Usage Based Theory' of language acquisition by Michael Tomasello (2003) drew much attention for his novel theoretical perspective in the field of first language acquisition in children. It took most of its insights from cognitive theory. American linguist Michael Tomasello developed this theory. According to Tomasello and other followers of this theory, pragmatics of human communication are primary as both meaning and structure emerges from language use within cultural conventions (Tomasello, 2000).Thus his theory is regarded as the 'Social Pragmatic Approach' to language acquisition.

Tomasello claimed that two sets of skills emerge in human child before linguistic communication; they are- (a) intentional reading or functional dimension and (b) pattern finding or grammatical dimension. According to him, these two sets evolve to each other and children acquire language around at the age of one with the help of these two dimensions. Intention reading is actually a social cognitive skill that enables children to symbolize acquisition culturally by detecting adults' social conventions to meet social ends. It includes 'joint attention' which is central to cognitive construction. Secondly, pattern finding helps children create abstract linguistic schemas or constructions that go beyond the individual utterances they hear people use around them. Pattern finding is regarded as the central issue in the usage based theory of grammar acquisition (Goldberg, 2003 & Tomasello, 2003).

Usage based theory claims that infants start communicating in some comparatively sophisticated ways before they acquire any linguistic conventions(like pointing or any kind of iconic or conventionalized gestures); therefore, in order to understand the nature of child languages and how they are acquired, one must always begin by analyzing their communication process broadly. This theory emphasizes on the importance of joint attention

frame (adult's and child) as a medium of early communication within a mutually understood context. Like, if a child is engaged with an adult in cleaning the toys, pointing by the adult towards a toy in a corner makes the child understand that she has to bring it and clean it up too; mutually shared topic helps a child acquire meaning in a given context (Grassman & Tomasello, 2007). In this way children become capable of comprehending their role as well as the role of their communicative partner's and it is very important in meaning acquisition (Carpenter et al., 1998).

Why do children communicate or what are their communicative motives are also stretched in this usage based approach. Bates et al.(1989) discussed only of two types of motives- 'declarative' and 'imperative'; but Lizskowski indicated another kind of motive- 'the informative motive'. But whatever the type of motives might underlie children's pre-linguistic communication; all of them serve the same purpose which is building infants' early language structures upcoming in the next few months (Lizskowski et al. 2006).

Another important issue is discussed elaborately in the usage- based theory is 'how children learn words'. According to Tomasello, infants start communicating with the basic unit of linguistic expressions, which are 'utterances'. Along with some speech act these utterances later on composites structures. When an adult talks to child he or she tries to complete two stages at the same time- firstly, they look for communicative intention and then for communicative functions of the utterances; and repeated utterances with the same phonological elements are counted as words by the child. Moreover, if the key word is stressed by the adult, then this process boosts up and child's vocabulary develops. Finally, by looking at the commonalities of functional role in utterances, children indirectly learn words.

Children start joining two relevant words or 'holophrases' to express meaning around at the age of 18 months (Tomasello, 2003).

This communication-based, usage-based way of looking at things shows that it is not possible to describe the 'grammatical competence learning' of children by beginning with individual words acquired in isolation and then gluing them with abstract meaningless rules. We need to start with the comprehension and production and of whole meaningful utterances of the children. Thus, Tomasello's usage based theory of language acquisition can be taken seriously for suggesting that the language structure emerges from their language use and this is applicable at the individual word level, as their communicative function stems out from their language use as well as from their grammatical competence. In addition, structure emerges from multi- unit utterances use patterns and this is achieved through general cognitive processes. Even from the same viewpoint universal linguistic structure derives that people everywhere have the same set of general cognitive process. Usage based theory of language acquisition thus undoubtedly presents new thoughts for researchers involved in this field.

2.4 Stages of first language acquisition

Language development researches showed that children cannot acquire all the developmental factors at a time; they go through a sequenece of recognizable stages as they master their native language, for example, meaningless sounds precede single word utterances; joining two words and associating meanings comes to them much later, at the age of 1 year 6 months or 2 years. Thus it is easy to think of stage wise child language development. Although a certain stage can differ from child to child, the sequence of stage appears to be the same for all children who acquire same language (Moskowitz, 1978).

Following are the strongest and most believed research works emphasizing children's first language acquisition, according to age level or researches that discuss the stages of first language acquisition-

2.4.1 Stages: Jean Piaget. Swiss psychologist Jean Piaget discussed four (4) stages of language development which he regarded as the core to his theory of cognitive development (cognitivism). He developed these stages on the basis of children's thinking process. According to Piaget these stages are universal and the sequences of development will be same for children all over the world despite of their cultural differences. The stages are-

(a) Sensory Motor Stage (birth to 2 years)

(b) Preoperational Stage (2 to 7 years)

(c) Concrete Operational Stage (7-11 years)

(d) Formal Operational Stage (12 and up)

Piaget (1957) discussed the above mentioned stages for overall language development accounts. Among all the four stages the first two stages relate to this research. Thus, these two stages will be discussed below-

2.4.1.1 ***Sensory motor stage.*** This is the first of the four stages of cognitive development theory by Piaget. It extends from birth to around two (2) years and reflects a period of rapid cognitive growth. Initially infants use their senses and actions to build up basic knowledge of the world around them through trial and error. Through the assimilation and accommodation processes acts are gradually adapted to the world (e.g. grasping schema). One of the main developments of this stage is the understanding that objects exist and that

events occur independently of one's own actions which means that the child can represent them mentally (known as the object permanence).

Deferred imitation is another important development that occurs at the end of sensory motor stage (18-24 months). It is an important milestone in early cognitive growth. Piaget refers to the child's ability to imitate the actions they observe others perform as deferred imitation. In order to develop further symbolic and pre-operational development, deferred imitation is very important.

2.4.1.2 ***Preoperational stage.*** This stage ranges from about ages two (2) to seven (7). Children at this level can psychologically perceive events and objects (the semiotic function and engage in symbolic play). The features of this pre-operational stage are typically egocentric thoughts and interactions. Egocentrism refers to the failure of a child to see the situation from the point of view of another person. At this preoperational stage children may only concentrate on one aspect or component of any issue. A transition of this level addresses this issue along with the problems of conservation (the understanding that something stays the same in quantity while its appearance changes).

2.4.2 Stages: Jean Aitchison. Jean Aitchison (1987) identified three phases that occur during a child's vocabulary acquisition. These stages were based on her main idea of 'language has a biologically organized schedule and children following a similar pattern everywhere'. Children will of course differ independently when they reach each stage. Ultimately the language of the child will be in place and the child will have a basic lexicon of several thousand words. These stages are- a) labeling, b) packaging and c) network building.

2.4.2.1 ***Labelling.*** It is the first stage and it involves making the link between the sounds of specific words and the objects they refer to, e.g., knowing that 'cat' refers to the family pet.

2.4.2.2 ***Packaging.*** It enables a precise understanding of the range of meanings of a word. For example, understand that the word 'cat' refers not only to the family pet, but also to all the other cats.

2.4.2.3 ***Network building.*** It involves knowing the connections between words; understanding that some words have the opposite meaning. Such as, understanding the relationship between 'hypernyms' and 'hyponyms'.

2.4.3 Stages: David Crystal. According to British linguist David Crystal children acquire language through five stages which are interlaced. He did not give the stages any name but described them as stage 1 to stage 5 (Crystal, 1997).

The 'first' stage starts from naming things with individual words and continues till the child can relate to objects. Stage 'two' starts when the child begins with the use of interrogative pronouns concerning naming and classifying things. During the stage 'three' children begin to make and express more complex sentences and ask lots of questions with marked intonations. Stage 'four' is marked for communicating meaning indirectly by replacing imperatives with questions. In addition, children can express a wide variety of meaning through the use of complex sentence structures.

Children use language to do everything they need for successful communication. Such as providing information, asking and answering questions, requesting directly and indirectly, recommending, proposing, stating and expressing themselves while in stage five.

They are also able to talk about things, both hypothetically and conditionally, with references to past and future.

The stages given by David Crystal are directly related to children's development.

2.4.4 Stages: Roger Brown. Roger Brown in 1973 stated some stages of language development which were described in his book 'A First Language.' On the basis of a longitudinal study on three children (Adam, Eve, Sarah), he tried to figure out their MLU (Mean Length of Utterance) in morphemes (Brown, 1973). Brown believed that stages of development can differ according to the degree and the goal of different researches. Brown affirmed six stages of early language development, which contribute to the first words of a child and can include crying, babble play or babbling, and single words. While most babies perform these stages in an orderly manner, sounds from the previous stages can reappear. For example, we can hear "la-la-la" after the single-word stage has been reached, but possibly not as much as we have heard before. Brown's stages are as follows-

2.4.4.1 ***Pre linguistic stage.*** The duration of this stage is from birth to one (1) year. In the first month infants are found to be cooing to communicate. Cooing stage is also accompanied by crying. When the child cries he does what he can to express his feelings to others in the most basic form. The cries vary slightly in order to convey a number of different signals (like hunger, sleep, hot cold, pain, discomfort etc.). Around six months of age, cooing shifts to babbling or meaningless vocal behaviour, including strings of vowels and consonants. Typically two types of babbles are found in the children's use- 'reduplicated babbles' where the sounds are repeated such as 'bababa', 'ma ma' and 'variegated babbles' where sounds like 'ba-ba-be-be', 'ga-ga-gu-gu' etc. are varied. According to Brown this stage prepares the child to understand and acquire words initially.

2.4.4.2 ***Single word stage.*** Onset of word acquisition is around one (1) year of age. Single words are uttered of which mostly object like words are found. This stage comprised slow acquisition of approximately fifty words.

2.4.4.3 ***Early sentence stage.*** This stage starts from one and half a year (1.5) and lasts till two (2) years of age. Sudden increase of word acquisition is the main feature of this level. This is the onset of multiword utterances (like 'mummy sock') or the telegraphic stage.

2.4.4.4 ***Short sentence stage.*** Starting from age two (2) this stage can last till age two and half. This is the beginning stage of grammatical development like inflections (plural, past tense, etc.) Even grammatical structures like pronouns, prepositions and auxiliaries also begin at this level.

2.4.4.5 ***Complete sentence stage.*** Starting from age two and half (2.5 years), this stage continues till six (6) years of age. It can be called the advanced grammatical development stage as, complete (sometimes almost) grammatical sentences are produced. Use of different types of clauses (relative, complement, adverbial) is seen at this stage. Brown observed complete grammatical development by this age.

2.4.4.6 ***School age: Six.*** Complex aspects of grammar are often seen in the usage of children aged six (6) and over. Reading, writing skills, work together with speaking proficiency. Expansion of constructions through reformulation which is the ability to repeat meaning with a change in structure is a remarkable feature of this stage group of children.

2.5 Basic stages of child language development

Based on the above mentioned stages and depending on few more studies; like, Reich (1976), Clark & Clark (1980), Stoel-Gammon (1989), Tager- Flusberg (1997) the most widely taken stages of child language acquisition are as follow-

2.5.1 Vocal play. (a) Crying: Children's very first vocal response is called 'Birth cry'. It is produced to convey basic physiological needs (hunger, thirst) or to express fear, pain or discomfort.

(b) Cooing: As early as six weeks. Children at this stage make cooing sounds (like /aaa/, /uuu/ etc.) by manipulating their tongue, mouth breathing. Usually the vowel sounds occur before the consonantal sounds. Cooing behaviour specifies the infant's ability to experiment with making sounds.

(c) Babbling: Infant's sound production becomes more varied and complex when they start to babble at the age of 4-6 months. Usually babblings are produced by repeating vowels and consonant sounds such as /baba/, /kuku/ (Clark &Clark, 1980). Babble sounds are used randomly, and unlike words, do not refer to a specific person, object or event. Moreover, it can be used both before and after first word use. Sachs (1993) referred to another type of babbles which is called 'echolalic babbling', reflecting the intonation and rhythm of adult speech in the child's environment. This complex type of babbling appears in 8-10 months.

These three early stages of language acquisition are described together as 'vocal play'.

2.5.2 One word stage. Child's first words are typically those used by their primary caregivers. About one year of age, children begin to make words like units. These words are often used in a specific situation or routine and commonly found in a child's home environment. The first words are related to the intellectual and social development of the child. Idiomorphs are another inclusion in the 'one word stage' (Reich, 1976). These words might be invented; for example, a child might invent a special word for his toy or personal

things. Such inventions are considered to 'idiomorphs', they are words that are stable and used to refer to a particular object on a consistent basis.

The one word stage is significant to children's development as they use the constant language unit to communicate meaning. It is remarkable that parents and family members often adopt the child's invented words or pronunciation as a means of encouraging the child to talk. The single word stage is also referred to as the 'holophrastic stage' (specifically when the child completes a whole meaning only through the use of a single word).

2.5.3 Two word stage. After a few months of producing one word utterances, the child begins to use two -word utterances, and will continue until 2.5 years of age. Slowly single words are added to the child's vocabulary, as they usually talk about the same thing. Many of these are almost identical to single word utterances. It is like 'noun-noun' or 'noun-verb' form (mom shoe). This stage is also called the 'word spurt' or 'Naming Explosion' period. Children seem to show better understandings of syntax and semantics. And it looks like LAD is active here. The word ordering used here is the same as adults (mostly).

2.5.4 Telegraphic stage. This is the final stage of language production before the child can speak fluently. As the toddlers develop their vocabulary of speech, they begin to string the words together. This is referred to as telegraphic speech because they only use content words to communicate without articles, conjunctions, prepositions or word endings (Tager- Flusberg, 1997). For example 'daddy water', 'baby doll' etc. This telegraphic stage is significant because children are arranging words to communicate more complex messages. Children show a particular style of word learning and use a lot of naming words like 'ball, doll, boy'(might be 'word lover') or use more personal words and social words like 'hello',

'no', 'please', 'thank you' (being 'word leaver'). The telegraphic stage comprises a high proportion of frozen phrases like 'all gone', 'come on' and 'sit down' etc.

2.5.5 Beginning oral fluency. Children generally become moderately fluent in the language used at home by the age of 3 or 4 years. They use the oral language to communicate their thoughts, answering questions or to ask questions. During the remainder of the pre-school period their oral language becomes more complex in grammar and vocabulary and more varied in the ways in which they use language to communicate with others, both in their family and in their community.

British linguist M.A.K. Halliday (1974) proposed a systemic theory of language that unites earliest meaningful utterances with those needed to enact as adults. Halliday thinks that humans develop language because it is the primary resource for meaning and communication. According to Halliday, early language acquisition stages are-

(a) Function: What children endeavor to do with their language (e.g. making requests, asking questions or give statements).

(b) Meaning: The states, events and relationships that children speak about. Meaning here refers to the meaning of the performance shown. Children may have competence which they have no opportunity to demonstrate.

(c) Structure: The way in which the language is composed, its grammar.

Halliday considers Phase I of language development (i.e. The protolanguage stage) evolutionary, created through interactions with mother tongue native speakers (i.e., caregivers, siblings, etc.) and consisting of basic pairs of content/expression (not yet words, let alone higher order systems) and performing concrete functions in the world. The main functions he believes early language acquisition serves are-

- naming things
- describing things real and imaginary
- influencing the behaviour of others
- expressing feelings
- thinking and problem solving
- asking questions
- communicating - taking part in language interactions

Subsequently this phase-I stage becomes the logical and necessary precursor to the lexico- grammatical phase- II. It bridges the protolanguage to the development of phase- III, mother tongue.

2.6 When does meaning acquisition start?

The rate at which children reach their milestones in speech and development depends on a few factors and it may vary. Mostly it depends on the child and their surroundings. Some children develop certain speech and language skills faster than others and some children take longer to develop those abilities.

Children start using single word like units around at age 1year (or to 1.5 years). The one word stage is significant to children's development as they use the constant language unit to communicate. Children voice meaningful intentions before they start using language (holophrases) from much earlier in life. According to Halliday (1974) early acts of communication are certainly meaningful, but they are not yet systematic, there are no intentional choices of meaning expression even though they are directed towards an addressee. The meaning potential of the child develops through language, along with brain and the body development. The child learns to move his head, roll over, and he is becoming

increasingly curious accordingly. When his caregiver interprets his squeaks and sounds semiotically, real world significance is given to his communication acts. With time, this confluence of experiences (i.e., development of brain and body; expression/reaction) creates the conditions for emergence of stable, recognizable, even predictable signs or pairs of content/expression (Bloom, 1998).

Gradually, the child's speech and listening skills become more integrated and he starts to learn new sounds, words and meaning of non- speech sounds. Starting from 12 months- child may meaningfully verbalize words, and may babble while looking at a book. By 18 months the child may use up to 20 meaningful, jargon mixed words. (although many babies may not use recognizable words). Request phase begins at this time period. Memory is also developed in this time period (18 months onwards) and if the child hears the word at the end of a sentence (Halliday, 1974), he can remember one item.

Request is made when the child points or reaches something he/she wants. Usually the child shifts his or her gaze from the parent (or the communicating person) to the object; therefore the purpose is non-social. Development joint attention is the way to serve the social purposes is the. Joint attention comes when the child asks for something that has the purpose of being social, sharing and experiencing.

It is very important to know that although communication begins long before the first words are spoken, joint attention is an essential skill that is necessary for speech, language and social (pragmatic and semantic) development (Tomasello, 2000). It makes it easier to share intentions, thoughts, memories, observations and experiences with others. It is easier for a child to respond to another person's request for joint attention (parent pointing at a bird and asking the child to look, and the child looking at that too). The initiation of joint attention

is an indicator of the child's social motivation. As children grow older, they try to add vocalizations or words with joint attention and successful communication begins.

When the child (12-18 months) begins to use combination of gestures and words/ vocalizations to ask for things (e.g. palm spreading and asking for more or giving something), the list of recognizable words is very small and it is likely that his understanding of words far exceeds his use of words (O'Grady, 2005). Child may imitate some of the words, but is unaware of the meaning. The mixture of verbalization, vocalization and gesture enables them to communicate needs, wants, and greetings and to express their emotions. Their expressive language will be limited and serve only as a part of a much bigger picture of communication and meaning making, which only develops. The child is on his or her way of understanding more words, learning social skills (like turn taking), developing prosodic features (intonation and rhythm) in speech and using gestures as well as facial expressions.

Gradually children start using two word utterances with better understandings of syntax and semantics. Their semantic features of this age (18-24 months) include-

- comprehension of single words for objects out of sight
- listen to the simple stories
- average expressive vocabulary of 200- 300 words (by 24 months)
- says their own name on request
- respond to questions (yes/not primarily)
- some verbs and adjectives begin to be used
- semantic relations understood and spoken include-

From 18 months onwards children interact with the world around them by forming internal pictures that they have seen previously and full understanding of object permanence.

This stage is very important in cognitive development because it indicates that children see the world more objectively knowing that it exists independently of their perceptions and actions (Rochat, 2003).

One thing is very vital when studying child language acquisition which is, gender difference in language development. Gender difference plays a key role in increasing the linguistic abilities in children. Even in similar environmental conditions language acquisition differs between boys and girls (Genishi, 1988). Biological evidence shows that language processing is more abstract in girls than it is sensory in boys. There is an accepted age range in which most children begin to speak, which is 18-24 months; girls are more likely to speak at the beginning of this timeline than boys at the later end.

Studies even suggest that gender differences in children's speech also occur because boys tend to create visual and auditory associations at a time; all because the development of early childhood speech in boys' in the left hemisphere is different from that of the same aged girls' (Adani & Cepanec, 2019). But the differences fade out as the child grows up. But all boys do not lag behind or have a hard time developing their speech; it depends even on how parents help, games, activities and everyday conversation. I addition, playing and interacting helps a lot during the speech development period.

2.7 Different areas in child language acquisition

During the stages of language development, four vital linguistic abilities are developed as well. They are the phonological, morphological, semantic and syntactic fields. A brief discussion on the developments of these linguistic features will be provided below-

2.7.1 Phonological development. A child is exposed to a variety of environmental noises during the first few months of age, from which they must separate speech sounds from

non-speech sounds. But this is not the only specialty about infants' speech perception; surprisingly infants display the ability to hear the differences between the speech events and sort them into categories (Kuhl et al., 2005). Newborns possess this amazing capability to respond differently to human voices than to other sounds within two months of birth; they can even recognize the voice of their mothers to the voices of other women and perceive speech sounds as speech categories (De Casper & Fifer, 1980). Eimas et al. (1971) showed that English learning infants paid more attention to differences near the /p/ and /b/ boundary than to differences of equal sized differences within the /b/ category or within the /p/ category; they used a computer generated breathability continuum in between /b/ and /p/. Their measurement, monitoring infant sucking- rate, has become a major experimental method for studying the perception of infant speech. Few more similar experiments led to children developing the ability to distinguish between certain speech sounds such as [p] and [b] at the same age (first few months) (Abott & Burkitt, 2015). To succeed in such tests children had to successfully recognize that the differences between speech sounds were linguistically significant and used to distinguish between words in their language.

The first recognized sounds of babies are the basic biological sounds such as crying and screaming that can be expressed as food urges or discontents. Moreover, breathing, eating, swallowing, sucking, coughing and burping all have their characteristic sounds (Crystal, 1997).

With time (between age 2.5 to 5 months) baby produces more sounds other than these such as cooing and laughing. After that, the child begins to play with different sounds in order to find the correct intelligible sounds at the ages between 5 and 9 months. This time period is defined as 'Vocal Play'.

Children begin to develop the necessary articulatory movements needed to make distinctions in speech even before they master the phonemic contrasts of their language. This stage is generally known as babbling which begins at around three or four months of age. From about six months of age or so the babblings of children gradually becomes more similar to the sound pattern of the language they are acquiring (first sign of manifestation is voice pitch). Babbling increases in frequency until it reaches the age of about twelve months when children begin to produce their first understandable words. By the time children have acquired fifty words or so they begin to adopt rather regular patterns of pronunciation.

The last pit stop before the production of 'proper speech' is a babble.

2.7.2 Morphological development. Children's acquisition of inflectional morphology has been studied in a variety of languages, with most of the data coming from longitudinal records of children's speech. Brown and his colleagues published several papers that studied the morphological development of young children. They focused more on inflectional development which on their perspectives were influential in the field of language acquisition. Brown referred to inflections, prepositions etc. as grammatical morphemes and characterized some linguistic features of grammatical morphemes (Brown, 1973). He analyzed the morphological development by figuring a child's Mean Length of Utterance (MLU); MLU typically corresponds closely to their age.

Brown analyzed by breaking down each word produced by the child into morphemes and around 50 to 100 sample utterances are analyzed to come to any conclusion about the child's overall production. He described five stages of language development on the basis of MLU. Between twelve months to twenty months of age, children usually begin to say their first words, and systematic morphological modulations of these words are occurs within the

first year of interaction (Clark, 2001). Their more complex, meaningful expression includes grammatical expressions such as inflections (prefixes, suffixes), prepositions, postpositions as they move towards a more complex expression of their meanings, they add grammatical morphemes like inflections (prefixes, suffixes), prepositions, postpositions, and clitics. For example, on nouns they start adding morphemes to make distinctions such as gender, number, and case; verbs, markers are added for aspect, tense, gender, number, and person. In any particular language for some specific reasons (like acquisition of meaning distinctions, the effect of language typology etc.) children might take several years to have mastery on such paradigms.

According to Clark (2001), word is the major domain of morphological acquisition, where inflectional affixes are added to words or stems to form new words; in addition some meanings are assigned to each one of them. However, the inflection domain may go beyond the word level as inflections also mark grammatical relationship through agreement within or across phrases (for example, numbers). Although children appear to begin with inflections as modulations of the word meaning, at the end of the day attention is required to both lexical meaning and syntax, as they need to learn which words belong to which paradigms that use regular or irregular plurals (Clark,2001). The acquisition of word-formation is also challenging in the sense that, some languages rely almost exclusively on compounding to form new words, while others rely primarily on derivation. Moreover, many other languages rely on some mix of the two. Consequently, derivation may include both affixation and zero-derived forms, and certain affixes commonly appearing in compounds too. Thus, the extent to which language typology affects the learning process as language ranges range from analytic to synthetic or even agglutinative, is one issue to mark for acquisition. Moreover,

when children learn inflections, they also learn word paradigms; that is, whether a noun takes the regular plural or two or three distinct regular plurals. An irregular form and paradigmatic learning helps them serve a purpose like plural formation.

We can conclude on the child morphological acquisition by the impression that both inflection and word formation needs to be completed as they construct new forms to carry new meanings.

2.7.3 Syntactic Development. In Linguistics, 'Syntax' means the study of the rules that govern the combination of words to form sentences. As mentioned before, Brown (1973) provided a framework within which the normal development of expressive language is usually understood in terms of morphology and syntax. Though he built it up for English spoken children, but is used all over the world to analyze child's spoken language when they perform structurally.

According to Brown, children enter into syntactic 'stage 1' after acquiring 50-60 words within 15 to 30 months age; where they can say short phrases like 'that car'(that is a car) or 'birdie go'(the bird flew away) etc. Between 26 to 36 months syntactic 'stage 2' starts where present progressive tense (-ing verb), use of 'in' and 'on' emerge. Plural '–s' is also found in their language use. Continued conversation with adults with easy to imitate sentences helps children develop their language skills. In 'stage 3' (age 36 to 42 months), children begin to use irregular past tense (me fell down) and possessives (dadda's book). Copulas or linking words between subject and predicate (I am tall) also emerge at this stage. Brown's 'stage 4' is very effective for the first language learners as grammatical components such as articles, regular past tense, third person regular tense (puppy needs it) or even present tense appear in their everyday speech. Final or 'stage 5' allows children to use third person

irregulars (he does, she has), contractible copulas (they're here, she's ready) and uncontractible auxiliaries (are they swimming?). Age group of this level is in between 42 to 52 months. In his framework Brown tried to give a clear conception of early language learners' syntactic development which is actually related to child's morphological development too (Bowen, 1998).

In addition to categorizing languages in phrases and sentences, there are several types of techniques that can be used when dividing a language into smaller units. But the innate thought is that, as the child develops and grows older, the language improves and connects the right forms of words to each other in order to produce the intended expression. This can be done through a system referred to by Yule (1996) as the traditional categories that divide sentences into different boxes, such as voice, number, gender, tense and person. Yule further discussed some techniques that help to observe the process of acquisition of categories.

2.7.4 Semantic development. Unlike the acquisition of syntax and phonology, the semantic dimension of language acquisition continues throughout life. Although children's meaningful language production is waiting for the first words, even before that there is a relationship between babbling and meaning. Relations between 'babbling' and 'meaning' were usually studied at the age of twelve months (Blake & Fink, 1987). The acquisition of semantic perception and production is the base for understanding word meaning and it starts to appear in infants throughout the first twelve months and successfully continues thereafter. Thus the first twelve months are considered to be the preparatory period for discovery and linguistic creation in the field of semantics and are marked by creativity and abstract construction (Lust, 2006). Though, this time period, however, has already prepared children

for the momentous acquisition of the first words, such as the acquisition of syntax and phonology.

Universally, children creatively confront the acquisition of meaning of words and sentences, which might be distorted in child's early productions, in their early word meanings. It does, however, indicate the child's linguistic competence. For example, 'lexical innovation' is an early process of semantic acquisition; it persists in both adolescence and adulthood.

Lexical innovation happens when speakers cannot find words for every possible concept that they might want to talk about. It has resulted out in constantly renewing the already existing vocabulary stock by accepting the newly coined meanings that are used (Clark, 1982). There are two types of lexical gaps that are needed to be filled through lexical innovations; among them 'momentary gap' is usually built up by the children. Like adults, children may experience momentary gaps when they find difficulties retrieving a known word form and fills it up with new words made on the spot. Clark used examples from his data collected from a three and a four year old child, which are- 'sleeper' (used in lieu of bed) and 'pourer' (used instead of a cup). Chronic lexical gap happens when there isn't any word conventionally used to express the particular meaning. Children sometimes fill themselves but unlike the adults do as they don't have sufficient adult vocabularies. For example, 'plant man', 'needle' 'tool man' are used instead of words like 'gardener', 'mend' or 'mechanic'. Children may experience momentary gaps like adults when they face difficulties retrieving known word form. In such cases, they might create new words on the spot. Clark added two examples from his observational data- use of the words "sleeper" and

"pourer' (instead of bed and cup). These momentary forms are often corrected when the right words come through.

Children exhibit two specific types of acquisition features during their holophrastic or single word stage (when they have a vocabulary of 50 words or a few more); first, overextension tends to overuse their rather small vocabulary referring to more objects than justified. For example, the word ' dog 'can be over extended to all the four legged animals around them.

This can be applied judging from similarities of form, sound and size (sometimes also texture); ball for more round objects, scissors for all metal objects etc. In children's semantic acquisition level, over extension is a common strategy and later on narrowing down the use of words form there is general. However, over-extension does not mean that the child not able to differentiate an apple from other round objects when he is asked to present. In this regard, Yule (1996) mentioned that over extension does not need to affect speech comprehension. Secondly, under-extension, a common feature of child's expressive language. When the child uses a word with a narrower meaning than that of an adult, it is under-extension. An example is the use of the word cat for the family pet only, not using it for other cats. Over-extension occurs more often than under-extension and is the main semantic error made of young children (when a child has a vocabulary of 50 words, it is estimated that about a third of these are likely to be over-extended).

Another remarkable aspect of semantics is the way in which lexical meanings are affected by the use of hyponymy. Yule defines this concept as "When the meaning of one form is included in the meaning of another [...] and some typical example pairs are daffodil – flower, dog- animal, poodle – dog, carrot – vegetable" (Yule 1996:119). He added that

children usually use the middle level in a hyponymous set, like from the set 'animal-dog-poodle' they will choose a dog. But, the worthiest selection through rational thinking would have been the most general term 'animal', then why do children pick up the middle level? A possible answer to this question could be the use by parents of the 'middle level' rather the use of flowers or other lexical item such as a plant or Tulip (Yule, 1996). Antonymous relations (separating words of opposite meaning) are also important for semantic acquisition, as these functions are needed in later stages of language development, somewhere after age five (Yule, 1996). For example, if they had to answer more or less questions. Another common phenomenon is over generalization. It means implying the newly acquired language feature too broadly and to considerable extent. The rule of adding –s or –ed to create plural is sometimes over-generalized. For example, children might use 'foots', 'mans' after they acquire the knowledge of using –s to words like cats, girls or creating past tense like 'goed', 'gived', 'drinked' etc. David Crystal (2003) added another irregular feature 'mismatch' in children's semantic acquisition. According to him using a completely different word to mean something else is mismatching. The use of 'tractor' to mean 'telephone' is an example of semantic mismatch (Crystal, 2003).

In addition, semantic analysis of children focuses on what can be characterized by word, phrase or sentence rather than what can be associated with them (Yule, 1996). For example, 'needle' can be described as a thin, sharp, steel instrument and it can also be connected to pain which is personal association. Usually children are not qualitatively different from adults in word acquisition methods. Though not solely concrete in perception and reasoning, they are capable of semantic displacement and categorical thought too (Lust, 2006). They are involved in creative theory construction and word meanings are created

through computation and pragmatic reference. Moreover they are creative and systematic in their indirect environment use too. In her opinion, abstract and complex linguistic computation takes place in the acquisition of language by children. Language and non-linguistic cognition are essentially independent in their language development, but they share continuous relationship (Lust, 2006).

2.8 Empirical research on first language acquisition

Studies on child language development paved the way to more specific and improved methods in the early twentieth century. Improved in the sense that, previously in this field only 'baby biographies' were done; where a child development scientist (almost always a male person) used to observe infant (or infants) and wrote elaborately all about their behaviours along with the researchers own impressions about the observation. And these infants or subjects were named as 'convenient sample' as in most cases, they were the researcher's own child or close relatives. In the year 1898 the first woman to study child development was Milicent Washburn Shinn. She received her Ph.D. degree from University of California on 'The Development of a Child'. Later she published her book as "The Biography of a Baby" (1900). Shinn started collecting data from her college days and ended up with a mass storage of data, thus her study was a kind of milestone in this area as it was the foremost form of a longitudinal study in the field of child language acquisition.

G.Stanley Hall (1846- 1924) is known as the founder of the child study movement; he started his work along with his student Arnold Gesell (Koelsch, 2002). Stanley's theories were based on evolution as he was heavily influenced by Charles Darwin. He first started observing large groups, which later became a new gesture for future study. These two scientists had very different takes on children. Observing and measuring all areas including

motor, social behaviour, personality, interests, fears etc. Stanley thought of young children as savages. Thus, he did not find it necessary to use reasoning with them, instead he thought the necessity of discipline and controlling over them. His approach was resulted in a normative approach defined as "using stages of development, matching ages to ability or skills and using the milestones approach" (Dryden et al. 2005, p.68). On the other hand, Arnold believed in raising children in a permissive approach (where parents show lots of love towards their children but provide little discipline) where sensitivity and responding to a child's cues should be incorporated. Gesell wrote many books in this area and one of his books *Infant Child in the Culture of Today: The Guidance of Development in Home and Nursery School* became the first book for parents (Gesell et al., 1943).

Starting from 1877 till 1930 the study of child language development was limited to 'diary studies'; which was usually done by a parent by continuously recording a child's (the observant) day by day development in a diary. Along with the children's other kind of development, most of the studies were on syntax. This method is still used in studying child language development, but the basic difference is, now it has been made specific and not only limited to writing in a diary. The second period of study began with the advent of D. McCarthy's book *The Language Development of the Preschool Children* (1943). Here research was done on large numbers of children across different ages. This could be taken as the first systematic attempts to study development. Since 1957 there has been a marked change in the approach to child language studies. Instead of analyzing only utterances, attempts were made to understand the hidden rules behind production. Such studies were the beginning towards the linguistic analysis of child language studies. The reason behind the

sudden change in approach was due to the establishment of transformational grammar by Noam Chomsky.

Psycholinguists working on 'Cognitive and Developmental' issues, think of language acquisition as one of the most fascinating features of human development that usually begins after birth and continues until school age. Karmiloff and Karmiloff stated that, "from the six months of gestation onward, the fetus spends most of its working time processing the very special linguistic sounds, growing familiar with the unique qualities of its mother's voice and of the language or languages that she speaks"(Karmiloff & Karmiloff, 2001, p.2). They claimed that hearing system of the human fetus is adequately developed within the first twenty weeks of development, to process the sounds being filtered through the amniotic fluid. The voice of mother, conversations, heartbeats and other sounds about the environment fill their world. Thus linguists who deal with cognitive and psycholinguistics believe in the acquisition of human language beginning with the fetus.

Depending on different first language acquisition theories and assumptions, huge numbers of researches have been done on children's first language acquisition. Among them some of the empirical research work that directly relates to several issues in child meaning acquisition process will be discussed here.

Curtin and Werker in their research focused on how early infant speech perception abilities influence the foundation of language development, including early word-object associations (Curtin & Werker, 2007). They believe, early word learning is shaped from children's primary speech perceptions which results in a growing lexicon and thus linguistic categories emerge from that. This whole process starts when the child becomes capable to sort out the speech sounds from non-speech sounds. Research proves that infants are more

interested in listening to speech sounds more than non-speech sounds as the latter tend to be complex in nature (Curtin, 2009); Even infants have biases and preferences for certain types of speech signal which at the end facilitate language acquisition. Some research also shows that the basic psychoacoustic and cognitive abilities which are essential for speech perception come to children at or just before birth (Dehaene & Lambertz et al. 2002).

Lecanuet et al. (1995) discussed on young infants' amazing ability to discriminate different speech sounds such as the stop consonants and some vowel categories; Infants before the age of 6 months discriminate against a wide range of vowel and consonant contrasts in their native language as well as contrasts found in other languages. Infants between 6 and 9 months develop knowledge of phonotactic regularities along with the identification of specific sound categories (Jusczyk et al, 1993), whereas phonotactic indicates to the language specific co-occurrences of speech sounds in different syllable positions. Gradually, these individual processes lead to acquire spoken words. As, spoken words form continuous stream, infants distributes them in smaller segments and learn them. According to researchers this process of segmental learning starts between the age of 6 and 8 months (Bortfeld et al, 2005). The process of learning words then is boosted up by infants growing interests on prosodic cues over segmental cues. Infants' inbuilt magnificent ability with the help of already stored information helps them learn new meaningful words.
By the end of their first year, infants learn what
information is important for word recognition; even knowledge gathered during this time peri od provides the basis for building a lexicon.

Though not an easy task, but with the help of stored forms, infants gradually enters the process of mapping words to meaning (Jusczyk et al.1999). Early word-object associative

learning occurs only when children hold on previous information on sound pattern of words and could link them to the concept. To test whether infants could use phonetic detail to direct word learning, Werker et al. (1998) outlined an associative learning task known as the 'Switch Task'. In which with the help of familiar word-object pairing infant's ability to find phonetic similarities in words is tested. They found that at the age of 17 months, infants gradually succeeded in matching words phonetically, which led to the learning of words associated with objects.

The results of the studies mentioned above indicate that there are numbers of factors involved in early word learning. Issues such as whether the vowel or consonants will influence the outcomes or the successive amount of infants stored information about the sound sequences that make up the words and match the sequences to the meaning of the words- object learning process (Stoel & Gammon, 2011). Researchers even show that though there might be few instances of infants failing to detect fine phonetic detail, they successfully learn meaningful words. The findings in this paper provide some basic information on the speech perception process during the first couple of years that influence several other first language acquisition issues in an infants' life; but how their early language acquisition act in influence advance language developmental events is not clearly mentioned as the authors themselves have taken that as further research scopes.

Clark (2003) in his work focused on exploring the process of adding words to children's existing vocabulary and learning the word meanings carried out by them. He talked about infants' amazing abilities to pick up new words quite readily and adding more to the list sometimes just from a single exposure. Gradually single words are combined into longer utterances and comprehended rather quickly by accumulating a larger vocabulary and

surprisingly between the ages of one to two children learn to produce up to 600 words. Clark mentioned that children infer possible meanings of unfamiliar words from conversational flow, thus adults are their major source for early word acquisition (p.283). They watch others speaking, observe their contextual usage and try to follow the same procedures while communicating their intentions.

Mainly in this paper Clark discussed two approaches that explain the enormous field of lexicon or vocabulary acquisition of a language by the children. First approach assumes that children might start with an inbuilt constraints that might be assigned to possible meanings of firstly encountered specific words; Markman (1989) characterized three constraints- a) whole object constraint assumes that any unfamiliar word picks out a whole object (a cat, a bottle, etc.), b) mutual exclusivity constraint assuming one single term applicable to each object type ('Dog' for all types of dogs); and c) taxonomic constraint assuming each term picking out a single category type(cat, swing etc.). Notably, these constraints limit possibilities in applying preliminary meanings of new words, but eventually they are overridden or discarded as they are not compatible with a vocabulary structure or not do not reflect how adults talk to children in practical life. Adults use terms of objects when talking to children for actions, properties and relationships; they even take advantage of different viewpoints on objects and events. But the questions that arise from the acceptance of the first approach are how do children learn the meanings of words for actions, properties or relationships? And since when do they start dropping earlier constraints to accommodate to the new circumstances? Thus the second and alternative approach assumes that children adopt almost the same pragmatic assumptions about communication as the adults (p.285)

That is, from the very beginning children start with some fundamental factors of language communication exchange such as joint attention, physical co-presence, conversational co-presence (Tomasello, 1995). When adults talk to each other these factors are taken for granted by them, but with children these factors should be taken seriously as children must learn how to connect with to the spoken words and the events being spoken of; they also need to learn the words to world and world to the words mappings in order to assign meanings. If children are not attending the conversation, there is no point in giving input, thus in adult child exchanges joint attention is a must accompanied by physical co-presence. Moreover, very young children observe both contrast and conventionality in a language like adults, thus for certain meaning specific words should be used from the very beginning. These pragmatic factors influence meaning acquisition of new terms. Conventionality leads children to seek appropriate terms to express the proper meanings. They follow adults to get the proper usage and pronunciation of words and to get words for the world around them.

Heibeck and Markman (1987) focused on 'fast mapping', the process of uptaking a new word on how it was used for the first time by the adults. As children's fast mapping stems from observations of actual uses, their early meanings typically overlap to a considerable extent with the target adult meanings. Early limited resource makes children over-extend some of their first words (e.g. dog for all four legged mammals, basketball to any round object). But as per research, children who make such overextensions in production do not make them in comprehension (Thompson & Chapman, 1977). Over extension vanishes as soon as they learn appropriate words for different areas of the original over

extension. In this paper the author also discussed the role of context and syntactic frames in children's first meaning acquisition.

Putting meaning together is another important issue to consider for researching child meaning acquisition. Clark discussed how children start to join two words together to make meaning (like 'more milk, 'ball there') between age 1; 2 and 2; 0. According to L. Bloom these meanings are context based (1971). But as soon as children start adding inflections on nouns and verbs as well as other grammatical morphemes, their early word combinations become clearer. Gradually they learn to use function words and parts of speech information (distinguishing proper nouns, count nouns etc.). Clark added how increased vocabulary make children be organized into semantic domains; for example comprise all their words for animals and their babies along with some super ordinate terms like 'animal' (gradually classified to mammals or others); their first term for fruit (apple or orange) may be overextended to a range of other small round objects like ball, grapes, doorknob etc. But interestingly, children who make such over-extensions in production do not do the same in comprehension (Thompson and Chapman, 1977). Very soon their over extension process replaces by communicative strategy where they stretch resources to look for words they lack for. This process of over- extension vanish as soon children acquire (even by asking innumerable 'what's that?' questions) the appropriate words in different areas of the original over extension. Besides, new words are most of the time offered to the children by the adults through the use of specific syntactic frames (like, this/that is a... or what is this/that?) (Clark &Wong, 2002).

Usually by the age 2;0 most of the children can combine two word utterances with the words they already know but these utterances bear contextual meanings. Gradually by the use

of inflectional verbs and nouns and other grammatical morphemes, children's early word combinations become clearer. With the help of increased vocabulary, semantic domains can be organized. Some domains take years to acquire, but positively many domains become interconnected by the shared common terminologies. Eventually they acquire lexical meanings, but part by part.

Clark (2003) concluded by emphasizing the children's way of meaning mapping with the help of physical presence and joint attention with the adults. Moreover, communicating factors like gaze, gestures are must for children to express desired meanings. Added to that is the importance of the role of semantic domains that enable children to learn about words and their uses in context. Thus, it is the major responsibility of adults to provide children with added information on objects, actions, properties or relations and of course the contexts in use.

2.8.1 Empirical research on first language acquisition in Bangladesh. In Bangladesh perspective, child meaning acquisition process or in a broader sense, child language acquisition has never been an area of much interest. A few research articles has been published more on the overall language development of children and in some cases emphasizing areas like stages of development, child directed speech, morphosyntactic or lexical development. However, the above mentioned systematic study of child language acquisition or even the primary diary studies have not followed specifically in exploring the vast area of child language development. But a few research works is shedding light on a small number of specific areas of child language acquisition in Bangladesh perspective. They could be taken as a pioneer in Bangla perspective and at the same time influencing for this

research as well, I have included works that are relevant to child meaning acquisition process in Bangla as well as Bangladesh perspective briefly in the next segment.

Author Afia Dil tried to characterize and classify 'Baby Talk' in 'Bengali Baby Talk' (1971) as an indicator of social roles like, age, kinship and sex. She mentioned in her paper the work of many previous researchers like, Charles F. Ferguson (1977), Otto Jesperson (1922) or by Edward Sapir (1921) on baby talk; which were done on the basis of field work and observation on different cultures. In this paper she referred 'Standard colloquial Bengali of Dacca' as Bengali and referred to baby talk as 'adult's talk to baby'. She agreed with Jakobson's view on accepting baby talk as the medium of closer communication between the adults and young children. She believes on baby talk originating from the viewpoints of adult on shaping a communicating line between them and the children; and babies do not have any role played in baby talk construction. How Bengali spoken adults speak up baby talks and how it constructs pre-language structures in babies was also discussed in this paper. Grammar and phonological features of baby talk like the use of specific lexical items, the presence of relatively few sound and permissible sound patterns is discussed with relevant examples taken from Bengali speakers are also presented here with much importance.

Target of this paper was to explore baby talk, which from the author's point of view accelerates children's language acquisition process. Her attempt to use baby talk in revealing a cultural pattern also makes this paper a pioneer in this field in its own right.

Another paper on child language development was published in 2008 by G. Ara, titled 'Shishur Bhasha Arjon: Prothom Atharo Mash' (Child Language Acquisition: First 18 Months), where author focused only on describing children's language acquisition only of the first eighteen months of life. From her personal experience she specified some linguistic

as well as physical developmental features that occurs to a child; like when he laughs at his mother, pronounces the front or back vowels with specific length etc. Besides, his primary language development along with phonological changes and stages of first word utterances has also been discussed here. What is worth mentioning about this paper is the author's attempt in producing a clear sketch of a child's primary meaning acquisition process by describing a child's month wise (0 to 18) process of meaning making. She said that at month 8 child starts using meaningful words like calling parents by looking at them or looking for a crow with the sound [ka] etc. But this is not their first attempt at making sounds, until now they created many phonological patterns which could not serve as words because of lack of meanings. But literally they served communicational purpose with their caregivers. At this age a child uses only the content words, no function or abstract words of his language is found in his language use. Meaningful simple three word sentences can be heard sometimes. They can get meaning change from intonation changes of words. According to the author even a few systematic sound changes are also found in a child's use of language within these 18 months. A brief idea of how a child acquires meaning from individual sounds to simple structured sentences can be gathered from this paper as though it does not give much to the study of child meaning acquisition. Only a partial view of child's overall language development at the primary level can be understood from this attempt of work.

Another work in this regard has been done by S. Nasrin (2008) entitled *First Language Acquisition: Grammar in the Speech of a Two- Year Old Bangladeshi Child.* Here, researcher tried to present a brief sketch of a two year old child's grammatical representation found in her everyday speech. Researcher included issues like phonological, morphological errors and syntactic relations. This paper in a sense creates controversy by trying to present

data on the basis of only a couple of days' observation and taking the findings as regularities. Moreover an unstructured mixture of traditional grammar and applying partial linguistic perspective of analysis is presented in this paper. Moreover, grammar acquisition is a very important and crucial role player in early language acquisition study (like in the speech of two years old).

If the above studies (that have been done in Bengali perspectives) have been observed, we can see that semantic acquisition has not drawn expected attention. This research is thus significant for trying to present a descriptive analysis of the Bengali children's meaning acquisition process from linguistic perspectives and it is a primary work.

Moreover, as meaning development is a vital part of children's cognitive development process, the findings of this study will also be important to psycholinguists, language therapists and researchers interested in applied linguistics.

2.9 Research questions.

So it is in the formation that I locate this study of the Bengali first language acquiring children using their natural environment and surrounding settings. I want my research to be partially participatory in nature and observe the creativity of the young language learners which will help me understand, co-construct and co-script their lived experiences and construction of meaning expressions. The usage based approach allows me to do that by being reflexive of my own agendas, and 'expertise' in the field of academia. My goal is to be a part of the Bengali spoken children's journey and in the process build a dialogical engagement between the participants and me. So I have designed the following three research questions that would allow me to listen, understand and co-construct the context of semantic acquisition for the research community. The first question would allow me to understand the

importance of immediate environmental input on the ongoing process of a child's meaning acquisition course, and in turn support me to understand how these constructions guide their language development progressions. The second question would shed light on language categorization as a vital issue in the process of meaning making or how they enact their cognitive ability to categorize language into meaningful wholes. Finally, the third question would help to identify the relationship of lexical learning with meaning acquisition as fundamental to a child's language development process.

Accordingly, the three questions guiding this research are:

RQ.1: What is the role of surrounding environmental input on children's meaning acquisition?

RQ 2: How does categorization influence children's meaning acquisition?

RQ 3: What is the relation between semantic acquisition and lexical learning in first language acquisition?

In the following chapter I provide a navigation map of how I conducted the study to engage with these research questions.

CHAPTER 3

METHODOLOGY

A few years ago, when my son started to talk for the first time, I was amazed once again by the innate power almighty has given to all the children of the world. I watched his language growth in every stage and kept thinking of the process of his sense making. How magnificently a child shifts from the babbling stage to the utterances of indefinite sentences impressed me totally. The innocence and simplicity of a child and the enormous curiosity that life holds for him at all the stages of language acquisition made me wonder about the process of meaning acquisition. How do the children acquire meaning out of their environments? All the time it cannot be imitation that helps them mean what they want to! The starting point of this wonderful journey interested me more, especially the acquisition of meaning. It has inventiveness, and I feel it is in the core of a beginner's language development process. As I continue with my doctoral degree now, I think of a qualitative study to investigate child meaning acquisition process as an inseparable part of their overall language development course.

In this chapter I introduce the reader to my methodological considerations and frameworks of my dissertation project. I begin with the foundation of my chosen methodology and next some pertinent details of participant observation and semi- structured interviews of qualitative methods are shared which shaped this study. The last section of this chapter highlights the actual process and use of data collection.

The opening point to understand the reality experienced by children could be by getting the thick and rich descriptions gathered from children. Ryle (1949/2009) first coined the term and later Geertz (1973) applied it to ethnography. Thick description refers to a

comprehensive account of the field experiences in which the researcher identifies and contextualizes patterns of cultural and social relationship (Geertz, 1973). Moreover, like my children, all the children of the world naturally explore meaning as a part of normal language development process; and seeing children passing these stages of language development successfully is a phenomenon to be explored.

3.1 Politics of methodology

Methodological paradigms have always been a part of scholarly endeavors. The dominant discourses of social scientific inquiry identify methodology to have an objective perspective that is an independent and value free enterprise (Anderson, 2004). Accordingly, methodology might dictate a specific way of doing research if it is as a discursive construction. Researchers choose their preferred methodologies all the time based on the kind of their research inquiries and theoretical framework of knowledge. In many instances, the qualitative approach to finding research answers also helps to foster a relationship of com monality with research participants.

Inquiry into child meaning acquisition is a sort of field research which allows the researcher to go into the field and observe the participants in their natural state. Researchers make extensive notes based on the observations. The notes and data that are gathered can be then analyzed according to a variety of different criteria. Before discussing the method, it would be nice to present a brief discussion of qualitative research.

3.2 Revisiting qualitative research

According to Babbie (2004), qualitative field research is a form of study where a social phenomenon is observed in its natural habitat. Talking about strategies and practices of qualitative researchers, Denzin and Lincoln (2011) said, "Qualitative researchers deploy a

wide range of interconnected interpretive practices, hoping always to get a better understanding of the subject matter at hand" (p.4). It focuses primarily on 'why' of a phenomenon rather than 'what' of it, and depends on the experiences of human beings as the key meaning- making agents in everyday lives. Accordingly, qualitative analysis includes the study of the use and compilation of a range of analytical materials, case studies, personal experience, introspection, life stories, interviews, objects and cultural texts and creations, as well as observational, historical, interactive and visual texts (Denzin & Lincoln, 2011).

A qualitative research to find meaning in the Bengali children's language acquisition process focuses on language and communication inquiries. It can help to find the actual development in this field. The researcher finds it logical that- if age relevant meaning acquisition process of children can be sorted out, children will benefit as they will get proper instrumental as well as developmental help from their surroundings and caregivers. Moreover, linguists working in this area will also have a better chance to explore the overall language development concern of young children.

Qualitative research is interdisciplinary in nature and its key assumption is that the knowledge is subjective and learning can only take place from the research participants from their own meanings of lives (Sutton & Austin 2015). Scholars from anthropology, sociology, education etc. use it frequently. There are several various investigating methods and approaches that fall within the category of qualitative research, such as case study, politics and ethics, interviewing, participant observation, participatory investigation, visual methods and interpretive analysis (Denzin & Lincoln, 2011). In every analysis, researchers follow

a daily commitment to use more than one interpretive technique as each practice makes the e nvironment apparent in different way.

An appropriate way to realize what it means to take a qualitative approach to research is to differentiate it from the quantitative research. Some of the key differences are:

(a) Qualitative research focuses on words and understandings, whereas quantitative research primarily focuses on numbers and measurement.

(b) Qualitative research does not require the use of standardized measures to fit people's experiences/ perspectives to predetermined response categories and assign numbers to them. Quantitative methods are constrained this way.

(c) Qualitative research values openness and flexibility, whereas quantitative research values control.

(d) The researcher is the key instrument tin qualitative research for the collection and interpretation of data, but quantitative researchers prefer to maintain an objective and detached stance in data collection.

(e) Qualitative research generally collects data from a small sample that results in a Rich understanding (less generalizability). On the other hand, quantitative research tends to collect data from a large sample and come up with broad generalizable findings (known to be parsimonious).

It is notable that both the methods have their strengths and weaknesses and may perform as alternatives, however, not mutually exclusive research strategies (Dornyei, 2007).

3.3 Research Design

An exploratory, descriptive and contextual qualitative research design was used in this analysis. Exploratory acts are performed to discover something or to find the truth about

something. Burns and Grove defined exploratory research as "research conducted to gain new insights, discover new ideas and/or increase knowledge of a phenomenon" (Burns & Grove, 2001, 374). As a result, the researcher entered the research field with curiosity from the point of not knowing.

The descriptive approach was adopted for collecting data which can help to collect accurate data and provide a clear picture of the phenomenon. In this study descriptive approach was particularly appropriate because accurate and authentic description was required.

Contextual studies focus on specific events in naturalistic settings, which are uncontrolled real- life situations in general referred to as field settings? Usually research done in a naturalistic setting refers to a manipulation free inquiry (Crowe, et al. 2011).This study would be done where the participants are at their most relaxing and natural environmental state.

3.4 Methods

In this section of methodological inquiry, I clarify the methods I chose to engage with my research community which is- 'the young children'. The method section will be described by providing the context of the site where the research was conducted, followed by a presentation of the sampling, data collection, data analysis and evaluation procedures used in this study.

3.4.1 Site of research. In this research I have observed six (6) children in their natural environment. Three (3) of them were girls and the rest three (3) were boys. Five of them live in Dhaka city which is the capital of Bangladesh and one boy named Mro (name made up for this research) lives in Sonargaon which is a part of Dhaka division. For the

convenience of data collection and transportation, children were all selected mainly from Dhaka, though they all lived in separate areas. My research sites were the participants' homes, mainly but sometimes we went somewhere out together to bring friendly changes in the observation process. As the participants were from different families and different environments, the chances of collecting diverse data for my research were higher. Because of my own work schedule and other commitments, it was not possible to maintain fixed timings to visit the participants. Thus, observational sessions were scheduled according to feasibility of both parties. I used the snowball sampling technique as a way to locate research community insiders. The snowball technique produces a study sample through the process of referrals after the initial contact has been made with the primary participant. In this way my one participant helped me to select another.

A participant girl named Ikra lives in Banani which is one of the crowded areas of Dhaka city; with Dhaka's congested traffic it took me almost one and half hours to reach their house every time. After a few visits, the family got comfortable with what I was trying to do and I was welcome to stay there as long as I wanted to. The child was jolly and fun loving, so it was quite easy to interact with her. The surrounding environment was homely which helped me to work without any serious distractions.

Simran is another child who lived in the same apartment where Ikra lives. I always tried to visit her on the same day with the other child (if my observation hours permitted me to), but it was not possible all the time. The child had a different sleeping schedule and she did not always feel interested to interact (or be present in front of me) with me. Most of her attention was towards what her other two sisters and the young home assistant girl (11or 12 years old) was doing in the other rooms. Thus, working with Simran was not as smooth as it

could have been (which is normal if participants are too young in any research study). Besides, her mother never wanted me to stay longer or I can say for any extra minutes after my observation period was over, mostly because she had to go out for some household works or for the girls' coaching classes (or maybe she did not want any extra person staying for so long), which bounded me with a sense of 'time shortage'. Though she never told me directly to leave early, she expressed that in her facial expressions or by saying that the girls' should get ready now as they have to go somewhere.

Fuko is the child who was closest to me, he loved me, enjoyed my staying period. Data collection was fun with him all the time. Sometimes I visited his place and sometimes he came to mine. He enjoyed spending time with my two children, which benefitted me to get a natural environment to observe the child when he was too involved in playing with them.

Sunny another participant boy, assisted me in this journey. I visited their house to collect data which were 15 minutes away from my house. Though his mother was a bit formal all the time, I did not face any problems in collecting data because she never interfered with my work and always kept herself busy in her household work. Sunny, I must say is one amazing participant as he was too active, doing so many things at a time and most of all kept talking throughout the whole time period. As the research purpose was to collect data on child meaning acquisition process, I was benefitted by the child talking a lot and getting involved in many activities. It helped me to explore the way he wanted to express something.

Mro is the child who lived with his parents and grandparents at Sonargaon. He is the only child of his parents and even the only baby at home. So he was taken care of by almost

all of the family members sincerely. His mother started to show him word books when he started speaking single words. I visited Sonargaon at least 2/ 3 times per month, and I used to set my observation schedule with him accordingly. Their family was known to us for many years, so there were no disturbances or discomforts while working with this child. Even his family also tried to help me by giving as much information as possible.

Anna is my own daughter, so I didn't have to make out time for her exclusively. It might look like, data might be biased as I took my own daughter as a participant, but I personally experienced that she was proven to be beneficial for my data collection process. As I spent enough time with her I had chances to compare her language development with the other participant children very easily. She sometimes gave me clues about what I can focus on next time when I meet the other children. Even her relationship with her brother 'K' helped me to see how she expressed her feelings and make meanings out of contexts while she played or shared things with him. For example, if she did not want to share a toy or a cookie with her brother, she hid it under her or simply sat on top of it. Later when she saw broken cookie, she expressed her amusement also. So for me, I was not biased towards her, but she added features to my data. Moreover, unlike studying specific developmental areas (like the verb, tense, noun, etc.) meaning acquisition process needs to be studied keeping in mind that it will end up by expressing what is seen but is not told. It needs to be explored as we know children are expressing meaning, but we don't know how. And natural setting and friendly environment ensure the success of the inquiry.

My participating children lived in separate areas, belonged to different social and family environments, had separate opinions about toys or other things, or even spent time in their own ways; but what I realized is that despite of their personal differences in my sessions

with them did not differ much in its basic forms. Like how should I approach to their homes, to them and be comfortable both with the environment and the children.

There was no separate room for the children as they were too young to stay alone (this is normal in Bangladesh perspective). Children do not stay in a single room for a long time, so whenever I went to any of the houses, I used the living room, master bed, guest room or even the veranda also for spending time with them. My focus was only on keeping the participants comfortable and not letting them be aware of the fact that they are being observed by someone. As Ikra had an elder brother, she used to play with the same toys as her brother, like blocks, cars, broken part of cars etc. Sunny also played with his elder sister's toys, like musical doll, tea-set, plush toy etc. He had few cars and balls of his own. In both of the cases the children shared toys as they had older siblings. But Mro and Fuko being the only child had toys of their own choice (or to be more specific as their parents bought them). As they are both boys they had toy cars mainly. If seen carefully it could be realized that children who had sibling(s) had the mentality to share toys and games, but single child had a world of their own.

I had the feeling that the environment was happy and sound for all of them, moreover children of this age group do not get bothered by these issues. But again, children with siblings spent better time as they get play mates. Even they had more vocabularies and language use than the others. The child Fuko had less vocabularies and he even started talking late as he spent the whole day with the maids. That means surrounding environment and interactions with others are very much important for child's natural language development.

As I have mentioned earlier, we had most of our observation sessions at home, but sometimes we went out(me, my children, the participant and his/her mother) to a park, for shopping, to have some snack somewhere only to have a different atmosphere for a change. That helped me to observe how the child copes up or reacts in a new environment, because I believe that anything monotonous cannot result out in good. Moreover, changes always refresh human mind.

This study is a longitudinal cohort study in nature to study the developmental process over a long period of time. Longitudinal observation research data are collected from the sa me subjects repeatedly over a period of time and the changes are recorded. I've seen most of t he participating

children almost from the time they've just started talking and continued until they have been able to make sense on their own.

Name	Sex	DoB	Sibling(s)	Location	Mother's Profession
Anna	F	8/2/12	1Brother	Banglamotor	Working
Ikra	F	1/1/13	1Brother	Banani	Home manager
Fuko	M	26-01-14	--------	Jigatola	Working
Sunny	M	17-09-12	1 Sister	Central Rd.	Home manager
Simmi	F	14-11-12	2 Sisters	Banani	Self Business
Mro	M	21-04-13	--------	Sonargaon	Home manager

Table 1: Participants' Demographics

3.4.2 Data collection and sampling. Qualitative data collection methods are important for impact evaluation as they provide information useful to understand the process behind observed results and assess changes in people's perceptions. Creswell (1994) places the most common procedures for collecting qualitative data in four categories: observations, interviews, documents, and audiovisual material. And the researcher typically has some kind of framework (may be sub-purposes) that determines and guides the nature of the data collection. For richness of data and triangulation of findings, I used multiple methods for data collection. Triangulation of methods helps validate the findings by comparing the data from different sources (Lindlof & Taylor, 2017). Triangulation is a strategy that adds rigor, breadth, complexity, richness, and depth to any inquiry (Flick, 2009).

3.4.2.1 ***Observations.*** This research used the 'overt' direct 'unstructured' observation as (a) the subject and individuals in the environment knew the purpose of the observation and (b) it looked at natural occurrences and provided qualitative data. Williams (2007) captured the essence of observation by saying that, an observer of an approached group (the participants) must engage in observing at a level that is more than mere looking. One should put in a constant and conscious effort to capture what is unfolding in front of him/her.

Some questions that helped to do so are like:

a. Who are my participants?

b. How is the setting constructed?

c. How am I interacting with them?

d. What can I do to look beyond the superficial meanings of interactions?

e. How can I get what I am intended to find out?

I used the observational method mainly since it is one of the primary forms grounded theory data collection; moreover, it helps to understand phenomenon in their own settings as they occur on their own terms and naturally (Dearing, Waters & Rogers, 2005). Accordingly, Observation often supplements more structured techniques such as interviewing individuals and groups because this allows the researcher to distinguish between what subjects say and what they do. I systematically observed, meaning making process of the participating children as in particular, I was interested in finding patterns and the ways in which the children acquire meaning. A good observation should be maintained with high ethical and moral standards and observational researcher should try to understand a phenomena in its own settings and in its natural terms too (Dearing, Waters & Rogers, 2005). I would go to their respective houses and stay for as much quality time as I could avail to observe the children. One of the key concerns I had during my research planning stage, was the notion of privacy which went along with ethical issues. Couples of the observant children were well known to me, so their parents did not want me to share some of their family or household conditions with others that were visible to me during my stay at their places. Privacy is an issue which is vital if a researcher is using direct observation as data collection process. So, their request about keeping things in me along with the children's actual names was a genuine demand and not a problem at all.

During the whole period I wrote down the features or necessary data in short but understable forms in my copies that I made out for all the children separately. Later, at my free time I transcribed them in detail. Meaning acquisition is not like verb acquisition or acquisition of any grammatical feature that could be recorded continuously with a tape recorder or any video recording system. It is a gradual process that occurs slowly and

children do not keep doing things or say something constantly to express meaning. Children are not likely to sit in one place, they ran all over the house and I had to be very careful about hiding the recorder from their eye sights, as whenever they saw the recorder they wanted to take it, listen and record rhymes, songs and non-sense sounds for fun. Few acts of smartness (like opening a box, judging a toy car, trying to fix a doll's head, speaking to someone's photograph, telling rhymes etc.) have been recorded occasionally. Moreover, children go through the 'Hawthorne Effect' too, which means changing behaviour only because they are being studied.

On some days, I could conduct almost five hour long observations and interactions with a particular child (if needed). But on some days simply nothing would happen; that specific child might not cooperate for being pre-occupied with some other plans (like playing with a new toy, going to neighbours' places to play etc.). But that was completely alright as children's such ignorant attitude are also part of their meaning making process. I would sit, talk to the parents, look at children's art work or write some of my journal entries; even watch the child silently if he remained at home. Those are afew countable instances as I always took appointments from parents before visiting them. Sometimes I felt eager to wrap up for the day and go home. These are part of any field research, especially if the participants are young children and the task is to pursue them to spend time with you.

Along with fulfilling the goal of reaching a representative sample size for my research, I tried to gain knowledge that would assist me in my journey of understanding the semantic acquisition process of children living in Bangladesh. Overall, I would say, my biggest concern during this entire process of exploration was probably finding participants of the required age group and make the family members allow me to observe them over time.

Finding children, selecting them, their convenience and willingness to talk to me, fixing schedules with them, and their availability were all factors in deciding the participants of this research. Appropriate research participants could only help making the storyline and pathway for any research.

3.4.2.2 ***Interviews.*** I also interviewed the participating children's parents and/or caregivers, as they spent the maximum time with the children. They have seen me spending time with the children for this long and are used to my work patterns and what I am interested in. I guided them with some semi structured interview questions and let them express their understanding, thinking and experiences. As almost all the mothers were house wives, I had to pre-schedule the interview time with them according to their convenience. After the consent of the clients (oral consents), the interviews were audio-taped. I transcribed of the interviews myself. Transcriptions resulted in 30(in general) single spaced transcribed pages. The interviews lasted anywhere between 30 minutes to 50 minutes. Interviews with them helped to find new perspective and concepts emerged from the conversations.

I tried not to keep my interviewing parents waiting as this might make them eager to finish the interview as soon as possible. This is not a paid project and I did not have to pay my participants. But, to make the children friendly and spend time willingly to me, I loved taking chocolates, toys, stickers, colour pencils and other stuff for them. Throughout the entire data collection process, my toughest challenge had been engaging young participants to share their time and patience with me. As a whole, the journey was of harmony and participation. For me, talking and listening to my participants, was a journey in reflexivity and humbleness. I wanted to know and understand, what my participants' thoughts could reflect on the semantic acquisition process of a child's life. I felt my knowledge and

teachings of higher education only helped me realize that there was a vast of unknowns out there in my research participants that was beyond the bookish and everyday knowledge. And I wanted to know some of it through this journey. I wanted to explore, understand and perhaps assist in co-constructing and the thought and meaning making process of the little angels in the form of participants.

Sometimes I would audio record my journal notes reflecting on the thoughts that would occupy me about the research, the participants, my own privileges and perceived biases. And sometimes I would record an audio note right after I would be done with an interview or a day's observation schedule to capture the details that would not show up on the written transcripts later on. For example, the reactions of the participants, disturbances that occurred (sometimes) during the session or any other incidents that had a direct influence on the data collection process; these audio journals are part of the research project also. Wolcott (1995) noted the importance of such journaling by saying that, "what you do record, record in sufficient detail, that should the need arise, you would be able to report directly from your notes" (p. 99-100). Observations and interviews in turn have their own sets of quality and process that need to be followed for a good and productive outcome.

A researcher must familiarize him/herself with the pertinent literature on the study that is about to commence before starting interviews to collect data. This helps the researcher (in my case, me) to formulate questions that need to be asked. Some general questions that helped me prepare included-

(a)What are the objectives of the study?

(b)What would be the best way to conduct it?

(c)Who would be my research participants?

(d) How would I interview them (why, where, when)?

(e) How would I portray myself to my interviewee?

Such questions helped me prepare my conversation with the participants by assisting me in creating a semi structured guide with topics that I wanted to use during the discussion. In this research, answers varied almost for each of the questions as they were asked (to parents or caregivers) to represent the young children's individual developments. Moreover, as their semantic development level were different, despite of a semi structured question paper prepared beforehand, many more related questions also came up(depending on observations), which is an expected attribute of such interviews.

Thus, I did not make an extremely structured interview schedule that helped me keep the rooms for in-depth probing in response to my participant's answers. For me it was more like a list of questions, broken into categories depending on the topic I want to explore.

As a good interview contains both structured and unstructured questions, equally an interview guide and a schedule helped well. Some examples include the following:

1. Have you ever thought of meaning acquisition as a part of child development?

2. Did you notice your child's meaning making process on purpose?

3. Do the changes of child's speech development mean anything to you?

I used Bengali language as the medium to ask questions for comfort and ease of competence as both of us decided it beforehand.

Standard interviewing rules include proper and formal introduction, greetings, perhaps shaking hands (depending on local practices), and some warm up conversations, such as the weather (more Eurocentric), or health (Eastern), or something neutral (e.g. Sports) (Alsaawi, 2014). Because of social and religious norms of Bangladesh, people prefer

to give 'Salam' (a religious greeting for the Muslim community) and I simply go behind this norm before starting the interviews; and few minutes of warm up conversations followed by.

I mentioned earlier that I had to introduce my objectives briefly to the guardians of the selected children before I started working with them. For the brief interview I would generally wait for the mother (usually) to be done with the household chores and come and talk to me freely. They usually kept themselves free as I always took an appointment with them on their chosen time. We talked mostly sitting in the living room, but if any disturbances occurred, we shifted to the master bed room. This is an excerpt from a journal entry I wrote specifically about the abrupt ending of interviews.

Today, I interviewed Sunny's mother. It was going alright, but when we were almost half way of the conversation, Sunny entered the room and started asking questions (what were we doing, why do I have phone in my hand etc.). Then his mother asked him not to disturb anymore, he agreed to that and stopped talking. But he did not leave the room and started making sounds with things and talking alone. We took a small break, his mother made him understand that we were doing something important and he left the room. Then we continued again.

So, my experiences of the interviews were varied and provided me with a lot of learning opportunities. In my opinion, the most important thing I did during an interview was I was listening well. Listening helped me ask for clarifications, probed for more details, and encouraged the interviewee to share personal insights and experiences.

3.5 Data analysis and evaluation

To analyze the data I have used the constructivist method of grounded theory (Charmaz, 2008; Strauss & Corbin et al., 1998) that helped me to generate the discursive

themes. This theory provided the tools to interpret the data taking into consideration the exploratory type of the research and its objective. According to Charmaz, grounded theory is "a systematic approach to social justice inquiry that fosters integrating subjective experiences with social conditions in our analysis" (Charmaz, 2008, p. 510).

In my study, I used manual data analysis through initial open coding and an inductive identifying, classifying, and sorting of the data and themes. Note-taking was performed simultaneously with the first reading of the data, leading to a preliminary set of broad themes and codes. When I was going through the data line by line, I engaged myself in unrestricted coding of my transcripts and journal entries. This process was necessary to generate categories that might develop into themes (Strauss & Corbin, 1998). During the readings constant comparisons were made to highlight commonalities and divergences.

These provisional codes were then reviewed and grouped into categories and sub-categories. This axial coding step involved relating and integrating the words and concepts in to meaningful clusters which assembled the data into organized categories.

Coding continued until the categories became superfluous. The organized, analyzed and summarized data then became the findings and contribution of this study. These findings clustered around two main themes (1) Imitation and surrounding learning (2) direct teaching.

Qualitative Data Analysis (QDA) is usually based on an interpretive philosophy. Its main idea is to examine the meaningful and symbolic content of qualitative data. For example, if the researcher is trying to analyze interviews about child meaning development, he/she might want to identify (any or all of them)-

(a) The interpretation of the world by children

(b) Why do they have that point of view?

(c) How did they come to this view?

(d) What are they doing to convey their view of their situation etc.

At the end of data analysis researcher can also seek to develop a theory. A theory in general means an explanation of something or understandings developed by the researcher (Creswell, 2013). Implicit meanings about categories may also piece together and make the data analysis less structured. After the data analysis, intersection of the categories becomes the theory and this theory can be presented as a discussion (Strauss & Corbin, 1998).

Different types of research require different assessment criteria and methods. According to Strauss and Corbin (1990) there are many criteria for evaluating a grounded theory, such as-

(a) Judging the validity, reliability or credibility of the data,

(b) Judging the plausibility and value of theories,

(c) Adequacy of the research process that has generated or tested the theory,

(d) Empirical assessment of the findings of the research.

A grounded theory publication provides information on the data assessment criteria, the research process and empirical grounding. During the actual analytical sessions, readers are not present and the dissertation does not necessarily help them to imagine these sessions or their sequences, but some criteria to help them to judge the research process on the basis of some good reasons (Strauss & Corbin, 1990). Like-

(a) Process and grounds of selecting samples,

(b) What are the major emergent categories,

(c) What were some of the events, actions, incidents that indicated some of these major theories?

(d) How has some of the data collected been guided by theoretical formulation? And how representative do these categories prove to be?

(e) Hypotheses that pertained to the relation among categories and on what grounds were they tested and formulated,

(f) Discrepancies between the assumptions and the facts actually seen. Have they affected the hypotheses?

(g) How and why have the core categories been selected? Was that easy or difficult, sudden or gradual?

(h) On what grounds has the final decision been taken?

Although some of the criteria are still unorthodox, these principles are important for evaluating grounded theory studies. A qualitative researcher may guide the readers the complex coding process of a grounded theory simply by providing the relevant information.

Detailed report supplemented with appropriate cues can thoroughly track indicators and reliable and imaginative theoretical sampling too.

CHAPTER 4

FINDINGS

This chapter sets out the findings of the observations, initially analyzing the descriptive data samples and their basic features. This will be accompanied by an overview of the results and aspects of the questionnaire under headings (1) early language use, (2) cognitive developments, (3) applying linguistic features and (4) using language for personal benefit. This will be accompanied by a detailed review of the findings and their connections with existing literature and analysis in order to decide if the new data supports or contradicts existing information. The result hereby is informed by the research questions that guided my study.

To answer the questions this research aims to provide a conceptual overview of the meaning acquisition process of Bengali children. Explicating the nature of this process and identifying children's meaning acquisition level will facilitate the explanation of the main research questions. Stages of language acquisition by Bengali children will also be analyzed, as it will clarify when and how children begin semantic mapping of their language.

4.1 Categorizing the data

The explicit data that are collected throughout are analyzed and coded into the following categories-

1) Early utterances (including sentences)	7) Over generalization
1) Imitation	8) Pretend play
2) Expressing preferences	9) Advanced sentences
4) Cognitive development	10) Developing conversational skills

5) Logical thinking	11) Using gestures and facial expressions
6) Perceptual categorization	12) Language used from previous experiences
13) Asking questions	20) Original words with imposed meaning
14) Giving descriptions and telling stories	21) Blame shifting
15) Rote learning	22) Semantic negotiation or language used for emotional manipulation
16) Shapes and colour recognition	23) Own word generation
17) Picture recognition	24) Single word multiple meanings
18) Singing songs and rhymes	25) Use of supra- segmental features
119)Use of onomatopoeic and reduplicated words	26) Sleep talking

Table 2: Data Categorization

These categories are then divided into the above mentioned four themes, (1) early language use, (2) cognitive developments, (3) applying linguistic features and (4) using language for personal benefit.

As 'cognitive development' is a vast area of child development, it is divided and discussed under three sub-categories- (a) Reasoning and finding solutions, (b) Processing sensory information and (c) Attention and Memory. Two tables are presented below (Table: 2 followed by Table: 3to show how the categories are divided into the above mentioned themes-

Themes	Categories
1) Early Language Use	a) Holophrases b) Word combinations c) Early utterances (including sentences)
2) Cognitive Developments I. Reasoning and finding solutions II. Processing sensory information III. Attention and memory	[discussed in Table:4]
3) Applying Linguistic Features	a) Use of onomatopoeic and reduplicated words b) Original word with imposed meaning c) Semantic or form-meaning mapping d) Form-meaning mapping error e) Single word multiple meanings f) Use of supra- segmental features
4) Using language for personal benefit	a) Blame shifting b) Semantic negotiation or language used for emotional manipulation c) Own word generation

Table 3: Data coded into four major themes

Categories	Sub-categories
Reasoning and finding solutions	a) Imitation b) Over generalization c) Logical thinking d) Perceptual categorization e) Expressing preferences

Processing sensory information	a) Pretend play b) Using gestures and facial expressions c) Rote Learning d) Shapes and colour recognition e) Picture recognition f) Sleep talking
Attention and Memory	a) Advance Sentence Use b) Developing Conversational Skills c) Language used from previous experiences d) Asking questions e) Describing things and story telling f) Singing songs and rhymes

Table 4: Sub-categories of the theme 'Cognitive developments'

4.2 Analyzing the categories

The above mentioned categories are formed mainly on the basis of a process of child language that gradually sprouts out by semantically and perceptually labeling the language. In the following sections these categories will be descriptively analyzed with examples to fulfill the outcomes and address the research questions.

4.2.1 Early language use. According to the stages of language developments, children at a very early age (around from 3 to 6 months) start to use the language to fulfill their needs (Wood, 2010). This very early period of speech production is called the pre-linguistic or pre- speech stage. At this stage, a child learns to control the sounds he produces and tries to put them together in vocal play; but they are only sound manipulations not proper words. Cooing, crying, burping and laughter are the vocalizations made at this level of the child to express feelings. After these, children start stringing the sounds together and through babbling, gradually the child develops utterances like 'ba-ba' or 'ma-ma' (age 6 months to 12

months). Most of the sounds that a child produces before uttering controlled series of 'consonant- vowel syllables' are nothing more than the practice of sound manipulation and sound sequence in order to gain necessary motor skills to create words. Thus, under this category 'early language use' the following three levels of early speech productions are discussed-

(a) Holophrases

(b)Word combinations

(c) Early utterances (including sentences)

(a) Holophrases: The use of a single word to mean a whole concept is referred to as 'holophrase' and the stage is called the 'holophrastic stage'. This stage starts from 6 months onwards (usually 10 months is the perfect starting point). A child starts to utter one single word at a time, so it is called the 'single word stage' also. The meaning of the word expresses here changes by the context in which it takes place. A single word can be used to refer to a single thing or even to mean a whole sentence (like commands) also. For example-

• The child Anna used the word /tata/ in three ways to mean three different things-
- as the actual meaning 'bye',

- to mean someone else is not at home and

-to mean she wants to go out.

• The child Fuko used the word /d̪ud̪u/ to mean-
-the actual word 'milk' and

-to mean that he wants to have some milk.

• The child Ikra used the word /gɔom/ to mean-
-the actual word 'hot' and

-to mean that she wants someone to turn on the fan

Eye movements and sometimes hand gestures are used together with the single words to make the meanings more specific. Later, this single utterance turns to 'word combinations' that makes communication more appropriate and perfect. Like-

-/baba tata/= (Father is not at home.)

-/mama ḍuḍu/= (Mom, I want to have milk.)

-/gɔom lage/= (I am feeling hot.)

(b)Word Combinations: At around at the age of one year and half (18 months) toddlers produce two-word combinations (proto sentences). With the use of previously learned vocabularies and new words, children produce their very early sentences. At this stage vocabulary develops faster.

One of the major features of this word combination stage is the omission of 'function words,' such as articles, auxiliary verbs, inflections, prepositions, and the copula 'is' (Brown, 1973).These sentences are the combinations of a noun or a verb with a modifier. This helps the child produce sentences like- declarative, interrogative, imperative or negative. For example-

• The child Sunny said-

-/amma bɔy/= (Mother I am afraid).

-/amma ɟampa/= ['Mother look they are jumping' (in the TV)].

• The child Anna said-

-/dim na/= (Not egg), when she didn't want to eat eggs.

-/mamma alla/= (Mom is asleep). When anybody asked her about her mother, she replied that; using 'Allah' in a rhythmic manner is a typical Bengali way of making the child sleep.

(c) Early utterances (including sentences): The last level of utterance included in this category is the earliest form of sentence use. As discussed in the former segment, we can see that the pre-sentence use of a child already takes the form of word combinations. At this stage sentences increase in lengths, but still, small connective words like 'and' or 'the' are left out and bigger words are simplified. Thus this stage is also named-'telegraphic stage', as the language used here seem to take the form of a telegram, containing just enough information to make sense. Like-

• Child Simmi said-

-/bebi ḍuḍu kʰabe/= (Baby wants to drink milk.) or

• The child Mro said-

-/apu gumai gese/= (Sister fell asleep.)

During this speech level, many three or four word sentences are also produced and child's vocabulary expands (up to 13,000 words, according to research). Sometimes children begin to see the links between words and objects and therefore over-regularizations comes in (like incorporating plurals, joining words and attempts to use tenses). For example-

• Child Anna said-

C:/amrao ɟeccilam/= (We went also)

C:/amar mukgula bæṭa korce/= (My mouths are in pain)

Here the correct past form of the verb 'to go' had to be-/giyec^{h}ilam/instead of-/ɟeccilam/. Moreover the plural form of 'mouth' is /muk^{h}/ in Bengali, but the child used the plural form to indicate a single person's mouth.

Early language use completely depends on the family and the child's linguistic environment. Vocabularies, language form (dialect or standard), accent, contextual meaning of words and many other language components depend mainly on the use (Owens, 2012). This means, the child will learn the way he sees things. For example Mro's mother calls 'noodles' /ludus/, so the child says the same thing. Moreover, all of them call all the soft drinks (coke/pepsi/7 up/ sprite/fanta) as 'coke' only and classify them as 'white' (sprite/7up) and 'black' (coke/pepsi). Thus Mro's conception of soft drinks is much different and overgeneralized also. Thus, it can be assumed that early language acquisition and use depend on linguistic and surrounding environment of the child (except the universal grammatical features of a language). The child is bound to produce the language on the basis of the inputs he has received in the first few years of his life as it is his first language learning atmosphere.

4.2.2 Cognitive developments. Progressive development of learning skills (such as, attention, memory, thinking, etc.) is called cognitive developments. These essential skills allow children to learn how to evaluate, analyze, remember, make compare and understand causes and effects (Allen, 2015).

In a word, children learn to process sensory information when their cognitive skills are developed. Most of the cognitive skills are learned and can be improved through practice and training.

Jean Piaget's (1936/1952) 'Theory of cognitive development' and Lev Vygotsky's (1986) 'Socio Development Theory' proposed two main theories on child cognitive

development. In their theories, both of them tried to explore child cognitive developments. Piaget believed that children's cognitive skills unfold naturally as they become mature and explore their environment. Vygotsky viewed language acquisition as a crucial part of cognitive development. He believed that cognitive development depended on interactions with adults, cultural norms, and their environmental circumstances. Both of the theorists emphasized on cognitive development being the major influence on child language acquisition.

On the basis of the collected data the category 'cognitive developments' is divided further into the following three sub- categories. They are-

4.2.2.1 Reasoning and finding solutions

4.2.2.2 Processing sensory information

4.2.2.3 Attention and memory

4.2.2.1 ***Reasoning and finding solutions.*** Reasoning is one of the basic cognitive abilities that are important for successful communicating with the people around us. According to Gail Heyman, it helps arrive at a conclusion and make decisions based on the information available; moreover, any process of learning (whether learning a new language or understanding any subject area) essentially involves verbal reasoning through word based concept-formation (Heyman, 2008). Reasoning, especially verbal, involves the ability of a child to understand the meaning of information from any form it is presented. It helps enable the thought- process of a child in which he gathers information, analyzes it, thinks about and evaluates it in order to to form ideas, beliefs and assumptions. Reasoning and finding solutions of tasks is a vital concern in language development. When a child

needs to acquire a new language, he or she must apply verbal reasoning skills to read and understand new words, listen and recall spoken language, and make comparisons with different language concepts (Nombre, 2012). In addition, other complex language-based tasks are also needed to master the language and successfully communicate.

The following five categories are included under the theme '*reasoning and finding solutions*'. They are-

(a) Imitation

(b) Over generalization

(c) Logical thinking

(d) Perceptual categorization

(e) Expressing preferences.

(a) Imitation: There has been considerable debate about the importance of imitation in acquiring language. One of the assumptions established about imitation is that children have to repeat the speech they have heard to learn it. Jespersen identified the importance of imitation differently, according to him, "One thing which plays a major role in children's language acquisition, and especially in their early attempts to form sentences, is Echoism: the fact that children echo what they are told" (Jespersen, 1922, p. 135). Another belief is that children are virtually bound to imitate and they imitate not only what they have seen or done before, but also novel behaviour also (Kirkpatrick, 1909 in Bloom et al. 1974). Imitation is therefore also seen as the stage between language comprehension and speech production.

Data comprehended through an analysis show that a large portion of the production of speech by children is due to imitation. They imitate their parents, caregivers, siblings, people around them and even TV shows. There are also instances that children are imitating street

vendors, beggars, shopkeepers. They not only imitate speech sounds; they imitate door bells, cars booming, sounds of things falling etc. Their imitations are unique in the sense of how they are doing it and in which context. Some examples of children imitating others are presented below-

• Child Anna:

-she makes sounds like /uf/, /aha/, /uh/to express that she is hurt or in pain.

- she hears vendors selling vegetables (/t̪ɔrkari/) or chickens (/murgi/) on the street in front of her house every day. She imitates the way they call to the customers. Like-

C:/t̪ɔkkari lagbe?/= (Do you need vegetables?) or

C:/muggi niben?/= (Will you take chickens?)

(She cannot pronounce the middle [r], so she makes consonant clusters for them.)

One street beggar comes almost every day in front of Anna's house. He is lame, so his son pushes his father's wooden wheel chair and begs by taking the name of Allah; he says, /allar name amake d̪ui taka d̪ao/ (Please give me 2 taka by the name of Allah). Anna observed them very carefully, later she copied them by pushing her doll's small stroller and saying at the same time /alla/ (Allah the all mighty) and asking for money too. She now calls all the beggars /alla/.

- if she makes mistakes and her mother gets angry at her, she cries out and says-

C:/beibid̪er ʃat̪ʰe ebabe kɔt̪a bolt̪e hɔyna./= (you should not talk to a baby like this.)

- Anna has her toy cooking utensils and she enjoys playing with it. One morning, she took a pot of rice (uncooked) and asked her mother-

C:/mamoni ḍekoṭo æk pɔt hoyece naki?/= (Mom please check if it's one pot or not, actually she is trying to copy the way her mother measures rice for cooking.)

M:/hæ̃ hoyec^{h}e./= (Yes.)

C:/ṭahole pani ḍiye ḍuye boʃiye ḍei ?/= (Ok, then let me wash it and put on the stove.)

- Anna's brother K was taking a bath. She knocked the bathroom door and said-

C:/hoyece?/=(Are you done?)

C:/ṭaraṭari maṭ^{h}ay pani ḍao cok ɟole ɟabe./=(Quickly put water on your head or eyes will burn.)

C:/mat^{h}a muc^{h}o t^{h}anda lege ɟabe./=(Wipe your head or you will catch cold.)

(She was imitating the way her mother instructs them when they take baths.)

• Child Sunny:

- Sunny learnt the word /hamba/for 'cow'. He learnt it from his grandparent's house. When he pronounces the word, he tries to make the call sound as original as possible. The researcher asked him-

R: /ḍaḍu bari ki korec^{h}o?/= (What did you do at your grandfather's house?)

C: /hamba./= (He wanted to say that he saw a cow.)

- at the sound of 'Azaan' Sunny takes his 'Jaynamaaz' and acts as if he is saying his prayers.

-he takes a basket on his head and pretends to be a fish seller. He calls out the names of the fish loudly -

C:/ar maʃ/, /kaṭa maʃ/, /paŋgu maʃ/,/rui maʃ/.

- Sunny burps loudly, he imitates his father.

• Child Simmi:

- Simmi's mother wears hijab, so Simmi also tries to put on hijab with her small dupatta. She tells her mother-

C:/mɔm, ami ʈo ʈomar moʈo hoye gelam./= (Mom I look like you.)

C:/amake bɔro lagce na!/= (I am looking older right!) . She becomes happy if her mother agrees that she looks like her when she wears hijab. Simmi even tries to act like her mother too.

- Simmi has a party frock that looks like a ballerina dress. One day she saw in TV that a ballerina is dancing wearing a similar dress. She said to her mother-

C:/o mɔm ei ɟama ta pore eibabe nace?/ (O ! they dance with this dress like this?)

M:/hmm. eta ke bæle dans bɔle./ (Yes. This is called 'ballay' dance.)

C:/amio ei ɟama ta poe ækon ʈeke ebabei nacbo./ (From now on I will wear this dress and dance similarly). She even tries to walk tip toe.

Like the above mentioned examples of imitation, the rest of the children have imitative data too. To explore the function and process of imitation of the participant children of this research, imitative and spontaneous utterances produced by them were analyzed and compared. The data collection took place following the children's course of natural speech development from single word utterances to grammar emergence. The degree of imitation had thematic differences but each of them was consistent with the tendency to imitate or not imitate over time. Children, who spend more time with family members and have siblings, imitated their utterances more. On the other hand child of a working parents' (who spent

more time with maids), imitated TV shows and cartoons and the housemaids mainly. Besides, they imitated activities of another people like- how the vendors sell products, beggars ask for money, mother dresses up, maid cleans the house etc.

This study described the extent to which imitation occurred in six children's speech and explored the function of imitation on the lexical and grammatical level of their early language development.

(b) Over generalization: Human languages are unique in that they offer speakers the possibility to productiveness for expressing new meanings. For example, add words, to express completely new sentences. During this productive period, young children continue to use a term past the field of its particular connotation; this habit of language formation is called 'over extension' which is a part of 'overgeneralization' in semantics. Two types of overgeneralizations occur in early language development- 'over extension' and 'under-extension'. For instance, referring to all four legged animals as 'doggie', all liquid items as 'water' ('mum' by Bengali children) or calling 'cat' only to the family 'pet cat' are examples of overgeneralizations. This often occurs in children when they are initially acquiring and developing the first language.

During my research, I have seen that children at this age make over extension error more than the under-extension, and it is very frequent to them. Basically two types of overextension are made by children-

(a) Categorical over-extension/ semantic feature hypothesis: Child over-extends on the features of an object. Like- the child calls any white-round object 'egg'.

(b) Analogical over-extension/functional similarities hypothesis: Based on the similarities of functions of objects, the child over-extends; like calling all the 'water holders'- 'cups' (glass, mug etc. also).

This process of meaning extension is visible in all children around since the age of 12 months to 2 years (sometimes up to 2.5 years also).Overextension is a cognitive process resulting from contextual reasoning and figuring out a solution. It is done by young children when they lack in producing or presenting new vocabularies or more specifically names of things. Some examples of over-extensions produced by the participant children are presented below-

• Child Mro-

-He calls all the circular things as a ball-

C:/ɖaɖu baɟar ʈʰeke ækta bɔl enecʰe./=(Grandfather brought a ball from the bazaar. It was a pumpkin.)

C:/ɔrenʄ kalaler bɔl./= (His father brought 'Orange' for him.)

• Child Anna-

-When she learnt the name of the colour 'pink' she referred to almost all the coloured things 'pink', and it became her referential colour too. Like-

C:/piŋ katun ɖao./ (Give me the Pink cartoon.)

C:/piŋ biʃti occe./= (It's raining Pink.)

C:/piŋ cɔkket ɖao./= (Give me pink chocolate.)

-She even over generalized determiners too.

C:/ekta pani ɖao ʈo./= (Give me 'one water' please.)

C:/ekta ḍuḍu kʰabo./=(Give me one milk).

Moreover, she calls cow, horse and buffalo as 'a cow' in general.

• Child Ikra-

-She recognizes most of the animals from her picture book. But when she sees Zebra and Elephant, shesays-

C:/hamba./= (The call of a cow.)

-Some children call water '/mam/' in Bangladesh. Some mothers also indicate water as '/mam/' in 'motherese' (or child directed speech). Child Ikra also uses the word '/mam/', but she refers to all liquids (including water) as'/mam/'.

C:/ma amake oi ɟe mam ḍao./= (Juice was poured in a glass.)

-When Ikra learnt the number 'two' only, she referred to every countable thing as two. When tea was served she said-

C:/ḍui ta kap/=(Two cups).

It was impressive. But her mother said every countable thing is two for her. 'Two eyes', 'two nose', 'two spoons'(when it is actually one). When her mother was interviewed she said that she corrected Ikra whenever she made over extensions in using countable nouns. According to the mother, if she doesn't teach her daughter what is the right form, who else would do that! Ikra's mother also mentioned about over-generalized tense forms too, but as grammar is a complicated issue, she didn't correct her misuse of grammar and waited for Ikra to grow up couple more years to get it on her own.

(c) Logical thinking: Thinking makes it possible for children to reason out problems

and persue solutions. This cognitive ability allows a child to know if they are accomplishing what they want to do alone or if they need assistance (Piaget, 1936/1952). For example, if a child is taken to the toy store and asked to buy a toy of his choice, thinking skill will help him to decide which one he already has, how he will be benefitted by the new one, which colour among all is attracting him etc.

In this research I characterized children's thinking process as 'logical thinking', because I observed that children do not say everything they think in random or not even their thinking process is scattered. They say what they think (in a childlike manner of course) is good for them and logical according to their age also.

According to Siegler, thinking involves the higher mental processes: problem solving, reasoning, creating, conceptualizing, categorizing, recalling, preparing and so on (Siegler & Booth, 2004). In early childhood basic mental processes like perceiving objects and events in the environ34ment, understanding and producing language and skillful acting on objects to obtain goals are also results of thinking. Actually, there is no specific boundary that can separate thinking from other mental processes.

Children express their ability to think rationally when they turn 2.5 years, and it continues onwards. Generally a child does not face any problem that he needs to solve by himself; parents and caregivers are there for them; like the adults, children do not use logics to solve problems (literally). Data shows that child logics is basically used to find out ways to present issues or their needs in front of parents or other adults in a comprehensible way. For example, if a child already has a 'toy car' but he wants another one from the shop, he would try to assure his parents that the old one is no more useful, or it doesn't work, the colour might have faded etc. And parents get to know that the child really wants a new toy car.

Children use lots of logic everyday to get their purpose served and they use one way or another for that. I have seen that, at the beginning children use logic mostly to serve a purpose or to get something from someone; it can be food, water, toy, spoon, lotion bottle, bath, sleep, pillow, going out, changing dress or anything related to a child's interests. But soon they advance in applying logic more like the adults in deciding what they want and how they want it.Some examples that reflect the children's thinking ability collected through this research are like-

• Child Fuko-

-One of Fuko's relatives was watching TV in the evening, and the lights of that room were turned off. Fuko came to that room and asked her-

C:/alo kot̪ay?/= (Where is the light?)

R:/ʃɔb alo nɔʃto hoye giyecʰe./= (All the lights have been spoiled). Fuko ran away from there and came back after a few minutes with his grandfather's 'torch light' and said-

C:/ei ɟe alo ace, kot̪ay͡θb alo nθ͡to!/= (Here is light! Not all of them are spoiled).

-Fuko saw a plane flying over in the rain. He said to his mother-

C:/mamma plein ta bʰiɟcʰe na kæno?/= (Mom why isn't the plane getting wet?). He silently thought for few seconds and again said-

C:/mone hɔy baʃay dʰuke ɟay abar briʃti komle fire aʃe./= (Probably it goes inside the house when it rains and comes out again later.)

• Child Sunny:

-The music of Sunny's toy car was not playing loudly like before. So he said to his mother,

C:/ammu, gayi bæta bæta./=(Mother, the car's battery!). He tried to mean that the battery of the toy car needs to be changed.

-Sunny can now ride his bicycle very fast with twists and turns. Researcher asked him (for fun)-

R:/ sani, cycle ta t̪umi eka calao na apu o calay?/=(Do you ride the cycle alone or your sister also rides on it?)

C:/apu calay na.apu boʃle saikel bʰaŋbe./=(Sister does not ride on it. If she sits, it will break). His sister is tall and heavy, so Sunny figured it out.

• Child Simmi:

-She wanted to buy these things for school – (a) 'Frozen' school bag, (b) 'Frozen' water bottle and (c) 'Snow White' tiffin box. I asked her why she didn't want 'Frozen' tiffin box too, she said-

C:/are elsa t̪o kicu kʰay nai katune./=(Elsa did not eat anything in the cartoon.)

R:/sno whait ki kʰeye cʰilo?/=(What did Snow White eat?)

C:/oi ɟe apel. amaro t̪o apel pɔsond̪o./=(She ate Apple, I also like to eat apple). Simmi already told her mother that she would take apples for snack.

-Sometimes when Simmi wants something that her mother will not allow her to have at that moment, she would goto her mother and ask for that item on behalf of someone else; like, if she wants tohave an ice cream, she would say–

C:/mɔm bɔd̪d̪i naki aiskim kabe./=(Mom sister said she wants to have ice cream.)

C:/amar klaser meyera na naget kʰɑy tifine./=(My classmates eat nuggets as a tiffin.)

or

C:/bikale naki baire ɟe̯te hɔy mɔm?/=(Is it true that you need to go out in the afternoon?)

I personally feel that for children 'logical thinking' or 'thinking' in general has few pre-requisitions, like, vocabularies (context based), previous knowledge of concepts (like, when child said her sister will break the cycle; he must have the concept of heavy and light. Or the child Fuko knew what happens when it rains heavily), features of things (Apple is Red, a toy car is battery operated) etc.

If we ask a child to decide which fruit he would like to eat or which school bag she will buy, the child would need to apply concepts that he already knows to answer any question, like, fruit names, colours, tastes, textures or how a school bag looks like, what features can it carry out etc. In my opinion, logical thinking is the application of some previously collected knowledge and it is expressed as the result of a combined process.

(d) Perceptual categorization: Researchers described the remarkable progression of early childhood cognitive development and identified broad range of cognitive competence. Children are describes as active, motivated and committed learners who possess impressive range of cognitive skills and learn through exploration (Whitehurst & Lonigan, 1998). Their natural curiosity and strong drive to learn and act accordingly helps them better understand cause and effect as well as the properties of objects, human features and patterns of behaviour and the relationship between events and consequences.

Child perceptual development is a cognitive maturity phase where sensory information is interpreted. Two types of basic categorization occur in infancy, one is a

natural perceptual processing that identifies objects and people on the basis of similarities (how they look like), and the other one is based on functions (what objects do). Both of them re-describe perceptual information into conceptual form (Mandler & Canovas, 2014). Perceptual categorization is an important cognitive development which is normal in children who do not have developmental issues.

According to the data following are the examples of child perceptual categorizations-

• Child Anna-

-Anna could identify similarities between two persons. The security guard of the apartment complex where she lives had a beard and he wore a cap as a part of his uniform; Anna saw him every day. So, whenever Anna saw any other bearded person or man with a cap, she resembled that person with the guard and said-

C:/oi ɟe ɖæko boʂtaner moʈo lok./=(Look, that man looks like 'Bostan', Anna called the guard 'Bostan').

-Anna was eating bread. At first she smashed the bread and then ate it with her hand. Looking at the smashed bread she said-

C:/ami baʈer moʈo pauruʈi kacc^{h}i/=(I am eating bread like rice. In Bangladesh rice is eaten by hand and it is smashed and mixed with curry before putting it into mouth, which is why Anna resembled crushed bread as rice.)

-If Anna finds any hair on her toys while playing, she says-

C:/ei ɟe ma, ekta ʃelaiyer moʈo cul peyec^{h}i./=(Look mom, I have found a hair like a thread! '/ʃelai/' means 'to sew' in Bengali, Anna found similarity of a thread with a hair.)

• Child Ikra-

-Ikra could find resemblances of one thing and person with others. Like-

C:/amaḍer garir mɔṭo pimio gari./=(A 'Premio' car like ours.)

C:/ruti ta donater mɔṭo gol./=(The flat bread is round like a donut.)

C:/ḍaḍur mɔṭo cɔʃma porese./=(The lady wore glasses like my grandmother.)

C:/papar mɔṭo ʃaḍa panɟabi./=(White Panjabi like my papa's.)

-Ikra could also identify similar and different. She says-

C:/amar ar mɔmer seim dres./=(My mom's and my dresses are same.)

C:/baiyar ḍaṭ ar amar ḍaṭ ek na./=(Brother and I don't have the same teeth. As her brother's two teeth fell off).

• Child Mro

- Mro saw couple of small woolen balls on a winter beanie. He shouted-

C: /poka poka!/=(Insects! He tried to throw them away).

-Mro got a Panjabi as an Eid gift, it had some white flowers embroidered on both shoulders. He saw it and said-

C:/mamonir ɟamar mɔṭon hoise./= (It looks like my mother's dress.)

C: /ma ṭomar lal ɟamatar mɔṭon hoise na!/=(Mother, doesn't it look like your red dress!)

When I first heard Anna mapping objects or people like this, I was really amazed. This really remarkable ability to figure out ways in language communication is a blessing on human being. At a very early age when children express such ability, it is really worth

observing. Not only Anna, all the participating children possessed this ability and expressed it as a part of the natural developmental process. All the children managed to find similarities among object features and human traits. Perceptual development helped children group, sort, categorize, connect and expect object and people according to their attributes. This cognitive development later helps children acquire fundamental skills like problem solving and symbolic play.

(e) Expressing Preferences: Developmental psychologists believe that if a child is taught to make his own choice (among very few options), he would learn to be obedient and live in harmony. Offering children with acceptable choices allows them healthy room to assert themselves and their unique personalities, while still constraining them to be obedient (Oswalt, 2017).Often young children say, 'No' to something parents decide for them, simply to exert their independence. It is a sign of children's developing individuality. Offering children choices is a way of offering them control over their lives without putting them at risk. Allowing children to make small choices (dress up, breakfast, etc.), is actually helping them to realize that they are capable of taking responsibility, which will help them to make larger choices in life.

During the observation I have seen that, like the adults, young children (age 2 years onwards) can also express their choices or preferences. They can choose their favourite things among many other options; like- if they want to take a bath or not, which food they would like to eat, which dress or shoes to put on etc. Children even try to decide things for their parents and family members also. Like, which saree or shirt they should wear, whether grandmother should drink Pepsi or juice, the father should watch cartoon rather than watching news etc.

At the beginning, this choice making depended more on choosing by looking and without thinking much. For example, a child's favourite colour could be blue and he might want his father to put on a blue shirt for office too, or the child might like Pepsi more than apple juice, so she would love her grandmother to drink Pepsi also. Even a random selection of anything also occurs, like eating biscuits instead of potato chips. Later (after 2 and half year mostly) rational thinking takes over children's preferences. They think before deciding on anything. Like they would choose a 'Ben Ten' cartoon ball not because they want to play with a ball, but also because they see this cartoon and having a ball of that character is more appealing than other different ones. Gradually neighbourhood friends, classmates or surrounding environment influences their thinking and expressing preferences more. Few examples of the participant children of this research expressing their preferences are as follows-

• Child Mro-

Mro has grown the sense of liking and disliking. His mother said that he also wants to decide which dress he will wear. He has a cartoon printed red half pant, whenever they plan to go somewhere; Mro wants to put on that pant particularly.

During last Ramadan Mro preferred puffed rice and fruits for iftar. But I saw that by this Ramadan (year 2016) his preferences changed. Now he is more attracted to fritter (beguni, peyazi, potato chop etc.), last time he found these spicy and tasteless.

- Mro told his mother that he would like to be a doctor when he will grow up. He told his mother-

C: /ami cikit̪ʃa korbo, mat^{h}e ækta d̪okan d̪ibo ar ʃɔbar d̪æk^{h}a ʃona korbo./=(I will treat people. I'll open a chamber in the field and treat everyone).

According to his mother they never told him that he will become a doctor when he grows up. He says it hiself-

/amra kɔkʰono boli nai ɟe dakt̪ar hot̪e hɔbe, o niɟe niɟei bɔle./ Probably he saw someone near to him who is a doctor or watched in TV shows.

• Child Fuko-

-Fuko has a favourite blue shirt (that has tie attached to the collar). Whenever they expect any guest at home, he asks his mother to let him wear it. His mother said it is because last time when he wore it, everybody said he looked handsome. So he wants to look nice in front of all.

-Fuko loves to drink juice. If juice is offered to him, he smiles and quickly opens his mouth and shakes his head in approval.

-Fuko loves to eat puffed rice, even quick after lunch with a full stomach, he can eat a small bowl full of puffed rice. He just loves it.

-Fuko loves his cousin brother K among all his cousins. So when he goes to Fuko's house, he lets K sit on his self driven toy car. If K's sister wants to sit also, Fuko shouts or pushes her away.

• Child Simmi-

-Simmi took one Hog-Plum and tried to mix pepper and salt on it. Mother took it away and gave a new one without the spices. She refused to take it and said,

C: /ami tʰanda kʰabo na/= (I will not eat it cold). In this situation she used the word 'cold' to mean that she will not eat without pepper. Her other expressions of choices are like-

C:/ami kole t̪ʰakbo na, nambo./=(I do not want to sit on your lap anymore, I want to get down.)

C:/ʃemai kʰabo./=(I want to eat vermicelli.)

-If Simmi's mother wants to feed her breast milk, she refuses.

C:/mamma ḍuḍu kʰabona, fitar ḍuḍu kʰabo./=(I don't want to be fed to the breast, I want to drink milk from the feeding bottle.)

There are both benefits and disadvantages for children making their own preferences. The 'choice strategy' is a way of promoting harmony and compliance in children. Allowing children to choose from appropriate options encourages them to have a safe place to express themselves and their unique personalities.

It facilitates co-operation and avoids creating differences with parents. Expressing personal preferences is a sign of children's developing individuality.

But, based on my own experience, early age children should be given only with a limited number of options, no more than 2 or 3 at a time. Mother could start by asking, 'what do you want to wear today, 'pink frock or blue skirt'? Too many choices overwhelm them and the situation might become complicated too. They should be provided with choices made in advance by parents that are suitable and fair. If children say 'no' to something parents just decide to bring in their freedom, it may be a sign of being stubborn. But controlled and little freedom of choice will strongly motivate young children to perform. Children get the message that their unique preferences are important and they are capable of taking responsibilities. So parents should play the biggest role of deciding or selecting things for children without increasing the number of great battles or breaking the children's self-esteem.

4.2.2.2 ***Processing sensory information.*** The ability to organize sensory input for use is known as 'sensory processing'. It allows children to communicate effectively with the

world. When a child starts to discover the world, they experience several different sensory inputs. Their senses are coming alive. The knowledge continues to flow through their senses. They begin to learn to how to coordinate and act on this knowledge (Ayers, 1972). It helps to develop particular areas like-

- take information through all the senses
- organize and interpret all sensory information
- answer the detail in a purposeful manner.

For instance, if someone bumps to something, sensory system quickly organizes and interprets the information and responds by shifting body weight to maintain balance. A healthy sensory system is a prerequisite to intelligence, academic learning and social behaviour. Sensory perception and both internal & external senses help us navigate our world (Hoyer & Plude, 1980).

The following categories (which were coded on the basis of the participant children's activities) can be discussed under the theme 'processing sensory information' which is an integrated part of child cognitive development.

(a)Pretend play

(b)Using gestures and facial expressions

(c)Rote learning

(d)Shapes and colour recognition

(e)Picture recognition

(f)Sleep talking

(a)Pretend play: Pretend play or make believe play represent a vital traits of a child's cognitive and social development. It involves playful manipulation of ideas and emotions. Children engage themselves in pretend play from the age 2 to 6 or seven years old.

Hughes (2010) in his study demonstrates that children take on diverse roles through pretend play, which gives them the unique opportunity to develop social skills (such as communication, problem solving and empathy). Russ (2004) in a longitudinal study found that early imaginative play is associated with increased creative performance in future. Pretend play increases child's cognitive flexibility and creativity.

The following data are the examples of child pretend play collected during the observational period of this research-

• Child Anna-

- Anna plays with her dolls and pretends to be their mother. When Anna cries her parents take her to lap. Like that, Anna sometimes brings her doll to her father and says - C:/baba beibi kad̪cʰe, okekolenao t̪o./=(The baby is crying, please take her to your lap.)

-Anna takes a veil (dupatta), wraps a doll with it and keeps it on her lap. Then she says - C:/amar koleiʃʃak ʃuyeacʰe./= (Ishraaq is sleeping on my lap. Ishraaq is Anna's cousin brother.)

-Anna makes imaginary things out of building blocks and gives them names. Like, she made a lollipop (kind of) shaped thing and said to her brother-

C: /baiya aʃo ei ciken ta kao./= (Brother please come and have this chicken). Similarly, she makes imaginary house, snake, and table with blocks every day.

-Anna spends hours playing with her new 'toy kitchen'. She makes food in it, sometimes brings real rice from the kitchen, and pretends cooking it. For her kitchen she asks for things like- chopping board, knife, onions, pans with leads, vegetables, glasses, plates, dust bin, coffee, tea etc. Everyday she takes a different doll from her toy shelf and makes it her guest. She pretends to serve and make them eat what she has cooked.

C:/boʃo ʃobai kʰabar d̪ibo./=(Everybody take your seats please, I will serve food.)

• Child Sunny-

-Sunny took two big bowls and one spoon, then called K to show him that he can cook with them. K asked Sunny what he was cooking, he said,

C: /ran, hamba/=(leg piece of the cow, maybe he saw that in his grandparents' place).

-Sunny plays with his toy animals and broken toy parts a lot. He tries to arrange a race between animals and cars. Sometimes Sunny parks cars in one long line, he says he is parking them in the garage.

-He draws round or almost round shape and calls it a /bʰut̪/= (ghost), and if he draws shirt and pant over it, he calls it /baba/= (Father).

-Sunny speaks very little and uses gestures more; his pretend plays are mostly soundless plays. So a person who is observing him has to comprehend most of his pretend playsby seeing what he is doing.

• Child Ikra-

-Ikra plays with her dolls and tries to do things that her mother does with her.

C: /aʃo mat̪ʰa tʰik kore mucʰe d̪ei./= (Let me wipe your head properly.)

C:/aro ektu kʰao nahole rag korbo./=(Eat a little more or I'll be angry.)

C:/mɔɟa hoyecʰe kʰabar?/=(Is the food tasty?) etc.

-She refers to all the girl dolls as her daughter and boy dolls as a son. Ikra imitates their mother- daughter joint activities through her play.

C: /norcʰo kæno cul acranor ʃomoy?/=(Why are you moving your head so much when I am combing your hair?)

She tells to her dolls- C:/d̪arao t̪omar fidar ta ani./=(Wait, let me bring your feeding bottle). She even hugs them with great love and pampers them like the way her mother pampers her.

• Child Fuko-

-When Fuko was 1 and half years old, he used to take cell phone (he found near him) and acted as if he was talking to someone-

C:/hæo, ke?/(Hello, Who is it?). He used to do the same thing every day. At that time he could not talk fluently, but he imitated and acted out things that attracted him from his surrounding environment.

• Child Simmy-

Simmi sometimes pretended as if she was one of the Barbie princesses from the Disney 'Princess' cartoon. She has long gowns, she asks her mother to give her one of them, and then she becomes the princess and acts out like the characters of that cartoon.

When Simmy turned four, she wore her grandmother's saree and pretended to be her grandmother. She used to tell her mother-

C:/mɔm, ami ṭo didar moṭo hoye gelam./= (Mom, I am looking like grandmother.)

She becomes happy if her mother agrees that she is looking like her mother or any other person she pretends to be. During the observation sessions I realized that children who were more extroverts and out spoken spent time in pretend plays more. Moreover, children who spent more quality time with his/her parent (or parents) showed diversities in creativity and pretending. When I was interviewing the parents, Ikra's mother told that Ikra's pretend play expanded and depended on her day today experiences. Now she plays imitating the experiences gathered from everyday observations of her surrounding environment and their foreign country visits. Ikra's mother said when they returned from Malaysia, Ikra's brother pretended to be an immigration officer and Ikra became a passenger. Ikra's brother was asking for passport and Ikra pretended to be taking it out from her side bag. Again, Ikra was a toy store cashier and her brother acted as a customer, buying toys for his children. In these cases, both of the children pretended to play the characters they have already experienced in their lives.

Research has shown that the children's environments foster pretend play early and frequently. Parents who speak to their children about the features of nature and social problems on a regular basis, or who read or tell stories at bedtime seem to be more likely to foster pretend play (Shmukler, 1981; Singer & Singer, 2005). So, it can be said that children who explore the world more, gather more experiences and their imaginary plays become more creative and diverse.

(b) Using gestures and facial expressions: Gesture is a non- verbal means of expression that involves hands, arms and other parts of body motions. It doesn't only complement language development but also enhances child's ability to communicate. Gesture is a bridge from pre- verbal communication to speech (Singleton & Saks, 2015). When children are stuck in conveying a message or a thought because of limited vocabularies, gestures allow them to easily express it.

Gesture begins at around 10 months of age, when infants are not yet able to produce intelligible speech (Bates et al., 1989). Research shows that early use of gestures later helps to improve the development of children's vocabulary child's vocabulary; it also found that children's gesture tends to continues to precede and predict the development of children's language when they reach the two word stage; thus gesture and speech combination accurately predict the first 'two word combination utterance' stage (Rowe & Goldin-Meadow, 2009).

Among the two types of gestures (informative and communicative) children usually use communicative gestures as they are intentionally and meaningfully produced to modify speech. Indexical (deictic) and iconic (lexical) gestures are the two most frequently used gesture types that help children to intensify their speech; such as- pointing 'this' and 'that', expressing feelings of cold or hot etc.

I have observed that, all the participating children use gesture frequently with their everyday language communication without any extra effort. Since 9 months and above, they started using gestures and it is continued even after they turned five, but in different forms, it became a part of their day to day language expression still today in different stages and forms. It is a part of their day to day language expressions and it did not require any special

attention either. Whenever they lack in verbal language production (starting from pre-linguistic stage), they substituted or added hands or body gestures and facial expressions along.

Ikra's mother said that when Ikra was one year old, she couldn't always make others understand what she wanted. Then she used hand gestures with meaningless or single word utterances. Like- if she saw someone drinking water and she also wanted to have it too, she pointed to the person and made sounds like 'uh!' or 'umm'. Now she is five years old and she can describe events or incidents and tell stories; while she talks, she uses lots of gestures and facial expressions to make others understand the story or the incident better. Like, if she wants to say that the playing area was too big, she would spread her hands out to make the appropriate size or raise her eyebrows to express her amusement.

Child Anna also used (still uses) lots of gestures. Most of the times (age 2 years and above) Anna did not answer to questions in words. She used gestures and body languages. Like, if mother asked her how she brushes her teeth, she opened her mouth and showed with her fingers how the brush moves. Similarly, she would show how hair is combed, food is taken, how she splashes water with a mug when she takes bath etc. Now when she is five and half years old, gestures are integral part of her language use. It might be telling stories, describing anything or explaining something. For example, if she bumps her head and hurt herself in her parents' bedroom, she would go to that room and stand on that particular place to show others how she hurt herself with that object.

Though my observations show that early use of gestures are not as specific, clear, neat or expressive like gestures become later at the age of 2.5 or above. But gestures complete any expressions and meanings take absolute form when children use gestures with

language and speech. Thus, it is a very essential as well as a natural part of child meaning acquisition process.

(b) Rote learning: Rote learning is a repetition based memorization technique. During rote learning a child manages to recall the meaning of the material through recurrence. Like if the mother says number '1' the child can say '2'. For a growing child, rote memorization functions as a key step towards future efficiency in mathematical reasoning also. Rote learning helps children improve their fine motor skills and memory.

During the observation I saw that the participant children learnt rot counting at the age of 2- 2.5 years as one of the simplest ways to learn in a sequential manner. But it doesn't make the children capable of counting things in a collection.

Mothers' also choose Rote learning as an early attempt to teach not only because it increases cognitive abilities to track down the sequence of numbers, but also because they think of it as the easiest way to keep their child busy which help them finish household work also.

When the mother (or maid in a couple of cases) started with number 1, children continued by saying 2. It is a successful way to develop a child's cognitive skills of memorization and understanding things. I have seen that after couple of days (or a week), the child could figure out what to say when the mother starts with number one (1). Sometimes they skipped a couple of numbers too. Like, Anna always said 8 after 6. But all the participating children were capable of Rote Learning which they learnt either from their mother, maid or elder siblings. Like mathematics children also learnt alphabets by 'Rote Learning'.

(d) Shapes and colour recognition: Recognizing colours and shapes is a cognitive development present in all normally growing children. When young children are asked to sort their toys, they usually use the most obvious traits of colour and shape to categorize the items. Colour recognition is one of the vital cognitive developments as children make distinction among things they see through colours. Like, they choose balloons at a super shop or pile up clothes to help mother etc.

Children at a very early age can start recognizing colours. Some children can start at 18 months of age only. Anna started her counting at 2 years 1 month of age. But her colour and shape recognition started when she was 2 years 7 months old, but took longer to be sure which colour meant what.

Like colours, identifying shapes is a way to organize visual information. At a very early age a child begins to connect between familiar objects and their shapes. For example, Ikra used to say 'I am eating round cookie' or 'look at my round ball'. She always tried to tell the shape of the objects with its name.

I personally experienced that a child can explore shapes only when she can differentiate between the concepts of 'same' and 'different'. This concept provides the child with the basic processes of observing, comparing and discussing what she sees and encounters. The early recognition of shapes enables a child to read 'alphabets' which are actually some symbols.

Children at a very early age can start recognizing colours and shapes. Some children can start at 18 months of age. Anna started her counting numbers at 2 years 1 month of age. But her colour and shape recognition started when she was 2 years 7 months old and took

longer to be sure which colour meant what. At the beginning she learnt only couple of colour terms and used to refer 'pink' as a reference colour for many things. Like-

C: /baia amak e ɟama ɖao ʈo./=(Brother, give me a dress.)

B: /kon ɟama?/=(Which one?)

C: /piŋ ta/=(The pink one.)

B: /kotʰay?/=(Where is it?)

C: /dɔware./=(In the drawer.)

B: /kon drɔware?/=(Which drawer?)

C: /piŋ dɔware./=(Pink drawer.)

When she learnt colours almost perfectly, she started expressing her choices, like- 'I want the red frock, not blue'; 'I will buy a yellow doll' etc.

Like Anna, all the other children had their specific use of colours according to their contexts. I found that context and surrounding environment has strong influence on children's colour and shapes (especially on colours) learning. Children living mainly in cities learn to differentiate between boys colour –'blue' and girls colour 'pink' concepts very quickly. Here mothers' are also very cautious about selecting colours for their child, they start choosing colours since they find out about the child's sex in the womb. So their thinking reflects on the child when they grow up.

Ikra's mother said, her son (Ikra's elder brother) learnt about colour differences when he wore a light pink T-shirt in his pre-school and one of the girl classmates told him that he was wearing a girls' colour. Since then the child has became very cautious about selecting colours while choosing dresses, school accessories and even his room curtain and bed sheets also.

But the same thing did not happen in the case of Mro. As they live in a village- town, his family members do not bother about differentiating colour with genders. Mro wore and still wears all type of colours (including shocking pink). Child Sunny's parents were brought up in a rural area and later settled down in Dhaka. They also do not believe in making any difference in choosing colours for their boy. So, I have seen Sunny wears Barbie printed or pink T- shirts very often.

Learning shapes also depend on surrounding environments, but not so profoundly as colours. The basic difference comes on parents' understandings or willingness of teaching the importance of colours for their children; like, as mentioned earlier, Ikra tells the shape along with the object names as she has been taught these in the family. But Mro does not do that as he has not learnt associating objects with shapes at an early age. He knew a couple of shapes, but individuals through learning, not by associating them with any object.

(d) Picture recognition: Recognizing picture is another cognitive development that occurs between 18to 21 months old children. It allows them to interpret an image or picture (from a book mainly) after they see it. According to Sanders, picture books are more than illustrations on a page. They play a critical role in learning, and among other things help children develop self awareness and make inferences (Gelman, 2009).

The texts in a picture book are often very rich, engaging and evocative. The language used in these books is distilled by the writers and thus enrich a child's language development. Moreover, questions asked by students during the reading of picture books help to increase their thinking ability too. Through this research I have seen that children respond to images long before they can read. As picture books demand readers' participations, their ability to imagine also increases. Moreover, illustrated books keep children engaged throughout the

whole period. Therefore picture books also play a significant role in child language development.

By the age of 1.5 to 2 years the participant children were all exposed to word books in which names were given to things, animals, fruits, birds or other images. Children were frequently exposed to those books. So after a few days of everyday reading, children became capable of showing pictures of the right object when somebody asked them which is what? For example, if a mother said 'show me the Apple', the child could do it (with very few exceptions, when they could not memorize).

The child Mro learnt a complete word book at a very early age (around at 2 years age). I was amazed to see that when the mother was asking him to show this or that to me, he successfully did it. But he did not use any oral language with that. Child Ikra could also do that easily and perfectly than the other children. Child Sunny recognized most of the pictures, but sometimes over generalized the names ('cow' for 'Hippo' or 'Zebra').

Later, when the children turned 3 years old and were exposed to story books very frequently, they recognized pictures from the books and could remember sequences of pages also. A couple of them even tried to tell made up stories after looking at the pictures. They turned pages as if they could read them. For example, after a couple of readings of the same book with illustrated pictures, Anna could tell what is written in most of the pages just by looking at the pictures on that page. It is actually combinations of memorizations and imitations. She had a book 'The Monster is Hungry' in which the monster eats everything he gets. Anna looked at the pictures and told the storylines like-

C:/d̪oi̪t̪to kʰid̪a pelo./= (The monster is hungry.)

C:/murgi kʰelo./=(The monster ate the chicken.) etc.

Apart from recognizing pictures from the books, children could also figure out images from posters, billboards, newspapers or television shows also. Like, child Anna could figure that the image printed on the billboard was of Father of the nation Sheikh Mujibur Rahman's. In addition, she could identify Prime Minister of Bangladesh, Sheikh Hasina from the posters stuck on the walls on her way to school. She could do this because she learned it from her family. Thus, it can be said that, picture identification is possible only when initiatives are taken from the family. Children need exposure to word books or pictures that belong to their age levels. It is a cognitive development which develops in all the children (without any developmental issues), it only needs boost ups from the child's linguistic environments, so that it can be explored.

(e) Sleep talking: It is the act of speaking during sleep and is a very common occurrence (particularly among children). The night time chatter is mostly harmless and lasts maximum 30 seconds per session. Sometimes children sleep talks more than once at night. Sleep talking mostly involves simple sounds or long speeches also. It seems talking to them mainly (Shelby, 2013).

Children between the ages of 3 and 10 carry on conversations asleep, and the pronouncements can occur periodically or every night. In 2004 'National Sleep Foundation' conducted a survey in the USA; it revealed that more than 1 in 10 young children spent more than a few nights a week in talking in their sleep (Hassan et al., 2011).

During this research I observed Anna sleeping. She talks in her sleep a lot. Almost every night she used to talk and sometimes tried to get down from bed with closed eyes. She talked about the following things mainly-

-what did she do throughout the day

-what she did not get even after asking to her parents or anybody else

-what happened in her favourite TV show (like- what Tom did in that episode)

-who visited her that day

-how the street vendors call out

-how she was tortured by her elder brother (this was her most common topic of sleep talk)

-she complained in her sleep-/baiyaamake ḍilo na./ (Brother did not give me).

Most of her talks were unclear and like mumbles. Sometimes she cried, showed anger or laughed out loudly. Later in the morning if Anna was asked what she said last night, she was unable to recall anything.

Anna is now five (5) years old and she still talks in sleep. New features like, longer sentences and diverse subject matters are added now. Anna laughs, sings songs, recites rhymes in her sleep; most interesting thing is, she still complaints about her brother. As she goes to school now, she talks about conversations that took place between the classmates or how teacher punished someone in her class too. This means, sleep talks are reflections of children's everyday experiences; it depends mostly on how much external inputs they get to experience. Thus, child's surroundings and family environment (linguistic environment also) can affect their sleep talks.

During the interview session, Ikra's mother informed me that Ikra also talks in her sleep and she has been doing this since she learnt to talk clearly; interestingly, her talking issues are similar to Anna's. Besides, she describes cartoons and Barbie serials that she watches during day time in the TV. Complaining about her elder brother was also her common issue to talk during sleep.

Simmi's mother told that she also talks in sleep and she talks about mobile games of ('girls' dress up'), what her sisters tell her, what did they do during the day, how will she become like them when she will grow up etc. Simmi's elder sister loves to dress up nicely and does face make up too, Simmi follows her and her sleep talk reflects that too. Mro's mother said that he shouts at night 'where is my car?' as he has fascination of toy cars.

It can be concluded by saying that, children talks in sleep about their everyday activities and what they experiences mainly. I have seen that children who have elder siblings differ in their subject matters of sleep talks (as Anna or Ikra). But one thing is sure; sleep talk is environmentally and contextually influenced and characterized. Every child shows this ability of 'sleep talking', it is another cognitive development working on children's thinking and memorization abilities. Sleep talking is normal and completely a harmless developmental issue for any growing child until their sleep talk reflects their terrors or nightmares. Children's regular terrified sleep talk is another issue and it should be taken care of differently and with care.

4.2.2.3 ***Attention and memory.*** Learning to pay attention or concentrate on something is another important cognitive ability that helps a child to focus on one task or topic for a long period of time and once a child learns to pay attention, it continues throughout his life (Payne & Isaac, 2012).

Children under five years of age are likely to have short attention spans, typically 15 minutes or less; by the time the child turns eight years, it increases and the child focuses on one thing for a longer period and completes the given task. Children then get less distracted and become more skilled (Payne & Isaac, 2012). Like attention, 'memory' is another cognitive skill that helps a child to retain his so far learning and experiences that he gathered.

It is a way to build a base for future knowledge. In addition, children below five years face difficulty in long term memory retention, but as they develop, long term memory improves and helps the child to steadily build on the previous learning (Payne & Isaac 2012).

On the basis of the coded data the following categories can be discussed under the theme 'attention and memory'-

(a) Advanced sentence use

(b) Developing conversational skills

(c) Language used from previous experiences

(d) Asking questions

(e) Describing things and story telling

(f) Singing songs and rhymes

(a) Advanced sentence use: I am referring as 'advanced sentence use' to the stage of a child's life when he exceeds the two word combination or 'telegraphic stage' and starts using sentences of more than three words, with comparatively more complex grammatical features and verb forms. When a child starts using more complex sentences, his use of gestures becomes limited than before as he can express everything more clearly with words. He can also continue conversations and convey his needs and wants to others also.

This cognitive skill is a combination of memory and attention mainly. Examples of few advanced sentences collected from the participant children during the observations are like-

• Child Sunny:

Child Sunny's language was not that much rich verbally as he observed more and talked very less. When he spoke, he tried to finish quickly or only through gestures. His

longer sentence use stage started later than the other children. Almost at the age of 3 years his longsentences are found as data.One day when I was visiting his house, his mother gave us a snack and tomato ketchup with them. Sunny said-

C:/ḍekso baiya, sɔs ta lal rɔŋ, amar baba ɟe amake ek bakʃo rɔŋ kine ḍise oita ṭe o lalase./= (Look brother, this sauce is red, father gave me a colour box and it had red colour in it too.

-He praises his mother when she gets ready to go out, like-

C:/ma aɟke ṭomake beʃi sunḍor lagse./=(Mother you are looking very beautiful today.)

Words and structures used in the above sentences prove one thing and that is- Sunny might be using longer sentences at the age of three, but he is familiar with contextual use of sentences and his vocabularies are already richer than expected. He might be an introvert or less social child who doesn't feel like talking all the time.

• Child Ikra

-C: /eta aṭuri ṭanbir baba wale cobi lagay./=(This is a hammer, uncle hangs pictures on the wall with this.)

C:/eta ṭo sizar, kagoz kate./ (This is a scissor, it cuts paper.)

-Ikra could use long, meaningful sentences since she was 2 years and 4 months old. She had the habit of describing things, and probably this habit developed her language use. It also increased her vocabularies a lot.

Or she answers to questions like-

C: /glas ta ke pʰelecʰe?/= (Who dropped the glass?)

C: /gas ta ṭo nagal pabona, oita ṭo upore./= (I can't reach the glass, it's up there.) etc.

I have seen both Ikra and Anna talking a lot; even when there is no need to talk, both of them keep talking. It is a successful way to express language more appropriately.

• Child Mro:

According to Mro's family, he is talkative and answered to all the questions when asked. At the beginning he talked very less in front of me, probably because I was not his family member, but later it developed.

One day when I went to his house, his mother could not come downstairs as she was sick and sleeping. I was asking Mro's aunt what happened to her, Mro suddenly said-

C:/aste kɔt̪ʰa bɔlo, mamonir gum baŋle pete bæt̪a korbe./= (Speak slowly, if mom gets up from sleep she will have stomach ache.)

His mother said when he sees something attractive on TV, he says-

C:/ammu amake oi garita kinnya d̪io./= (Mom, please buy me that car.)

C:/ammu amake ei cɔklet ta d̪io./= (Mom, please buy me that chocolate.) etc.

Almost all the children started using long sentences from 2.5 years onwards. And the sentences were meaningful, contextually right; but grammatical use (verbs and tenses) were sometimes mistaken and this is normal for children of this age. The more they will talk the less they will make mistakes. Children will become capable of expressing meaning more productively only when they will have communicative language environment around them. So, it is the duty of the family members to engage children in all types of (appropriate for them) contextual conversations. Use complete sentences more in front of them so that they can learn vocabularies and contextual use of words.

(b) Developing conversational skills: Conversational skills development can be taken as a progressive form of advanced sentence use stage. A conversation requires involvements of two (or more) persons using the same topic in the same linguistic environment. It is a form of social contact development which requires skills like- thinking, reasoning, contextual meaning mapping etc. So, if a child is frequent in continuing a conversation, his language development is surely on the right track following the proper language milestones.

Researchers from the University of California, Los Angeles decided to identify the key factors that lead to the growth of a child's language. After observing 275 young children's (0-4 years of age) families, they studied adult speech, child speech, and use of television in the child's environment, and looked at the influence each had on the child's language growth (University f California, 2009). The following features have been found:

- Back-and-forth dialogue contributed most to the child's future language score (six times more than adult speech alone)
- Adult monologue (one-sided interaction, such as reading a child's book without the child's participation) was more weakly related to language development
- TV watching has no impact on the production of the language (positive or negative).

I disagree about the third argument. I have found that watching TV helps improve the vocabulary. While watching TV for a long time is harmful, child-friendly TV shows help to build languages (like- Barney, Sesame street, Meena cartoon, TV programs in channel Duranto etc.). And it has an effect on the production of language too.

But the key point of the above study is that, engaging children in a conversation is actually promoting their language competence. According to Dr. Jill Gilkerson, co-author of the UCLA report, "Talk is powerful, but what's even more powerful is involving a child in

meaningful interactions – the 'giving and taking' that is so essential to the social, emotional, and cognitive development of infants and toddlers" (University of California, 2009). Children, who haven't yet participated in a conversation, should be influenced to take part in conversation and/ or interact by sending nonverbal messages. Accordingly, the child only needs to hear the parents or other adults speaking. They can keep the child busy in conversation even when there is no one to one conversation or the child is not giving full attention to the speaker (like when the mother is cooking, doing the laundry, when they take food together or the child is playing alone etc.). Providing the child with a good language input is the key factor here.

Data that have been collected thoroughly contain many conversation examples. Some of them are like-

• Child Fuko-

This conversation was documented when the child was 3 years and 4 months old. The day after Eid ul AdhaFuko came to Sonargaon at his granny's place. When he started crying for his father (he didn't come), I thought of diverting his concentration and started talking to the child-

R:/t̪omad̪er gorukiruŋerc^{h}ilo?/= (Fuko what was the colour of your cow?)

C:/lal ʃad̪a./= (Red and white.)

R:/d̪uita?/=(Two?)

C:/na ækta, ʃad̪a./= (No, only one, White). Later the maid said the cow was brown.

R:/ʃiŋ c^{h}ilo?/= (Did it have horns?)

C:/silo, et̪̪to bɔro bɔro ʃiŋ./= (It had long horns.)

R:/amaḍer gorur na cʰoto cʰoto ʃiŋ./= (Our cow had small horns.)

C:/na, amaḍer tar bɔro bɔro ʃiŋ./= (Our cow had long horns). Fuko enlarged his eyes and extended his arms on both sides to show how long it was!

R:/leɟ cʰilo?/= (Did it have a tail?)

C:/silo ṭo, bɔro leɟ./= (It had a long tail.)

R:/wow!ɑmader gorur leɟ ṭo fukor tar mɔṭo eṭṭo bɔro cʰilo na!/(Wow! Our cow did not have such long tail like Fuko's!)

C:/hmm ṭomaḍer goru pɔca silo!/= (Yes. Your cow was not good.)

R:/ṭai ṭo mone hocche./= (I think so too). Fuko became very happy, so he extended the conversation on his own-

C:/amaḍer gorur gɔlay mala silo./= (Our cow had a garland around its neck.)

R:/amaḍer tar cʰilona./= (We did not have it.)

C:/silo na!/=(No!). He became so surprised!

R:/ṭumi amaḍer ɟonno ækta mala niye aʃṭe parlena?/=(Couldn't you bring one garland for us too?)

Fuko quietly thought for a while. Then suddenly he became angry and said-

C:/keu ki karo baʃay mala niye ɟay!/= (Does anyone take a garland to someone else's house!) . Fuko repeated this line twice.

R:/gele ki hɔy? ṭomake amra kɔṭṭo bʰalobaʃi. ækta mala aṇte parṭe na?/= (We love you so much, it could have been better if you brought one for us too.)

C:/na.si en ɟi ʈe ɟayga hoʈo na./= (No. It would not fit in the CNG auto rickshaw.)

At the beginning of the conversation, he was answering only when he was asked something, later he started enjoying and directed the conversation to the way he wanted it to. Though, most of the information he gave was self made.

Everyday interactions of all the children are basic examples of conversations. So every child- adult language interaction can be specified and categorized under the term 'developing conversational skills'. Capability of continuing a conversation is the proof that the child is responding after understanding what is said to him or what he has to answer in reply to a question. Thus the parent can be ensured that the fact that the child is developing normally with general linguistic competence. It is a vital language development that involves meaning acquisition, grammatical competence and brain development as well.

(c) Language used from previous experiences: Sometimes children use language that they have heard previously or respond to contexts that they have experienced before. Such use of language has been categorized and discussed as 'language used from previous experiences'.

To reuse previous knowledge, children have to depend on memory and reasoning skills mainly. I have experienced that past language experience helps them use language in proper contexts in the future and percentage of successful communication rate increases comparatively. There have been many instances I have observed during the data collection session when the child said something at the moment of time that proved to be perfect meaning mapping for that context. He or she did not get time to imitate someone else's answer or nobody taught them what to say at that time. I preferred to sort out these data as the language used from previous learning. Examples of such language use are as follow-

• Child Mro-

Mro knew many practical things besides academic knowledge. He learned these from his family members (especially the females) when they did household chores; for example through by going to bazaar with his grandfather or how to cook rice from his mother. Some of his language uses reflect this-

C:/aɟke ḍaḍu ceua mas anse ḍupure ceua mas ḍiya bʰaṭ kʰabo./= (Today grandfather brought 'cheuya' fish, I ate rice with that.)

C:/bʰaṭer cal niya dʰuiṭe hɔy naile mɔyla tʰaika ɟay./= (Rice needs to be washed before cooking or it remains dirty.)

C:/lɔbon kɔm hoise aɟke./= (The curry lacks salt today.)

When Mro goes to the bazaar with his grandfather, he reminds him to buy the things his family members like to eat. Like, buy 'Banana' for aunt or 'Betel leaf' for grandmother etc.

Mro recognizes some common signs and symbols also, like-

-'Fan' sign from switch board (If he says he will turn on the fan that means he knows how to do that.)

-'Light' sign from switch board

-'Calling bell' sign

-'School ahead' sign.

-Telephone sign.

-No smoking sign.

• Child Simmi-

In the evening, Simmi's mother goes to the nearby park to walk. Simmi goes with her too. From there she learnt some related words. Like-

C:/hatar ɟuʈa./= (Jogging shoes.)

C:/gʰaʃ./= (Grass.)

C:/mɔyla./= (Garbage.)

C:/pore bæʈʰa./= (Pain due to fall.)

C:/komor bæʈʰa./= (Back pain.)

Later, when she described her experiences in the park, she used these words frequently. One day when the children were playing together in the living room, Simmi complained that she has back pain and after asking how that happened, she said because she jogged in the park (she actually plays there). This is why children need to be exposed to contents as they collect vocabularies from practical experiences.

When Simmi describes something, she tries to use English words a lot that she already knows. Like-

C:/amra ɟe ice cream kheyesilam ʃeta onek big silo./= (The ice cream we had was quite Big.)

C:/amar ɟamata pore amake wow lagse na!/= (Am I not looking wow in this dress!)

C:/ɖiɖira ki iʃkul ʃuz porese?/= (Did sisters put on their school shoes?)

C:/ami ṭo garl na! ṭai ɟama pori./= (I am a girl! that's why I wear frocks). She learned these and many more words mostly from her sisters and from her mother when she talks to her other daughters.

Sometimes children said something which amazed me. Like, one day when Sunny's toy car's music was not playing loudly like before, he called his mother and said-

C:/ammu, gayi bæta bæta./= (Mother, the car's battery!)

He wanted to say that the battery might have gone down. He was only 2 years 3 months old then. This example explores the fact that, memorization, thinking and reasoning are the issues related to children's contextual language usage. And it is truly the blessings of the Almighty that a child, at a very young age knows the pragmatic use of his mother tongue.

(d) Asking questions: Asking questions is a cognitive development that helps a child pay more attention to what he or she has been exposed to and also challenges the child's ability to choose specific words to describe his or her thoughts (Chouinard et al. 2007).

By the age of two a child is involved in conversations with others. At the same time, the child starts asking questions too as an attempt to keep the conversation going; he also loves answering simple questions (Sullivan, 2019). His curiosity and interests to know life and things inspire him to get into question- answer sessions.

To ask questions a child need to have- a) attention skills that enable him to concentrate on a specific issue and b) thinking skills that will help him to work out tasks and find solutions. A child is only asking questions when he is paying attention to the language interaction he has been attending to and as a part of his cognitive development of reasoning things.

During the observations I have seen that children start asking questions (mainly through intonations) at their 'Single word' or 'Holophrastic' stage. If they are given one thing, they might ask about the second option which was not offered to him. One day I saw that both coca-cola and a bottle of water were kept on the dining table, Mro made a sound that indicated his interest to drink something from there; his mother gave him the water bottle and he said- /oita?/ (What about that? He indicated to the coca-cola bottle). Moreover, children used interrogatives in their 'Telegraphic' or 'two word combination' stage of language use also; like- /eta ki? / (What is this?) or /otaki?/ (What is that?). These are their earliest pattern of asking questions.

Child Sunny used to understand questions and answer to them since his 18 months of age. At first he used gestures, eye movements and single words to answer. Like-

R:/ Sunny ʈomar kumirta koi?/ (Where is the crocodile?)

C: /eiyo/= (Probably he said 'here it is'.)

R: /ar eta kar?/= (And who owns this ball?)

C:/oiya/= (Probably he said 'hers'.)

Later when Sunny's language production developed further, he started asking more questions on a single issue. Like- one day I went to invite his family for my daughter's birthday party, Sunny asked the following questions to me-

C:/æpi badde?/= (Happy birthday?)

C:/keik ɖibe?/= (Will you give a cake?)

C:/tɔmra kʰao keik?/= (Do you eat cake?)

C:/Anna katbe?/= (Will Anna cut the cake?)

C:/k baiya katbe na?/= (Brother K will not cut the cake?)

R:/ʈumio ɟabe?/= (You will also go.)

C:/amio katbo?/= (Will I also cut the cake?)

C:/kalo keik?/= (Is it a black cake? He was talking about chocolate flavour.) etc.

Like these he asks many more questions to meet his curiosity.

• Child Anna:

At the beginning Anna's questions were simple and informative, like-

C:/ki kocco?/= (What are you doing?)

C:/ki kacco?/= (What are you eating?)

C:/eta ki?/= (What is this?)

C:/ami ki cokkek kacci?/= (I am eating chocolate?)

Later her questions became longer and depended more on her everyday experiences. Like- Anna asked questions from the TV shows she watched like-

C:/anti ta kaɖcʰe keno?= (Why is the aunt crying?)

C:/caɖor ɖiye ʃuiye ɖilo, abar utʰe gelo keno?/= (He laid on the bed, then why did he wake up again!)

I personally believe that children learn more if they question a lot on every issue and get answers too. As their curiosity takes form of asking questions, they need to be dealt with sensitively and thoughtfully. There are many parents who do not answer to their child's

questions at once or if the question seems complicated to explain they do not answer at all. Such attitudes gradually make the child less interested to take part into the conversation and he starts hiding his feelings. We might not find the question asked by the child important or worthy, but for them the answer means a lot and certainly helps to increase their thinking ability.

Moreover a child, who experiences life more, knows more. So young children (until they are capable of knowing things themselves) should be encouraged to explore their world (their surrounding environments) more and parents should try to make a healthy environment for their children's mental development too. How the child asks a question depends mainly on the child's thinking ability, attention and reasoning skills. Parents and others need to be very precise and informative while answering to a child so that, it meets their curiosity as well as does not overwhelm them with extra information.

(e) Describing things and story telling: A child's ability to describe things starts usually at the age of three. By that time, they can combine many individual words, use simple sentences, combination of sentences (joining a couple of simple sentences) to express meaning. After that, grammatical items and increased vocabularies help them describe anything they want. It can be a story they have heard, any incident, cartoon show etc. Some children are able to describe everything they have witnessed or know, but usually at this age describing is something like summing up. Child describing things ensures that-

-the child's vocabulary acquisition is developing and

-he can comprehend well.

Some examples of children describing something are given below-

• Child Ikra-

When I asked Ikra about her new bags, books and other school accessories, she said-

c:/amar bæg t̪o papa baŋkɔk t̪ʰeke anse. piŋ kalarer fozen bæg./= (Father brought me a pink frozen bag from Bangkok.)

c:/baiyar ta ayron mæn, oita̪te lait o ase./= (Bhaiya's one is an Iron Man and that has light too.)

c:/papa water bɔtol ar bɔx o anse./= (He brought water bottle and snack box too.)

C:/amar ɟonno blu fozen paise. kint̪u baiyar ayron mæn pay nai./= (He brought blue frozen for me, but could not get an Iron man box and bottle for my brother). Ikra started describing things in detail.

Ikra's brother goes to 'Karate' class. Ikra also goes sometimes with her mother to pick him up. When they return home and father (or anybody) asks at night what happened, Ikra does not let her brother describe anything. She tries to describe everything with necessary body languages and acts. Like-

C:/baiya̪der hai hui kor̪te hɔy./= (Brothers' have to make sounds like 'HaiHui'.)

C:/ʃɔbai saide saide boʃe, karon majkʰane mæt./= (Everybody has to sit around as there is a mat in the middle.)

C:/ticar eʃe baiya̪der maramari kor̪te bɔle./=(Teacher comes and asks the my brother and all to fight.)

C:/ʃobai maramari pereche kiṇtu baiya pare nai./= (Everyone managed to fight except brother.). Her brother started taking classes only last week, so he is still watching and learning the techniques.

• Child Sunny-

-Sunny's father bought a new sofa set. Sunny tried to tell K how it was brought to their drawing room in detail-

C:/ɟano, eṭo bɔrotake maṭʰay kore nise tʰeke utʰaise ar eibabe tʰele tʰele dukaise rume/= (You know, they carried this big sofa from ground floor to our apartment on their head and then pushed it inside the room like this- he acted it.)

-I saw a small red mark on his right cheek. I asked him what it was, Sunny's mother wanted to answer, Sunny did not let her answer. He said-

C:/amra babar ʃaṭʰe gesilam ɔmna park e, boiʃak silo na!

oikʰane dɔl kinsilam ar aŋkel aʃsilo. aŋkeler haṭe pleit silo, amake ar appi ke akay ḍise./= (We went to 'Ramna' park with my father as it was 'Pahela boishakh'. There we bought a doll. An uncle was there with a colour palette on his hand, he drew this on our cheek). During such festivals in Bangladesh, students from 'fine art institution' walk around with their colour palettes and offer 'face painting' to all.

During my observations I have seen that all the children do not describe everything in detail, some of them only say things when asked for them. I have observed that boys try to finish describing something as fast as possible; they do not like to add details like the girls do. Sometimes they take long pauses after telling a partial story and then finish the rest without much interest or as question- answer format. On the other hand, girls love to say

everything in detail, even if it's not needed. They have introduction, middle section and ending of everything. They use lots of linking words like- 'then', 'again', 'after that', 'also' etc. It seems like they enjoy describing and they don't even get tired in doing so. I really find it amazing to see how the children recall so many things with detail. Their wordings are amazing and they make up some parts of the story when they start describing. Their expressions are remarkable with sufficient gestures and facial expressions. They even try to imitate the wordings and the expressions of the actual person who told the story or who was involved in the conversation.

This wonderful ability to memorize and illustrate something requires proper attention and it is a major cognitive development as well.

(f) Singing songs and rhymes: A child must have a good memory and longer attention spans if they want to learn rhymes or sing songs. It influences child's language, cognitive, social and emotional developments.

Sally Goddard Blythe is a Neuro-developmental education specialist and director of the Institute for Neuro-Physiological Psychology. According to her, traditional lullabies and nursery rhymes for babies and infants (especially before they learn to speak) are a key precursor to later educational success and emotional wellbeing. She says that, music is a special kind of expression. Lullabies, songs and rhymes of any culture bear the mother tongue's 'signature' melodies and inflections, preparing the ear, voice and brain of a child for language" (Blythe, 2011).

Before they learn to talk, singing traditional lullabies and nursery rhymes is an important precursor to subsequent educational achievement and emotional well-being. Blythe (2011) said in her book *The Genius of Natural Childhood* that, traditional songs improve the

capacity of a child to think in words. She also believes that listening and singing along with rhymes and songs utilizes and improves both sides of the brain; even Neuro-imaging has shown that music requires more than just localized hot spots in the brain, covering large swathes on both sides. Blythe claims

that singing and then listening to a child successfully enhances their ability to communicate. Music and rhyme improve the child's skill in spatial thinking, which can also strengthen the child's logical and science skills.

When children hear rhymes and songs, they hear the sounds and the features (especially the supra segmentals) of the language. When parents sing to a child at home, they love the time and contact with their parents. Changing vocal tones or variation in the song's sounds, helps the child understand the natural sounds of a language. Using different rhyming words helps children refine the sound of the word in their ears and understand how we blend and combine sounds to build sentences. Sometimes lines from rhymes become children's early sentences too (Kenney, 2005). Most of the rhymes and children's songs have beginning, middle and endings; so children learn sequencing also.

Nursery rhymes maintain a stable and happy relationship between parents and children. Healthy physical interaction between a parent and a child or between children is often beneficial for social growth. In addition, humorous nursery rhymes encourage children to develop a sense of humor (Kenney, 2005). That is why developmental psychologists often recommend learning with rhymes or songs when parents want to enhance their children's language and cognitive development together.

Practically all the children invovled could memorize rhymes, both Bengali and English. Child Sunny's most of the rhymes were Bengali rhymes until his father bought few

English rhyme books for him when he was 3.5 years old. His parents (mother especially) did not sing any English rhymes with him earlier, so he knew only the Bengali ones.

Children, who went to English medium schools and attended pre-play groups, learnt rhymes with body movements and acts. And they enjoyed memorizing them after they returned home from school or on the way home. Almost all the participating children learnt Bengali songs from schools, parents and also from TV shows. They all learnt national anthem quickly after they started going to school. After four years and above the children started showing versatilities in selecting songs. Anna and Simmi learnt couple of Hindi songs from TV, Ikra on the other hand learnt few lines of an animated Disney movie's title song. Later, when they joined music class, their songs were selected by their teachers.

At the beginning, tunes and wordings were not clear and not 100% imitative too. Even they made their own words when they forgot the originals. Gradually they overcame those drawbacks. One noticeable thing is, they did not bother about getting meanings of a song in their early years (before 3 and more). Later, when their vocabularies and meaning mappings developed, they wanted to know the meanings of the songs. Like, there is a famous Bengali song 'Amar bhaiyer rokte rangano ekushe february...'based on the Bengali 'Language Movement' of 1952. Anna asked me why it is about brother's ('bhaiyer') blood sheds, why not sister's. Moreover, she assumed herself that perhaps sisters were not present there that day. So, children think about the meanings of the songs but all of them do not share and follow the same pave and there is no specific stage or strategy for that too. But for all children, music and rhyming are essential as they help in early language development.

I personally admire children who laugh, sing and enjoy life. Singing is a way to express our feelings and emotions and it is also a way to let us know that our children are

happy and enjoying themselves. So, I personally encourage my children to listen to more music and participate in school concerts and act out their rhymes and sing songs loudly.

4.2.3 Applying linguistic features. Under this category I have included data that express some linguistic features directly. Linguistic features can be both universal and language specific, but as my participants are all Bengali spoken children, the following features are language specific and based on the participants everyday Bengali language use.

The following linguistic features have been coded from the observation data.

(a) Onomatopoeic and Reduplicated words

(b) Original word with imposed meaning

(c) Semantic or form-meaning mapping

(d) Form-Meaning mapping error

(e) Single word multiple meanings

(f) Use of supra segmental features

(a) Onomatopoeic and Reduplicated words: Words that are formed by repeating two similar or identical parts are reduplicated words, like 'ding dong' sound of a grandfather clock. On the other hand, words that mimic the noises produced by particular objects are onomatopoeic words, like the 'buzzing sound' of bumblebee.

Reduplication and homonymy are phonological acquisition techniques, which occur at a very early age. Research shows that such techniques benefit from deficient distribution of sound- inventory and data. The data indicate that these techniques can also occur in the linguistic development of the child later on (Ingram & Fee, 1982).

The reduplication of syllables is one of the most common first language acquisition processes. Setting down reduplicated words is simply a phonological phenomenon, but they

are used by the children as substitutes of adult expressions of polysyllabic words (like, 'bye bye' for goodbye).

One of the most significant features of baby talk in all languages is reduplication. The key feature of reduplication of simple syllables is the creation of meaningful words (Ingram, 1989). It is in reality, an approach to compensate for the inability of children to represent or generate a second syllable of any word. The proportion of reduplicated utterances decreases when children increasingly and correctly start to pronounce polysyllabic words (Schwartz et al., 1980). Like-

C:/afaf/=(Giraffe)

-/papama/= (pajama)

-/ʈuʈu/for the Bengali word/ɖuʃtu/=(naughty) etc.

Sometimes when children face difficulties in producing the final consonant of a mono- syllabic word, they use reduplication; but this happens only to a smaller extent. If children use too much reduplication, it does not mean that they have greater difficulty in reproducing multi- syllabic words a lot. Rather, it is an indication that the children are at the onset of phonological development and are focusing on learning multisyllabic rather than mono-syllabic words

(Ingram & Fee,1982).

Participant children have a record of using many reduplicated as well as onomatopoeic words in their daily language starting at the age of 18 months. Some of the instances are as follows-

• Child Anna:

-A conversation between Anna and her father-

F:/ṭumi kibʰabe aiscrim kʰeyecʰo?/= (How did you eat ice cream?)

C:/gʰoʃe gʰoʃe kʰeyecʰi./= (I ate it by 'rubbing'.)

F:/ gʰoʃe gʰoʃe?/= (By 'rubbing'?)

C:/na baba, cuʃe cuʃe kʰeyecʰi./= (No, I sucked it.)

C:/baba, ami cuʃe kʰaini, ami kammiye kʰeyeci./= (Father, I didn't suck it but I ate in bites.)

C: /kamme kamme./= (In several bites.)

She used three reduplicated words to convey a single meaning and she did it only to express the meaning she particularly wanted to mean. Some onomatopoeic words used by her are like-

C:/tʰuʃ kore pore gelam./= (I felt with the sound 'thush'.)

C:/dʰuʃ kore kʰeye fellam./= (I ate it with the sound 'Dhush'.)

C:/dʰildʰal/= (A sound used to express her desired meaning.)

-If she heard two people speaking in front of her in low voice, she used to say-

C:/fiʃfiʃ kore kaṭa bolona./= (Don't whisper please.)

• Child Simmi-

-Simmi's mother was killing mosquitoes with an electric bat, Simmi saw a cockroach on the floor and she wanted her mother to kill it. So she said-

C: /ma tʰaʃtʰaʃ/= (She asked her mother to kill the cockroach by making the sound of the bat thrashing the insect). Some more words used by her are like-/huʃhaʃ/= (In a rush.), /dʰaʃdʰaʃ/= (Sound of beating), /kɔlkɔl/= (Sound of a running water) etc.

Sometimes children use reduplicated words to express the depth of the situation or the seriousness of the matter; like-

C:/ɟore ɟore cap ḍao./= (press hard- to open a ketchup bottle.)

C:/pa ta ɔnek ɔnek bæṭa/= (I have severe leg pain)

C:/baiya amake ebabe ebabe merece./= (Brother beats me like this).

And their use of onomatopoeic words can be characterized as a strategy to make communication more meaningful. For example, 'I can run fast' is a simple sentence that creates a complete meaning. But using words such as, /huʃhaʃ, daʃ, mɔtaʃ/ makes the expression more precise and understandable. Some examples of onomatopoeic words of the children are-

C:/mɔʃa kaner kacʰe mɔmɔ korcʰe./= (the mosquito is making buzzing sounds in my ear.)

C:/aŋ aŋ kore kʰelam./= (sounds of eating.)

C:/gʰapuʃ gʰupuʃ kore ʃɔbḍo korce baiya./= (How his brother is making sounds while eating.)

C:/motoʃ motoʃ kore har kamor ḍicce./= (The sound of biting bones.)

C:/pani kʰacce ɟe ʃetar pɔc pɔc ʃɔbḍo hocce./= (Sounds of drinking water.)

C:/tip tip kore briʃti hocce./= (Sounds of raining.)

C:/tʰaʃ tʰaʃ kore cɔr marlo./= (Sounds of slapping.)

C:/ḍɔpaʃ kore pore gelam./= (The sound of falling on the floor.)

C:/kriŋ kriŋ kore telifon baɟce./= (Sounds of drinking water.)

C:/baba tiŋtoŋ kore bel baɟalo./= (Sounds of bell ringing.)

(g) Original word with imposed meaning: This feature is categorized completely on the basis of participant observations. I have found the children using some already recognized words in their own way. They imposed meaning of the words according to their own contexts. For example-

• Child Anna-

-Anna wanted to have some milk. So she said-

C:/piz ma ḍuḍu ḍao./= (Please mother give me some milk.)

m:/piz mane ki?/= (What do you mean by 'Please'?)

C:/piz mane piz bolle ḍuḍu ḍiṭe hɔy./= (Please means to give milk.)

-Anna made imaginary chicken lollipop out of blocks and asked her brother to have it-

C: /baiya piz aʃo ciken kao./= (Brother please come and have this chicken.)

B:/ciken ki?/=(Asked her what she means by chicken?)

C:/ciken mane coklet./= (Chicken means chocolate). Like this, she used the word /bikale/ to mean right now-

C:/bikale ḍiṭe hobe./= (You have to give it 'right now')

C:/bikale ɟeṭe hobe./= (You have to go 'right now')

-She found a marble in the veranda, picked it up and said-

C:/amar ginna korce./= (I am feeling disgusted!)

M: /gʰinna ki?/= (What does 'ghinna' mean?)

C:/ei ɟe mɔyla, gʰinna mane mɔyla./= (Dirt. 'ginna' means dirt.)

C:/ei ɟe mɔylagulo ke bolci./= (I am talking about these dirt.)

-Anna gave a burp and said-

C:/amaro gæʃ hoye gecʰe babar mɔṭo./= (I also have gastric problem like my father.)

M: /gæʃ ki ma?/= (What is gas?)

C: /oi ɟe bomi eʃe ɟaccʰilo./= (I was feeling like vomiting, she used the word 'gas' to mean 'vomiting feeling'). Again-

M: /mɔyla haṭe bʰaṭ ḍʰorbe na./= (Your hand is dirty, don't touch the rice.)

C:/mɔyla koṭʰay, haṭ ṭo feʃ i acʰe./= (Where is dirt, my hands are fresh.)

M: /freʃ ki?/= (What is 'fresh' ma?)

C: /oi ɟe haṭ ḍiye ḍʰorle kicʰu hɔbe na./= (It means I can touch freely.)

One day Anna and K were catching butterflies and putting them in a poly bag. Mother told them that they have /ɟibon/= (life) so, they are suffering. Couple of days later, again K was catching butterflies, Anna said to him-

C:/bʰaiya erokom korona oḍer ɟibon acʰe./= (Brother don't do this. They have lives.)

M:/ɟibon mane ki?/= (What does 'life' mean?)

C:/ɟibon mane urṭe para ma, ar bʰaiya ɟoḍi oḍer ḍʰore fele ṭahole ṭo ura bɔnḍʰo h oye ɟabe ma./= (Life means 'to fly' mom. If brother catches them, they will not be able to fly.)

During the interview session, Fuko's mother said that when he started going to school, every morning he used to say, 'I am going to office like my father'. When she asked Fuko what does he mean by 'office', he replied,

/ɔfis mane ʃɔkal ʃɔkal bæg niye baire jawa./= (Office means to go out early in the morning with a bag). Every morning he sees his father going out for office with a bag. So when his turn came to go somewhere in the morning in a regular basis, he thought it was going to office too.

When Fuko started using the cell phone, he used the word 'delete' frequently; for him delete means 'not being able to find' the expected game or application that he is looking for.

I personally feel that one of the ways children imitate words is by applying the word somewhere they find it feasible but without knowing the actual meaning. This category of imposing self made meanings to original words is actually another form of imitation. But this stage does not last long as every time they misuse a word, parents make immediate corrections; as a result, next time the word is used with actual meaning by the child. So, it can be taken as a temporary phase in meaning development process of children.

(c) Semantic or form-meaning mapping: Semantic mapping or form- meaning mapping is a cognitive mechanism where a new concept is learned on the basis of a single information unit. It is an important phase at first language acquisition in young children.

Research indicates that children as young as two will begin word mapping (Spiegel & Halberda, 2011).

When a child can use language to communicate and satisfy his or her needs, he or she can already map form with meaning. Thus all the above discussed coded categories are results of child's meaning mapping ability.

But still I have coded it separately because I wanted to introduce the readers to the amazing process of child meaning mapping or 'Semantic Mapping' which also works as an indicator of normal language development in any child. Few examples to indicate how meanings are conceptualized with forms by children are given below-

-In a rainy day child Anna wanted to go out, her father forbid her and she became angry, she said-

C:/ami acina, briʃti t̪o ki oyece?/= (Don't worry about the rain, I am here.)

C:/t̪omake cʰaṭa ḍe ni ɟabo t̪o./= (I will take you under an umbrella.)

C:/riʃʃar fud t̪ule ni ɟabo./= (We will also pull the rickshaw hood ahead).

She was interested to go out anyhow. So she started using words that she already knew or sentences she had heard before to express her desperation. She knew the use of 'rickshaw hood' and in this context, meaning mapping was done perfectly. Another conversation between Anna and her father is like-

F:/amar payer paṭata tipe ḍao t̪o/= (Massage my foot or 'leg leaf' if literally translated in Bengali).

C:/payer abar paṭa hɔy naki?/= (Can foot have 'leaf'?)

C: /oh! baba, gac^{h}er paṭake bolc^{h}e payer paṭa./= (Oh! You are mistaking tree leaf as foot leaf.)

Like Anna, Ikra also maps form and meaning nicely. Her mother bought a cooling body powder which had menthol in it. After using it for the first time, she said-

C:/ma paudar e ɟ^{h}al/=(Powder is spicy; she expressed the cooling sensation of menthol as spicy).Besides, all the children used language forms like-

C:/oke/= (Alright?)

C:/t^{h}ik ac^{h}e?/= (Is it okay?)

C:/kinṭu!/= (But!)

C:/aʃcoɟɟo./= (Surprising!)

C:/sappaiz/= (Surprise!)

C:/b^{h}iʃon./= (Serious.)

C:/ekḍom./= (Completely.)

C:/eṭo tuku./= (This much). In most of the cases semantically they use the right word on right time, like- if anybody asks Fuko to get up early in the morning, he says-

/amar arektu g^{h}um baki ache, ektu./= (I have little more sleep left), he could quantify the time.

The above examples of form-meaning mapping started in each child in between 2 to 2.5 years of age. But I think semantic mapping has a few prerequisites like-

-learning the word

-learning the meaning of it

-error in meaning mapping (imposing different meaning if the original one is forgotten)

-pragmatic misuse (use of word in appropriate context)

-correction of the adults

-properly mapped through learning or imitation.

After crossing these levels, a child starts mapping meaning correctly and in the right contexts. Though the cognitive process of semantic mapping is natural, it needs a stimulus from surrounding as well as learning from adults or pure imitation to succeed.

(d) Form-Meaning mapping error: Generally form-meaning mapping is a process in which children quickly come up with an understanding of the meaning of an unknown word they hear in a well known and highly organized social interaction; and children often map nouns and verbs. When this idea formation process does not meet the right track, an error occurs. In the previous category of semantic mapping, I have pointed out a few steps that lead to successful word- meaning conceptualization. If those steps are not developed in a child, he is expected to make an error in mapping. But as I have mentioned earlier, this process is temporary or lasts for a very short time, as missed or improper use of language use by a child is corrected by the adults in the family. For example if a child uses 'ball' as overextension of the word 'watermelon', he will surely be corrected by his parents or other caretakers. As a result, next time he will not make the same mistake (almost in all cases).

The process of making over extension and under extension is part of semantic error. Like- at first children do not always get the idea that some of the kinship terms have fixed application; for example terms like-/baba/(father) and /bʰaiya/(brother) or /apu/(elder sister) are the terms that the child has to use. But they make errors and say-

C:/ma ʈomar bʰaiyake bolo ʈo kʰelna ta diʈe./= (Mother, tell your brother to give me my toy back.)

C:/ʈomar baba ke bolo ami dakcʰi./= (Tell your father that I am calling him). They think such kinship terms are common to all family members. Again, children make mistakes in using the right quantifier also. They say-

C:/ækta pani ɖao./= (Give me one water.)

C:/nak gulaʈe bæʈʰa pelam./= (I hurt my noses) etc.

Another common error is like calling all the same aged playmates as 'boys' or 'girls', like Anna used to say-

C:/aɟke amra ʃɔb galra mile kʰeleci./= (Today all the girls played together). But there were also boys present. Moreover, mentioning all the diapers as 'pampers'; teaspoon, fork or tablespoons as 'tea spoon' was observed in Sunny and Ikra's language use.

Another common semantic mapping mistake is found when children try to use verb forms. Like, the child says-/ɟacco/ (going?), /ɟabo/ ('going' in the present perfect form(1st person), /ɟeccilam/ ('going' in past perfect form). But in Bengali there is no such form as /ɟeccilam/. After listening to the elders' she learnt /giyecʰilam/. Such verb mapping error is seen in all the children at a certain time period in their language development stage.

Even at 5 years of age, participating children are seen to make errors in meaning mapping; although the rate is lower than before. They try to copy what their teachers tell them or they use words heard in the classroom from the teachers or other students and error occurs frequently. I have observed Anna (age 5 years) interpreting words wrongly after

hearing them from TV; she used sentences like- 'I have done it' when she is ready to go to bed. I asked her what does that mean; she said that she has finished brushing, cleaning and putting on night dress. Actually, she is correct from her point of view in semantic mapping. So, it can be said that meaning mapping depends on the individual's perception also; what is incorrect for the listener, might sound alright to the speaker. I think making a semantic mapping error is a very important part of child's first language acquisition. Children learn through mistakes, and as language development is a gradual process, making errors, mistakes are part of the process too.

(e) Single word multiple meanings: Examples of single word with multiple meanings are mostly found in the holophrase or single word stage. Children use some words to express multiple meanings. Like-

-/ɑllah/ as (a)'Allah' the almighty and (b) A beggar who begs in front of Anna's house taking the name of 'Allah' the almighty.

-/baʃ/ (brush) as (a) tooth brush, (b) someone is brushing her/his teeth and (c) the child is asking someone to brush teeth.

-/ʈaʈa/ as (a) good bye, when someone is leaving (/baiya ʈaʈa/), (b) to mean someone is going out (/baba ʈaʈa/)and (c) the child wants to go out (/beibi ʈaʈa/).

-/ha/ as (a) Open your mouth (/mɔm ha/), (b) to mean the child is hungry (/beibi ha/).

-/mɔm ɟuʈa/ as (a) these are mother's shoes, (b) where are my shoes? (c) Here are my shoes and (d) I cannot find my shoes etc.

Single word multiple meanings stage also lasts for a short period. As soon as the children's vocabulary expands and they use different words more, depending on single word to mean several meanings decreases and gradually ends up.

(f) Use of supra segmental features: Supra segmental features include stress, intonation, juncture etc. In meaning acquisition, these features reflect the pragmatic perfection of any language (Schwartz et al. 2015). Use of any of these features ornament the language and helps in transporting meaning minutely.

I have seen the participants using stress and intonation mainly as they are too young to acquire the rest of the features. Their use of stress on words is to put emphasis on what they are saying. They put stress on syllables or the whole word to establish it and make others get their point. Sometimes, they express anger or insistence by putting stress on some of the words. Like-

C:/amake t̪úmi niye ɟaó ni kéno?/=(Why did you not take me?)

C: /t̪u'mi' bɔ'lo' ke'no kore'cʰo?/=(Tell me why did you do that?)

Intonation helps them to turn assertive sentences into interrogatives. Like-

C:/amio ɟabo ma?/= (Will I also go mother?)

C:/orao aʃbe bikale?/= (Will they also come in the afternoon?). Like these sentences, many more questions are asked by the children through intonations. Other than the above mentioned features, some of the children had been using some adverbials (both Bengali and English) to indicate degrees of intensity-

C:/kɔt̪o ɟe ɟʰal hoyecʰe./= (The curry is too spicy!)

C:/ki ɟe mɔɟa lagcʰe kʰet̪e./= (How tasty it is!)

C:/supar beyaḍob./= (Super misbehaving.)

C:/supar pet bæt^{h}a./= (Super stomach ache.)

C:/supar mɔɟa./= (Super tasty). 'Super' is the expression used by child Anna to express the intensity of an issue.

4.2.4 Using language for personal benefit. Under this title I will discuss and provide examples of language use that are completely analyzed on the basis of the participant children's language use. No previous theory or journals have mentioned about these features; thus I am classifying the following categories as the researcher's personal findings. Moreover, explanations are added from the language data that have been collected during the observation session.

I have seen that children (the Bengali spoken participants) sometimes use language specifically to fulfill their demands and needs. They try to manipulate their parents too by driving the language on different tracks that suits their needs; like- implication of unnecessary emotions, facial expressions or gestures along with the spoken language. Or they choose words that do not expect from them at that moment and at that age of course. Moreover, children are seen to be shifting blames on others for their mistakes so that they are not scold or punished by their parents or manipulating language to serve their purpose. Thus child language features that are suitable to categorize under the title 'using language personally' are as follows-

(a) Blame shifting

(b) Semantic negotiation or language used for emotional manipulation

(c) Own word generation

(a) Blame shifting: One of the unique and amazing features I have observed in the

child's first language acquisition period is 'blame shifting'. It happens when children blame others (persons or even external circumstances) for their mistakes and mis- behaviour. Whether they did something wrong, failed to do something right or feel reluctant to own up to their part or responsibility. Like- 'you never give me what I want', you don't allow me to watch my favourite cartoon even', 'you never let me stay up late' etc. Some of these are normal and it will take some time for the child to be more tactful or/and self responsible. Shifting blames for the young children does not necessarily indicate that they are going to become a bully in the future.

Toddlers and young children shifting blames on others are natural stages of language development. In fact, it serves a vital developmental purpose when the child does not know how to handle conflict or disappointment. Parents of young children deal with this issue frequently. Some of the children may also deny blame when no one is there to blame upon or some of them blame even when caught 'red handed'.

There is little research related to gender differences in this area, but boys and girls appear to be equal to engage in denial of blames or shifting blames on others. In psychology this tactic of blaming is taken by the traditional theorists as one of the automatic mental behaviours which can be conceptualized as 'ego defense mechanism'. In such cases, children or adults project (sometimes unconsciously) blames on others for the deeds or the guilt they feel far to acknowledge as their own (Simon, 2009).

Linguistically, I will characterize children's 'blaming' tactics as a diverse way to express and use language as a part of first language acquisition. I have seen in my observations that the young children (2-5 years) blame their misdeeds on others only as a reflection of their innocent intentions of getting rid of punishments that they are expecting

from their parents. I find that completely childlike (unless it becomes habitual and pessimistic), as it changed over time and has been corrected by their elders.

Some examples of the participant children's language used for 'blame shifting' are like-

• Child Simmi-

Simmi started blaming others since she could use simple sentences only. She blames others for the mistakes she did; like- breaking glasses, wiping wet hands on the curtain etc. She would say 'Asha'(the maid) did it. One day I saw a torn doll in her living room and asked her-

M:/ei ɟe puṭul ta ke cʰirecʰe, ṭumi?/= (Who tore this doll? You?). She simply said no by moving her head side to side without any second thought. But her mother said she did it. -When she sleeps at night, saliva drops on her pillow. In the morning when mother says-

M:/beibi ḍækʰo ki korecʰo! eta ekta pɔca kaɟ holo na!/= (Baby look what have you done! Isn't it a bad thing!)

C:/egula ki? ami korecʰi naki! ḍekʰe ṭo mone hocce keu pani ḍʰalse!/= (What are these? I didn't do that. Looks like somebody spilt water here!)

Simmi's elder sister is 7 years older than her, Simmi is afraid of her, so she blames especially on the maid (who stays the whole day with her) and on her younger sister mostly.

C:/ami koṭay tibi sarlam, oi na eʃe amake sere ḍilo!/= (I did not turn on the TV, the maid came and turned it on for me!)

C:/ami ɟaccilam ar glas ta emni emni nore pani pore gelo!/= (I was walking by and the glass moved all by itself and water spilt.)

C:/neil poliʃ ki ami feleci? ɑmi ki ḍei? ʃot ḍir haṭe ḍekesilam./= (I didn't drop the nail polish. Do I use them? I saw it on younger sister's hand.)

C:/pepi tip ḍilo ar dim ta bʰeŋge gelo!/= (Pepi pressed the egg and it broke.)

C:/almarir ḍɔrɟa ṭʰeke coklet ta emniṭei pore gese, ami niṭe cai nai!/= (I did not want to take the chocolate, it fell automatically from the cupboard.)

• Child Sunny-

When I went to visit Sunny at his house, I saw some pencil marks on the wall. I asked him-

M:/egulo ke ḍag ḍilo?/= (Who drew these?)

C:/ami ki ɟani? oi ɟe o mone hɔy./= (How am I supposed to know? Probably she did it).

Sunny showed his sister sitting in the other room with uncertainty. But his mother said he did that. Sometimes when he watches TV for a long time and mother scolds him, he says-

C:/amar ki ḍoʃ, babai ṭo bollo boʃe boʃe ḍækʰo!/= (It's not my fault, father asked me to watch TV). At that time his father was not even at home. When the new maid came, Sunny started blaming her for everything.

• Child Anna-

Anna was standing on a stool and playing with her brother. Suddenly she fell off the stool-

C: /baiya, ṭomar ɟonno poye gelam, ṭumi ṭakalei poye ɟai. ɟao ṭumi./= (Brother I fell only because of you. Whenever you look at me I fell down, please leave.)

B: /ami ki korlam?/= (What did I do?)

C: /fele ɖi̪la./= (You made me fall).

Mother asked her one day-

M:/amar ai pæd ta ɖ̪^{h}orlo ke?/= (Who touched my I pad?)

C:/b^{h}aiya./= (Brother.)

M:/b^{h}aiya ʈ̪o baʃay nai./= (He is not at home.)

C:/dogi korec^{h}e ʈ̪ahole./= (The dog might have done it).

Mother saw mark of dried rice on Ipad. She asked Anna-

M:/ai pæd e egulo ki?/= (What are these on my I pad screen?)

C:/b^{h}at./= (Rice.)

M:/ke lagiyec^{h}e?/= (Who did this?)

C:/mone hoy ai pæd er i ɖ̪ag./= (I think it is I pad's original marks.)

The most interesting thing about the children's blame shifting process is that, they blame not only on human beings, but also on inanimate objects, circumstances or even animals. Like-

-Anna's mother asked her 'how is her father like?' She said-/bæd/= (Bad). Father heard it from the other room and said-

F:/ki bolec^{h}o? ami pɔca?/= (What did you say? I am bad?)

C:/ami bolinai ʈ̪o./= (I didn't say that.)

M:/ke bolec^{h}e ʈahole?/= (Then who did?)

C:/muzik bolec^{h}e./= (The music said). A song was playing at that moment in the TV.

-Her mother found one of her earrings left open in the jewel box, she said-

M:/kaner ɖulta ke k^{h}ullo?/= (Who opened my ear ring?)

C:/dim lait ɟalaʈe giye k^{h}ule gæc^{h}e./= (I was switching on the dim light and it opened!)

or

C:/dogi niye gæc^{h}e na/= (The dog took it.) etc.

• Child Simmi-

Among all the participating children, Simmi shifts blame more and frequently. According to her mother, she has become naughty and mischievous she keeps doing something wrong every day; and then she puts her blames on others without any hesitation.

C:/ami ki pɔɖɖay haʈ muʂte gelam! ami ɟɔk^{h}on ɟaccilam ʈɔkon baʈaʃe pɔɖɖa ure haʈe lege gelo!/= (I didn't wipe my hand on the curtain on purpose, when I was going to wipe my hand, the curtain dropped on my hand by air!)

Ikra also shifts blame on her brother or on the maid. One day she tried to open a muffin pack; she pulled it so hard the muffin jumped out of the packet and dropped on the floor. Her father said-

F:/ʈomar ʃɔbʃɔmoy e rokom i hɔy./= (It always happens to you.)

C:/ami kisui kori nai papa. paket ta b^{h}alo silo na!/= (I did not do anything, the packet was not good!)

One thing about child blaming process is that children who have siblings blame more on that brother or sister. The only child blames on parents, maids or on the surrounding environment. In child psychology blaming is a negative issue if it is continued for a longer period or if it reflects behavioral problem of a child. But on the basis of the above mentioned data, we can say that for a normal grown child blaming is a natural part in language development unless it becomes habitual. Examples of blaming inanimate objects or animals given in this paper are rather funny than being a developmental issue. Some parents take their child's habit of blaming others so seriously that they take the side of the child to save him or to prove him right; as a result the child makes his habit of putting blame on others. Usually blaming habit vanishes over time if properly handled and the child is taught what are right and what not. Blaming others by the participant children of this research has not turned to be alarming as they were all too young to seriously blame others and parents, especially the mothers tried to handle the issue very sensitively and carefully.

(b) Semantic negotiation or language used for emotional manipulation: Basically, child language manipulation is a phenomenon of developmental psychology. A child can be manipulative in cases and that can be analyzed in two ways, (a) regular basis and (b) some times. It is a part of child development that ensures the process of-

- developing hypothetical thinking
- critical and rational thinking
- empathy and
- impulse control.

Real manipulation is a form of 'black mailing' and it requires sophisticated brain development which does not build up in a child at a very early stage. Thus, young children's

manipulation is actually tantrums which are expressed only when they become incapable of controlling their emotions. Semantically these tantrums are expressed by a child in several ways, like-

- to get priority
- to cover up their misdeeds
- to fulfill the demands
- to live up to their expectations
- to be superior over siblings etc.

These features differ from child to child. Child tantrums or child semantic manipulations are basically ways to negotiate with their parents or family members to fulfill their needs; I have decided to discuss this category as 'semantic negotiations'. Children can start negotiating using language as soon as they enter 2 years of age. According to clinical psychologist Dr. Susan Rutherford, very young children can see the power they can have over their parents and it is mostly an issue of patterns. For instance, if a 2-year-old child cries at night and his parents always take him out of bed, he will actually train himself to wake up to get the comfort; this is a manipulative behaviour. These are non- verbal use of child manipulation.

Children learn how to get certain responses from their parents from a very young age, some of them understand this dynamic quickly. When they grow up, the range of language use develops and they use diverse techniques of manipulating others to get what they want.

Some examples of children using language as a medium of negotiation with parents or others are as follow-

• Child Ikra:

When Ikra wanted to seek more attention, she changed her vocal tone and called her mother or grandmother more softly by lengthening the vowels (usually). She did this only when she wanted something.

One day I took chocolate milk for Ikra, but her mother did not allow her to drink it then. When Ikra failed to convince her mother to permit her to have the milk, she used a different way to work out things. She held the packet tightly, and started licking the packet from outside without opening the juice. Her mother felt sorry for her and gave her homemade orange juice right then. If Ikra does not get what she wants easily, she cries out loudly or tries to threaten (kind of) the person who is not allowing her to get what she wanted. Like-

C:/ami tivir rimot fele ḍei? ḍibo?/= (Should I drop the TV remote?)

C:/amar noṭun jama cire felbo?/= (Should I tear my new dress?)

C:/oke, ṭahole noṭun jama ene ḍibe ṭumi?/= (Ok, then you have to bring a new dress for me) etc.

When Ikra was a year younger, she used to wait for her father to come from the other room to pick her up if she fell down. Now she gets up on her own, but waits eagerly for her father to return from office so that she could complain to him about the incident.

C:/papa ṭumi silena ṭai mɔm amake bɔka ḍiyesilo./ (You were not home, that's why mom scold me.)

C:/papa ṭumi ɔfise sile, ami pore gelam, mɔm amake ṭullo na!/= (Papa, you were not at home, I fell down and mother did not pick me up). Her mother said that, she makes an artificial sad face or rounded lips while complaining to her father. Ikra tries to balance both side to get favour. Like, if anybody tells her that you are only 3 years old, you cannot do this, she says-

C:/amar for hɔbe ami big garl./= (I will be 4 soon, I am a big girl)

or if she is asked to do something-

C:/ami kɔṭo soto amake eigula korṭe bɔlo kæno!/= (I am so small,why do you ask me to do this!)

• Child Anna-

The child knows how to make her brother or others work to fulfill her needs by calling them differently with a different tone-

C: /piz, piz, bʰaiya, bʰaiyu./= (Please brother please.)

C: /baba, bebu, mammua./= (Retorts the pronunciation of kinship terms.)

C: /ami soto na!/= (I am just a kid!)

C: /bonṭake ḍibe na!/= (Won't you give your sister!)

C: /ami beibi na!/= (I am only a baby!)

-Anna even tries to threaten (kind of) others to get what she wants-

C: /baba, ṭomar ai fonta ḍao ṭo./= (Father, give me your phone.)

F:/na, eta baccaḍer niṭe hɔyna./= (No. Children should not touch phone.)

C: /ḍao na piz./= (Please give.)

F:/na./= (No.)

C:/ṭomake bʰau eʃe ni ɟabe./= (Ghost will come and take you.)

C:/bilal aʃo baba ke ni ɟao./= (Hey cat, come and take my father.)

C:/ei bæk dɔg baba ke kʰe felo./= (Hey black dog, eat my father.)

C:/ṭomar haṭ kamme ḍibo./= (I will bite your hand.)

C:/ḍiccʰona kæno./= (Why are you not giving?)

C:/bollam na bʰau aʃbe./= (I am telling you, the ghost will surely come.)

-Anna was having chips. When K tried to take one, she didn't allow. After a while when she couldn't finish eating, she pushed the packet to her brother and said-

C:/ei ɟe bʰaiya, ami na kʰeye ʃob ṭomake ḍiye ḍilam./= (Look, I did not even eat and gave you all.)

(She also tries to make a negative situation positive.)

-When Anna feels lonely she runs to her mother and says-

C:/mamoni ami ṭomake balobaʃi/= (Mother, I love you; only to get attention from her mother.)

-Anna also expresses what she wants indirectly. Like, when they were sleeping at night, her father turned to her brother and hugged him. Anna was facing his back and could not see his face. Suddenly she said-

C:/baba, t̪umi na bolo ɟe ami t̪omar ammu hoi?/= (Father you always say that I am your mother!). Anna's father understood her gesture, quickly turned back and hugged her. Besides, she tries to convince her father if he scolds her for any misdeeds.

C: /lab iu na baba, t̪ahole boka d̪io na, ok?/= (I love you, so please don't scold me.)

Sometimes if we ask her to do something and she doesn't like, she would say-

C:/paye bæt̪ʰa/= (Leg pain.)

C:/pete bæt̪ʰa/= (Stomach ache.)

C:/mukʰe bætʰa/= (Mouth ache.)

C:/d̪aṭe bæt̪ʰa/= (Tooth ache.) etc.

-Anna took admission to school on 17th June 2015. She doesn't like to go to school. There is a boundary line drawn on the road after entering the school gate, from where children have to go on their own. No guardians are allowed from there. At that point Anna stops and says-

C:/ami kæno ɟæno ar haṭt̪e parcʰina./= (I don't know why I am unable to walk further).

-When Anna stays alone with her father, she says her mother is not that good and does vice versa when she is alone with her mother.

C:/mamoni ami ʃud̪ʰu t̪omar, kint̪u t̪umi baba ke e kɔt̪ʰata abar bole d̪io na./ = (Mother I am only yours but please don't tell this to baba) Or

C:/ei ʃɔb pɔca ma allah kæno d̪iyecʰe?/= (Why did Allah give me such mother?)

C:/amake keu bʰalobaʃe na, ami kɔt̪t̪o cʰoto./= (I am so small but still, nobody loves me).

Anna is now almost 6 years old. But some of her previous language use and semantic development are still the same, but in a more developed and well structured way.

• Child Simmi:

C: /t̪umi ɟodi amake na nao ami porbo na./= (If you do not take me with you, I am not going to study.)

C: /amar pɔcʰond̪er dres na d̪ile ɟabo na./= (I am not going if you do not give me my favourite dress.)

C: /age choklet d̪ao t̪ahole bras korbo nahole na./= (First you have to give me chocolate or else I will not brush my teeth.)

C: /amake sappaiz ta agei d̪it̪e hɔbe nahole porikkhar pɔra porbo na./= (You have to give me the surprise first, or else I will not study for my exam.)

C:/amake ʃobʃomoy i t̪o bɔlo ɟe ami t̪omad̪er ma hoi, kokhono t̪o d̪ekhina gift d̪it e!/= (You always tell me that I am your mother, but you never give me any gift!)

• Child Sunny-

Sunny has a bad habit of making things work by crying. He makes his family members do or bring what he wants by crying in front of them for a long time; it does not matter if his way of asking or what he is demanding is correct or not.

Sunny was jumping on the sofa. Whenever he was taking a break from jumping, he called K to get close to him and feed him water. He didn't use his own hand for a single time.

If K did not want to feed him, Sunny started shouting. Later, Sunny asked K to help him with his toys-

C:/bʰaiya aʃo, amar ʃaṭʰe ber korṭe aʃo./= (Brother please come and help me to take out the toys from the shelf). K went there and started to help him. Then Sunny stopped working and started instructing K to arrange his toys in a long line on the floor. When K was a little bit slow, Sunny shouted-

C:/korso na kæno bolsi ɟe!/= (I am asking you and why are you not doing it?)

M:/ebʰabe kɔṭʰa bɔlo kæno?/= (Why are you talking like this?)

Sunny quickly laughed and managed the situation. He said-

C:/mɔɟa korsilam./= (I was joking.)

It was his presence of mind. Actually, he became angry. His mother said, when he feels very happy, he calls his parents /mammaiya/ and /pappaiya/.

According to Sunny's mother, among all the members of the family Sunny expresses love and care more to his mother. Whenever she dresses up to go out, Sunny praises her a lot. He says-

C:/ma aɟke ṭomake beʃi sunḍor lagse./= (Mother you are looking very beautiful today.)

If his father anytime opposes his mother's opinion and says that she is not right or she is not saying the right thing, Sunny takes her side. But he runs to his father and pampers him when he takes Sunny for an outing.

On the basis of the above data, 'Semantic Negotiation' or 'Child Language Manipulation' can be featured as follows-

-crying

-shouting

-giving threats (their own way)

-arguing

-being emotional

-pampering

-choosing any possible mean to work their way out.

I have observed children using language for negotiation and serving their purposes. They try to manipulate to get their favourite food, watch TV, going out, buying anything, making others work for them or anything that needs to go to their favour. Emotionally blackmailing becomes more constructive and well controlled when the children turned 5 years (or above). Previous manipulative use of language was mostly imitation and in some cases previous learning from the adults. But at year 5, children's semantic negotiation turned to be contextually meaningful and pragmatically proper (almost).

Thus, it can be said as conclusion that, emotional use of language is a natural phenomenon in child language development. Parents should not be worried about that until it becomes an issue and everyday concern. The diverse characteristics of child language manipulation make it an amazing issue to explore further.

(c) Own word generation: Sometimes we hear children using some words that are not applied in their mother tongue or any other language they are in touch with. Children make these words on their own and they use few ways to make the words, like-

-by changing already established words

-making it out of no where

-as a result of misheard any original word.

Moreover, Children keep using these new words if-

-they get approval of using it,

-if people laugh or enjoy hearing the children using these words for the first time,

-if they cannot remember the original word they have heard before and

-if the original word seems too hard for them to pronounce.

For example, there are few words in Anna's everyday language use, which she made by herself when she forgot the actual word- /balluta/and /galalu/are two of them. She says this when she gets angry. Anna says these in such a manner that they resemble adults' 'calling names'.

Anna uses the word/badu/and every time says, /badu mane bæd/= ('badu' means 'Bad). Like- /badu b^haiya/= (Bad brother).

Ikra's mother said she uses the word 'Norar Coaster' (Nora's coaster) instead of 'Roller coaster'. She has a friend Nora, so Ikra thought this might have come from her friend's name.

Fuko refers to 'breast milk' as 'Mimi'. He loves 'mimi' (a type of Bangladeshi chocolate), so he uses this word to indicate to his mother's milk when he is hungry.

Mro says 'buku' (from the word 'buk', meaning chest in Bengali). He tries to say that he wants to sleep on his mother's chest now.

I have heard my nephew (he is now 17 years old) making a complete meaningless (literally) English sentence when he was around 4 years old. If anybody asked him anything in English which he did not get, he would say-

-/ai du feis no deis/ or /hao ar iu? sabe miu/. These sentences had no meaning to us, but he meant something with these and he frequently used these two lines (in the same manner) every time. Moreover, children are seen to be using lyric of songs in their own way when they do not get the original one; like-

/d̪ua< d̪ola/, /hɔtaʃ< hɔt^{h}a̪t/, /moa<morа/etc.

The ability of children using and making new words is a positive sign of proper cognitive development leading them to think and map semantic meanings as well. Children should be corrected as they need to know the original words of any language, but they should be praised as well for generating new words too. It develops their vocabularies and their speech become flawless too.

In this chapter I categorized the collected observed data into several categories and sub- categories. Possible examples are added to all of them that helped to get an idea of the diverse nature of child meaning acquisition process during their first language acquisition period. In the next chapter the above data will fall into places by analyzing, describing and discussing them. They will at the same time lead to answering the research questions as well.

CHAPTER 5

DISCUSSION

In this chapter, I analyze the findings of my research and describe their implications for the child meaning acquisition process and other issues relevant to the development of a child's first language. I define how this study used and extended the usage based approach to conducting critical research projects in semantic contexts. In addition, I am presenting my self-reflexive perspective on how this project has progressed and evolved. Finally, this chapter ends with a review of the limitations and future prospects of this study.

1. Revisiting the research questions:

1. What is the role of surrounding environmental input on Children's meaning acquisition?
2. How does categorization influence children's meaning acquisition?
3. What is the relation between semantic acquisition and lexical learning in first language acquisition?

By investigating the above research questions I am trying to provide a detailed description of the nature of the Bengali children's meaning acquisition process. Semantic representations of their language will help to assume how they map form-meaning. Inquiry into the ways of language categorization to extract meanings will also be helpful to identify the stage-wise language development. Moreover, I believe analyzing another important issue like 'the role of lexical learning' will add up to the field of child language development and also to the already published knowledge.

Every healthy human child succeeds in learning the language. As a result, child language acquisition process is typically taken for granted; many people think of the

language learning process as one of the basic instincts of breathing or blinking. Yet learning a language is one of the most nuanced abilities a human being can ever master. This acquisition process includes many multifarious factors of a language like- phonology, morphology, semantics and syntax.

The purpose of this study is to investigate the meaning acquisition process as one of the vital areas of a child's overall language development. It intends to explore the regularities of child's meaning making process (special focus on Bengali children), which is a combination of general evolutionary progressions, cognition, social routes and psychological factors together (MacWhinney, 2005). Accordingly, successive meaning acquisition requires early emotive and expressive language work as pre-requisites. Like-

(a) Receptive language: understanding or comprehending a language.

(b)Attention and concentration: to perform an activity without interruption and to hold a sustained effort long enough to be carried out.

(c) Pre-language skills: means of communication without the use of words. It includes gestures, facial expressions, imitation, joint attention and eye contact.

-Play skills: involvement in self motivated activities that are usually related to pleasure, enjoyment. These activities may or may not be object oriented.

- Pragmatics: use of language within social situations.

- Motivation: desire to communicate with others.

- Fine motor skills: in order to develop alternative forms of expressive language, such as signing (if verbal language does not develop).

A few of these skills (like comprehension) develop in children from the pre- linguistic stage. But the use of gestures, facial expressions along with utterances, joint attention or even early word combinations start usually at around 18 months (sometimes earlier or over). So, I have focused on analyzing data that will explain the meaning acquisition process with all of its defining features.

5.2 The Usage Based Theory of language acquisition

The theoretical perspective of this research is the 'usage based theory of language acquisition', proposed by Michael Tomasello (2003). As a basis for the analysis of the collected data, the key features of this theory will be presented briefly in the following segments.

According to Tomasello, children acquire language with the help of two sets of cognitive skills-

(a) Intention –reading: it helps the children discern the linguistic conventions of the adult speakers. These conventions are learnt culturally. Intention reading includes one of the vital pre-requisites of meaning acquisition, which is 'joint attention'.

(b) Pattern- finding: it helps children to create abstract linguistic schemas or constructions beyond the individual utterances produced around them; like- categorization, analogy or distributional analysis.

Usage based approach views 'communicative function' of a language as the most important factor of language acquisition, because the process of communication starts in human infants at a very early stage, even before they can produce language (Tomasello, 2008). These communicative acts are not only the results of their understandings about the world, but also about understandings they share with their potential communicative partners.

Moreover, importance of utterances in early linguistic communication as a medium to express a complete communicative function is emphasized in this theory. An expression is a pre-linguistic communicative act that is used to direct the recipient's attention to something of a reference and it also conveys a communicative motive. They are all done through some form of emotional expression through face and voice. By comprehending an utterance and determining the functional roles of words in utterances help children learn words and their contexts indirectly. Gradually children start mapping a single word onto a single object or action or even to a concept. In this way children learn most of the concrete words and actions other than noun and verb. Around at the age of 18 months (or above) children start combining words. Through the use of word combination, children spilt the experiential scene into several symbolizable units. The pre-requisite for this stage is the successive utterance of a single word. At this age children's multi word production has a more structured pattern.

The fundamental claim of the communication based or usage based theory is that both meaning and structure come from language use rather than learning word meanings and grammatical forms individually. Child language acquisition should be analyzed by observing and understanding children's comprehension and production of all meaningful utterances as children hear individual utterance first and then recreate the abstract construction of any language (Clark & Hecht, 2003).

The above mentioned features are very much involved in my data; when I started analyzing them, I found that meaning is actually linguistically coded. So the study of meaning acquisition involves analyzing how children link up both of their own and others cognitive concepts and ideas with the whole meaningful utterances. In this sense, the study of linguistic semantics and cognitive conceptualizations are interactive.

5.3 Pre-requisites of expressive language

Unlike the acquisition of syntax or phonology, the acquisition of the semantic component of language persists during a person's lifespan. At an early age the child utters sounds expressive of emotion and later he utters words expressive of emotions (Hurford, 2008). According to them, there is a certain time when the child starts acquiring adult's expressive language which is different from his early cries. Though development from the earliest expressive cry to the full use of emotive speech is a continuous and gradual process, every stage of it is potentially different from the others. The child can express its needs, comforts or discomforts through the first cry, but expressive language is very much important for language communication which is a later developmental stage that starts after 'first cry'. The use of words, sentences, gestures and writings to communicate meanings and messages to others, is expressive language. It involves being capable of label things in the world, explaining actions and events, putting words together in sentences, using grammar (as much as possible correctly), telling storied and answering questions as well. Expressive language is very much needed because it allows children to communicate their desires, emotions, ideas, improve their use of language and ultimately, involve children in effective interactions with others.

5.4 Research findings

I have seen that children's language development follows some predictable sequences. The reviewed literatures agree on this issue too. All the children started with vocal cry and after passing few similar and related pre-linguistic stages (cooing, coughing etc.) they reach the 'babbling' stage. Babbling started from between 6 to 9 months of age. Their babbling consisted of repeating the same syllable like- '[bababa]' or '[gagaga]' or

'[d̪ad̪ad̪a]'. After a couple of months (around at 12 months), these babblings took some common forms and followed same sequences too. They consisted of a consonant like sound followed by a vowel sound, such as- '[baba]' or '[mama]' or '[d̪ad̪a]'. Almost all the parents think of these as the child's first words. During the interview session when the parents were asked about their child's first words, all of them mentioned these 'canonical' or repeated form of babblings. They are not mistaken as, children's early babbling takes longer and frequent forms with added feature of intonation. They show preferences in using certain sounds more. Moreover, children rise and lower their babbling intonations in a manner that it seems like they are actually calling their parents or asking for something. Children keep using these babbling sounds along with the attempt to utter more sounds similar to adult words, even after they turn 1.5 years or even 2 years (varies among children). Gradually, with adult interference and motivation children combine many more sounds to form contextually meaningful words.

Research shows that, both babbling and speech has vocalizations and it is the direct precursor to speech (Lee et al., 2018). But all the babbling sounds do not represent the language around them; they narrow down in the use of babbling sounds in words.

Researchers assume that parents need to encourage or reinforce their children to produce the right sounds related to the target language for successive completion of the meaningful word acquisition. According to Boysson et al. babbled sequences become consistent with ambient language, using identical sound patterns, contours of rhythm and intonation (cited in Vihman, 1996). Few more studies have suggested that canonical babbling precedes the development of even a limited vocabulary of spoken word and appears as a result of significant advances in the development of the speech capability (Oller, 2000).

Gradually gestures and other linguistic features assist babblings to take the form of meaningful early words or 'proto words'. For example, the child uses his hand in the form of a call, along with the sound [baba] / (father in Bengali) to ask for something or to go to his lap or uses the sound [tata] / (bye) with 'hand waving' when someone leaves. These certain features of pre-linguistic or early word stage of my study are also similar to the longitudinal study of Carter, who observed eight types of pre-linguistic schemas used in his child's early vocalization stage too (cited in Clark, 2003).

It is worth mentioning that 'holophrases' or single words used to express complete, meaningful thoughts are also production of early vocalizations and canonical babblings. Rowe and Levine note that some holophrases are utterances expressing the meaning of more than one word, but are perceived by the children as one word (Rowe & Levine, 2016). For example- '[eḍike aʃo]' (come here), '[ota ḍao]' (mother give it to me), '[oi ɟe gari]' (there is the car)- all of these expressions are seen to be used by a Bengali child only through the single word [mama], but other linguistic features accompany these productions to make it significantly meaningful.

Observations of these early language productions or perhaps precursors to first meaningful vocalizations are very much essential in studying children's semantic acquisition process and they came to me quite naturally while observing the children for data collection. Moreover, the theory suggests that, structure and meaning come through use; and after first cries, cooing or vegetative sound stage, 'babblings' followed by 'holophrases' are children's basic language production to express meaning. And they are common and natural for all children without having any major difficulties. The next stage of communication is the 'word combination' stage where children split the experiential scene into several symbolizable

units. According to Tomasello, pre-requisite for this word combination stage are successive single word utterances.

After this single unit utterance stage, the next important stage towards meaning acquisition is the multi-unit utterance or word combination stage. By the end of the previous stage, children started acquiring individual words (both naming and others). According to Aitchison, children's 'mental lexicon' is continually expanding with hundreds of words and these words are continually accessible. Children must learn the meaning of these words for advancement to the next stage of meaning formation, which is the word combination stage, also known as the early sentence or proto-sentence stage (Aitchison, 2003). According to the usage based theory, children start with single unit utterances with intonation contour to express communicative motive, but soon begin to construct multi- unit utterances (Tomasello, 2003). For example, /koi?/ (where?)- the child looks for his mother and expresses it only through the use of this single word. Until he becomes capable of combining the next proper word to join next to it, he uses 'intonation' to make the word sound like a question. Soon he constructs multi- word utterances to complete his communicative motive, like- /mamma koi?/ (where is mother?)

5.5 Meaning acquisition as form constructions

When I was analyzing the data, I have seen that children's earliest multi word utterances or word combinations consisted of the same things (almost) that they have corresponded to in the 'holophrase' or 'pre-linguistic' stage; later around (after 2 years) they become capable of linking up other's actions, object properties and reappearance, locations of people and similar features like these. For example, identifying something or signifying anything they know already.

Like-/miaw/('cat') → /ækta miaw/= ('one cat')→ /oi ɟe ækta meaw/ or

/ækta ʃaḍa meaw/= ('There is a cat' or 'a white cat')→

/oi ɟe ækta ʃaḍa meaw wale boʃe ase./= ('look a white cat is sitting on the wall') etc.

Matthews et al. (2005) also gave evidence of such data in his research also. According to them such utterances take some common forms and these forms could be classified systematically.

A brief presentation of the classification of abstract constructions of children's utterances by the researchers is presented below with necessary examples taken from the data

collected in this research:

-statements (declaratives) =/oi ɟe ɑekta gari!/= (There is a car!)

-requests (imperatives) =/oita amake ḍao/=(Give it to me.)

-questions=/muggi ta koṭay gælo?/ = (Where did the chicken go?)

-performatives=/bai or hælo/= (Bye/ Hello.)

-negation constructions=/ami ḍibo na/= (I will not give.)

-complex constructions=/amio ɟeṭe cai!/= (I also want to go.) or

/oitai ṭo amar kukur ta./= (That is my dog).

Children construct these by observing the adults' language use and related actions mainly. They take input on a continuous basis to cope with their current situations (which might be expected or suddenly created). Data of earliest multi-unit utterances can be

classified and analyzed in the following four types trailing Tomasello's work (Matthews et al., 2005).

(a) Word-combination

(b) Pivot schemas

(c) Item based constructions

(d) Abstract Constructions

Research findings relevant to these four classes will be discussed in the following segments:

(a) Word combinations: Around at the beginning of 18 months, many children start combining two words or holophrases in situations where both are relevant (Tomasello, 2003). Almost all of the children of this research started using word combinations when they turned one and a half years (or a few months later); like- /gari bum bum/=(to describe the noise of the car), /ɖɔgi nai/=(to express the absence of the dog) etc.

I also observed that, the children's first word combinations are like combining two ideas and children have to know words with equivalent status for the combination. For example- /baba ɟuṭa/= (father's shoes) or /mamma kol/= (take me to lap) etc. Gradually verbs start to include in their language, like-/ɖuɖu ɖao/= (give milk), /bebi ɟampa/ = (the baby is jumping). The inclusion of verbs is important in the sense that children begin to know the function of word classes and start comprehending language systematically. One interesting fact about this level is that children seem to set rules of joining words on their own, like- /dim na/=(I don't want egg), /baba tata/=(father went out), /aro mam/=(I want more milk) etc.

Sometimes children use 'thank you', 'good night' and 'bye bye' in their everyday speech. According to Lowry, parents may think of these as evidences of word combination, but these expressions are actually memorized as word 'chunk' of language. Children do not become capable of combining either of these words with other words to form new combinations like, 'Thank you mother' or 'starry night' (Earl & Lowry, 2015). For the participant Bengali children of this research- these word combinations are memorized 'chunk' of the words of the English language. Generally, children are not taught the Bengali forms of these words (with quite a few exceptions) from their early childhood, they learn the Bengali version of these expressions 'chunks' later from school or from contextual conversations at home (mostly).

One of the major characters of the usage based approach is that word combinations divide the experiential scene into several symbolizable units (Tomasello, 2003). Holophrases do not create meaning in this way as they are completely concrete in the sense that they consist only of concrete parts of the language, not of abstract categories (noun, verb).

(b) Pivot schemas: Within a few months of producing the first multi unit utterances, children begin to show visible progress in producing more complex utterances with systematic patterns. They are often organized as specific words and show functional asymmetry between the involved components. One word seems like structuring the utterance by determining the speech act function as a whole, and the other one occupies a variable slot. Such schemas are described as pivot schemas. These structures take place independently of each other and are attached to lexical items (Tomasello, 2003).

Pivot words actually work as links between 'holophrastic' and 'multi- unit utterance' stage. I have seen that Bengali spoken children do not follow any specific word order or

common structure while using the pivot words. Children use such schema to mean something specific before they actually master rules for them. Thus, using pivot words is like applying child's own rules to express something specifically. For instance-

-The child Ikra used the number 'two' to refer to any quantity-/d̪uita kap/= (two cups), /d̪uita d̪ud̪u/= (two milks etc.) or

-Anna used to say- /dim na/= (not egg), /ɟʰal na/= (not spicy) etc.

They want the audience to focus only on the words that express their expected meaning. In the above cases, 'milk', 'cup', 'egg' or 'spicy' are not the words that express the main meaning, these are the 'open' words. The number 'two' or 'no' are the pivotal words here expressing intended meaning to the listener. Pivotal words can take the form of a complete sentence individually (mostly in the form of an answer to any question) or these words can be used in a sentence too. Like-

C: /ʃɔbgula nak bæʈʰa/ (pain in 'all' the nose) or /ʃɔbgula amar/ (all are mine) etc.

In 1971, Slobin found through his research that children approximately of the same age (18 -30 months in general) in different languages expressed similar kinds of meanings with the use of the so called 'pivot schemas'.

I think the use of such schemas can be seen as earliest effort to code the functional categories of the language when the children's utterances express only one function, one meaning at a time. Through the development of structural use of language (grammar), they manage to express several functions and meanings simultaneously.

(c) Item based constructions: Structuring constructions are another vital way in language development, in which children map forms with particular meanings (Goldberg,

1998). Like words, constructions are symbolic entities used to map particular meaning or function to particular forms. For example, any imperative sentence can be seen as a complex linguistic sign, in which particular patterns are constructed to perform an illocutionary force. Like-

/cup koro!/=(keep quiet)

/ɖɔrɟa kʰɔlo!/=(open the door) etc.

On the basis of my data I can say, item based constructions as a medium of semantic mapping start at a very early stage as the form of isolated word production. It is followed by a multi- word expression chunks. Theoretically, these early utterances or 'holophrases' are related to particular communicative situations accomplishing specific communicative goals (Tomasello, 2003).

Children produce these item based constructions as a compilation of smaller unit or they can produce content questions too. These questions can be featured with intonation contour also. In the data analysis chapter I have coded few data under the titles- 'form-meaning mapping', 'form- meaning mapping error' and 'asking questions'. Children's semantic mapping is actually the result of structuring item- based constructions. A successful accomplishment of this process leads to acquiring the use of 'pivot schemas' and making early attempts of asking questions.

(d) Abstract constructions: Abstract constructions in language development play the vital role in pairing complex forms with complex semantic or pragmatic functions. But children do not experience constructions; initially they create utterances as concrete pieces of language, in several different shapes and sizes, and then generalize them to develop more

abstract linguistic constructions (Tomasello, 2003). Such constructions are central to theoretical buildup and it enables children to generate new utterances too.

These abstract or linguistic constructions are prototypically language units consisting of several linguistic elements used in a relatively cohesive communicative process together. These linguistic elements perform sub-functions as well. Children start with learning words followed by combinatory rules. But the question is how do the children do that? I have observed that this process of language construction aiming to make meaning for successful communication comes as a gradual process but without showing any visible segmentation. They hear and then try to understand entire adult utterances, instantiating different kinds of constructions used for different communicative purposes. Although children begin by learning individual words, they are often featured with traditional international patterns that signify requests, comments, questions etc. Later, they match up to adults' use of more complex constructions as a form of effective speech act corresponding to whole language constructions.

Moreover, if we explain language constructions from a structural perspective, we can refer to Ferdinand de Saussure, the pioneer of structuralism. According to him, language is an abstract system of signs (grammatical, syntactic, semantic, phonetic or lexical) and they make the basis of all speaking, or simply 'language in use'. They are interrelated and interconnected expressing the same idea through different means of language. For example-

C:/piŋ kalar ḍao./=(Give me 'pink', means I do not want any other colour)

C:/amar pocʰonḍo na./=(I do not like, means 'I dislike')

If grammar is the main abstract construction of a language, it is worth to mention that- grammatical elements are unities of meaning and form, content and expression (Sag et

al. 2012). A grammar reflects the paradigmatic (meaning of words) and syntagmatic (syntactic meaning) of a language. Categories analyzed in this research such as 'using linguistic features' (intonations, use of verb- forms etc.) are all part of abstract constructions of a language. Usually children are seen to be over generalizing the language at the beginning of meaning mapping, this is also a part of linguistic construction aiming to acquire the actual content- expression relationship of a language.

These points are discussed here with relevant examples that are collected as data during the research to present the systematic process of child language acquisition; these processes resulted out in meaning acquisition or semantic mapping of the target language. The theoretical basis of my research which is the 'usage based approach' also supports the above steps as the foundation for child language acquisition. Thus we can conclude that early ontogeny of child language focuses on- (a) the language children hear, (b) their early holophrases, (c) early word combinations, (d) using pivot schemas, (e) item based constructions and finally (e) focusing on linguistic or abstract constructions used to mark basic syntactic rules to ensure proper semantic representations (Tomasello, 2007).

The above sections cover the whole idea and levels of child semantic mapping or meaning acquisition in general. But on the basis of my collected data and coded categories I want to present the following segments which I think are worth mentioning to know the underlying factors of child meaning acquisition process more clearly and at the same time it will be helpful to answer to the research questions also.

5.6 Cognitive development

Children's ability to understand language becomes more mature and complicated along with their age development. Their brains become mature and their ability to

communicate, comprehend and produce spoken language develops as well. When children acquire a first language, they draw on what they know on the basis of their conceptual knowledge that differentiates and helps to construct definitions for the objects, relationships and events they encounter (Clark, 2004). All of these need well formed brain development.

I have categorized a major portion of my findings under the theme 'cognitive development' because according to the analysis, language acquisition course cannot occur alone as a vacuum process, it needs reasoning, information processing, attention and memory. Cognitive factors and social aspects are closely related to the entire process too. Children are often seen in their everyday communication process imitating or memorizing language chunk for contextual communication like- how to receive a phone call or what to say when someone is leaving the house (etc.). These are all accumulated process of cognition of language development. The child imitates (a part of social cognition) what others say and do, tries to explain or use language logically, overgeneralizes when he is unable to capture the form- meaning mapping scenario, uses his perceptions, expresses feeling- emotions, involves in pretend/ symbolic play or shows, special abilities to recognize numbers, shapes or colours; and all of these processes are enabling the child to acquire the first language and interpret it for successive communication.

Researchers supported that, cognitive pre-requisites for language development is very important. In 1980's cognitive linguists helped to initiate a flood of work connecting language and cognition (Campbell, 1979). Representation of conceptual structures in language is a central concern in cognitive linguistics as they put emphasis on issues like- how aspects of general cognition (such as how the meaning of grammatical construction are created) are important to describe linguistic structures. It all started by Jean Piaget (1954)

when he tried to emphasize the commonalities between language and cognition. Meaning acquisition processes like imitation, perceptual organization or reasoning establishes that cognitive development is not inseparable with language acquisition.

This research is also concerned to find the relationship between cognitive development and surrounding environment of the speaker which is the most influential factor in a child's first language growth. Psychologist Vygotsky (1978) mentioned that child's language reality needs to be adjusted with cognitive organization. He believed that after successful language acquisition children need to depend more on environmental circumstances to develop cognitively.

We need to know that developmental aspects related to cognition are also important to child's physiological growth and it goes parallel to language acquisition, depending more on the environment in which the linguistic operations take place. That is why starting from the very first cognitive theory by Piaget to the recent developmental stances on language acquisition (including the usage based approach), priority has always been given to the role of cognition in language development. Issues like language constructions or schematizations are results of cognitive maturation influencing language acquisition. The presence of this crosses our perception more through the expressive and receptive use of the children's language during the entire period of first language acquisition.

Until now, the research questions have been explained randomly through the process of data analysis and most of the findings are also discussed relating to the reviewed literature and theoretical perspectives. Once again I would attend to the research questions individually and extensively in this chapter. Before that I need to shed light on few more findings of this

research that I think vital in enhancing children's meaning making process. Some of them are universal to all children and some are culture specific as to the Bengali children.

Courses of semantic acquisition are more or less identical to all languages and to every child; for example- early utterances, pretend play, imitation, perceptual organization, form- meaning mapping, asking questions, development of conversational skills etc. Apart from these, the following features need to be highlighted and explained because they are culture specific, thus unusual too. Moreover these features of meaning acquisition demanded little more intense observations than the other features. These features are as follow-

(a) Original word imposed meaning

(b) Own word generation

(c) Use of onomatopoeic and reduplicated words

(d) Semantic negotiation

(e) Blame shifting

(a) Original word imposed meaning: I have seen that most of my participant children use some already established and meaningful words with different meanings. Like, child Anna used /piz/(please) very frequently and it seemed like she knows what it actually means. But when she was asked, she always had different meanings for the word depending on her choice of use-

/piz/= to give (when she is asking for milk),

/piz/= asking to come (when she means 'please come here'), like this she uses-

/ciken/= chocolate (not to mean 'chicken', as chocolate)

/bikale/= right now (when she wants something right at the moment) etc.

Like the above words, she used 'life', 'burp', 'fresh', 'gas' and many other words with meanings that were her own or I can say that the way she wanted to express them.

(b) Own word generation: Besides using an already established word in different senses, children use many self made words too, like-/buku/= /buk/ or 'chest'/mimi/ = 'breast milk', /badu/ = 'bad' and many more words of this kind.

Do they make the words out of nowhere? The answer is 'no'. Children make up these words, but they are logically explainable. Such as- '/buku/' resembles the Bengali word '/buk/' for 'chest' and the word '/badu/' resembles the English word '/bæd/''bad' respectively. Again, '/mimi/' means 'chocolate' in Bengali and the child loved both breast milk and chocolate, so he used the same term to represent both. But the idea and procedure to make new words out of the existing ones are quite amazing. Both cognition and surrounding learning influenced children's personal use of words for communication. Children at that age could not map the meaning with the actual form, which is why they have different versions of the same words in use. Along with age development, they will overcome the incompetent situation and know the actual use of every single word.

(c) Use of onomatopoeic and reduplicated words: Other than the above language uses, children apply reduplicated and onomatopoeic words in their everyday language (after 3 years usually). Such as-

/ɔnek ɔnek/, /gʰoʃe gʰoʃe/, /fiʃfiʃ/, /dʰaʃ kore/, /kɔlkɔl/, /tʰuʃ kore/etc. These words are frequently used in children's everyday utterances. Again, reasons behind using these words lay down in taking input from their surrounding environment. They hear the

elders using such words and sometimes copy perfectly and sometimes with changes. But the influence of linguistic environment is playing a major role here.

Two of the language features used by almost all the participating children are very unique to me. I have seen them using language sometimes for taking personal benefit from the target situation specifically. Before presenting they manipulate with the language or impose kind of self made (seems fake for that moment als0) features on the language form which help them to make their utterances meet their expectations. I have named these features as 'semantic negotiation' or 'language used for emotional manipulation' and 'blame shifting'.

(d) Semantic negotiation: Use of unnecessary intonations, gestures, facial expressions or emotional expressions with the utterances is the signs of manipulative language use. Children even give what we can identify as threats (emotional blackmailing perhaps) to the elders to make them agree with what they want or say. For example-

/t̪umi ɟodi amake na d̪ao ami porbona/ or /age d̪ao nahole ami kʰabo na/= (if you do not give me I will not study or give it to me first or I will not eat). Besides, children praise mother (or say good things about a father) for her dress up or cooked food to cover up their mistake or any slip-up; /mamoni ami t̪omake balobaʃi/= (mother I love you) is the common expression that child Anna produced when she felt left alone or acted naughty. Examples of manipulative language use are given with elaborate explanations in the findings chapter. I have also mentioned that developmental psychologists described both positive and negative aspects of such language use by children. If I keep these aside, I will mark this strategy of meaning making very much innovative for children who are only 3.5 years or above. They should accredit for finding ways of expressing meaning in such novel ways.

(e) Blame shifting: Children are also seen to be using words that actually shift blame or put one's blame of misdeed on someone else. This is a normal phase of language development found in children in all languages as 'ego defense mechanism' (Freud, 2018). Interestingly, I observed that the participating Bengali children shift their blames both on animate and inanimate entities.

M:/amar ai pɔd ke ɖʱorecʰe?/= (who touched my I pod?)

M:/dɔg mone hɔy!/= (the dog perhaps) etc.

The question might arise- how do the children learn to blame others or use language in a manipulative way! According to my observation, children use their memory and reasoning to use previously heard language or observed situations to convey meaning in this way. It does not require direct one to one data input or teaching from the adult's part; children acquire all of the as quickly as possible to create contextual meaning from their linguistic environment.

The first research question is the most important one which is designed to explore how the Bengali speaking children acquire meaning for communication depending mostly on the input they get from their surrounding environment (including linguistic environment). Both in the findings and discussion sections I have presented and analyzed many data collected during the observation sessions proving that starting from the pre-linguistic stage children depend mostly on information they receive from the people around them for communication. Gradually they progress in acquiring meaning in the form of word combination and syntactic level, and during this whole period 'cognitive skills' or 'cognition' co-constructed the link between children and their cultural contexts.

Consequently, even the idea of 'self' in the early years of life relies more on

involvement in a given cultural context and distinctive definitions and behaviors that help to explore diverse developmental outcomes (Allen, 2015).

All data has been collected in the children's natural settings. Whenever the child had to establish any argument or present evidences in his favour, I have seen them using previously gathered knowledge and adjusting them according to the present context also. Even perceptions were also expressed on the basis of existing knowledge that the child received from parents or someone else. For example, the child Fuko once asked her mother after she received a phone call-

C:/baba fon kore cʰilo? amake, d̪ile na kæno?/= (Did father call? Why didn't you let me talk?)

M: /na, baba cʰilona./= (No, it wasn't him.)

C:/amar t̪o mone holo babai cʰilo./= (I think it was him.)

M:/kibʰabe buɟʰle t̪umi!/= (How do you know!)

C:/ami d̪ekʰechʰi e lekʰa utʰeche. e d̪iye babar nam asad̪ hɔy./= (I have seen the alphabet 'A' on the screen. My father's name 'Asad' starts with A.)

The child here used memory and reasoning from the previous knowledge to convey contextual meaning. Usually by 18 months toddlers start to observe and depend on the adults' for information. They start checking the speaker actively to associate an appropriate object with the label. Emotional and linguistic information is being obtained and shared at this period in even in the context of early parent- infant relationship. By two years I have seen the children successfully engage in accomplishing activities joining with their parents, such as- sharing previous experiences or telling stories.

The role of the linguistic environment in learning a language was discussed also by the earliest theories of language acquisition. B.F. Skinner (1957) as we remember was the first theorist to suggest a fully fledged language acquisition theory. He intended to primarily relate human linguistic activity (expressions and responses to the others' utterances) with behavioral inclination. According to him, mastery of language and language learning depend solely on one's verbal behaviors controlled by environmental elements including others' utterances. Children are rewarded or punished for their linguistic productions which gradually converge to appropriate performance for the widest language community. On the other hand, Noam Chomsky argued that language use and production are stimulus dependent and not determined by the history of reinforcement. Language mastery involves a wealth of semantic, pragmatic, and syntactic knowledge. What we say or respond to others is the result of mutual understanding and interaction between our histories, our belief in our current situation, our desire and our knowledge of how our language works (Chomsky, 1959). Children acquire the language only because they hear it spoken around them, and they also do so naturally, easily and without over- instruction also. Chomsky outlined the importance of cognitive and mentalistic conception of the language acquisition process when he claims that children learn a language mostly on their own.

Both of these earlier theories of language acquisition may vary in their theoretical development, but they believed in language acquisition as a result of the innate ability of the child to 'think', the skill that makes human unique and separate him from animals. Both of the theorists focused on the role of environment, influences and reinforcements of the surrounding people in a child's life that enhance his language acquisition process with ease and effortlessness.

Modern theories (after 20th century) also take language acquisition as a complex process which includes- associating words with concepts and knowledge of putting words together for making sentences to express our thoughts for meaningful communication. The human brains have something special that helps children to master a natural language, knowing all the intricate laws that govern linguistic communication and comprehension of their language (Cowie, 2008).

My second research question deals with one of the major processes of meaning making, which is 'categorization'. Categorization is the process of organizing experiences by treating occurrences discriminably that are alike (Gelman & Meyer, 2011). Child categorization starts in early infancy and spans all of development. It changes when the child's knowledge and cognitive skills develop.

Children categorize information as an effective means of storage and retrieval; as a result, they do not have to track down every single item they come across. Moreover, it helps children to infer knowledge beyond past experiences and make predictions in future. Young children's foundation for adaptive action and problem solving begins through early categorization. Children start to differentiate and understand ideas and objects through categorization. How children come to be in command of the different categorizing process have been topics of vigorous debate since Chomsky.

During the research and data analysis process I have seen that children acquire their first language in several steps, and to accomplish each stage they have their own way or processing the language. Usually children go through some basic type (common to all children during first language acquisition period) of categorization, like – perceptual categorization, conceptual categorization, semantic and syntactic categorization and social

categorization. All of these mainly enhance child language categorization process. Perceptual categorization is an automatic part of perceptual processing computing perceptual similarity to one object or person to another; it creates perceptual schema of objects outlook. Conceptual categorization re-describes perceptual information in conceptual forms, particularly on the paths that objects take. This process creates the notion of kinds, such as vehicles, animals, plants, furniture etc. On the other hand, social categorization is the method of classifying individuals into groups on the basis of similar characteristics, whether gender, height, hair colour, occupation or any other traits. Human infants display complex categorization abilities (Bornstein & Arterberry, 2010), like-

(a) Visual preference: differentiating animate and in animate things.

(b) Habituation: capability of recognizing shapes or lines as they are practiced from childhood.

(c) Object examining: identifying objects on the basis of external characteristics like, round/flat, heavy/light etc.

(d) Sequential touching: being able to identify body parts (of animals also) and tell if a person is fat or thin by touching over.

(e) Inductive generalization: knowing the function of things, like key starts a car, drinks cannot be chewed; a switch turns on a fan etc.

Even in the early word combination stage children do not produce the two-word utterances combining words randomly. Rather, they are systematic and logical in the way they combine words to express meaning. R. Brown (1973) noted that children produce utterances by relating one semantic category to another. The four semantic categories are-

agent, object, action and location. The children create meaning and produce early syntactic structures by combining these interactively. If I take data from my research it would be like-

Agent + Action = /beibi ɟampa/=(The baby is jumping).

Object + Action =/ḍuḍu kʰabo/=(I want to have milk).Gradually they start combining three words also, like-

Agent + Object +Action =/ami park ɟabo./=(I want to go to the park).

There are more possible combinations and expansions of two or more word utterances. However, the above examples give some idea of the systematic and logical way in which children categorize utterances with appropriate meanings.

Categorization of children's language is an important field in the study of child language development study and does not restrict itself to any specific level; it is a gradual process that covers most of the essential aspects related to a child's language growth including the meaning making process. It is a vital way to determine the development of memory, how children encode language and overall language growth of any child. Regarding the development of language and cognition, 'child categorization' is at the center of semantic acquisition; this is why it is an area of interest for this research and it also leaves scope for another in-depth study too.

The last research question concerns about the role of lexical learning in semantic acquisition. I take this as a very vital issue to query because I have seen during my work that most of the people think of child language acquisition as learning words or vocabulary acquisition. I reviewed some journals on first language acquisition that discuss mostly how and when the child acquired and started using words; moreover data comprised mostly on

presenting word list. Undoubtedly, lexical learning is one of the essential parts of a child's first language development but not the only one.

Unlike grammar, vocabulary is acquired throughout life, human continue hearing and learning new words and their meanings all through their life. So issues relate to lexical acquisition can be addressed from the first language acquisition angle too. A child's acquisition of words is known as 'lexical development' and acquisition of meaning associated with those words is the main focus of lexical semantics, one of the major areas of semantics. Starting from the early stage of word acquisition (18 months onwards), the numbers of words the child has learned will increase at each point. After adding a new word to their -vocabulary they do not get the full range of meanings immediately. It is a gradual process that goes through (a) acquiring grammatical/ function words, (b) overgeneralizations and finally (c) getting it right. Only word learning is not sufficient in language acquisition, making correct referential links between the words and their meanings are equally essential. A child has to map between form (words) and meaning at a time in his life as both of these are moving targets of language communication.

History proves that many semanticians have paid more attention to the meaning representation at the lexical level in their studies; Jackson's textbook- 'Word and Their Meaning' (2014) presented this approach. Cruise's 'Meaning in Language' (2004) focused on lexical issues relating to semantic acquisition. In this present study, we have seen that children categorize, make schemas and map the words and use them differently to convey meanings. It is actually the core component of semantic acquisition. So we can simply say that lexical learning and semantics are very much interrelated and they work together for successful language acquisition and communication also. Starting from the very beginning of

the acquisition process, lexical learning and semantic acquisition relies on each other and together play a crucial role in a child's overall language development process.

The following chapter will talk about the conclusion, limitations, and future directions of this research.

CHAPTER 6

THE CONCLUSION

A few years ago my journey with the young language learners started. This relationship developed from a casual conversation with a friend about my amusement on how my child is acquiring his first language to a doctoral dissertation and a commitment to a cause. This journey brought with it laughs, tears and a lot of thought. I got the chance to learn about myself as I listened to the participants and came to know them. I also engrossed myself in my work to understand the significance of meaning acquisition in the lives of the young minds and the potentials for acquisition expressed by them. Sometimes I tried to put myself in the same shoes as the participants and I attempted to configure how they are processing meaning out of the surrounding inputs. I know I also went through the same process during my first language acquisition period, but I am not sure if my journey was as enthusiastic as theirs! I decided to throw myself in the field, observe the phenomenon, ask questions, interrogate structures, examine my interpretation, and then go back to the field again. It was an eye opening journey that taught me innovation as well as how to apply presence of mind. I felt myself to be a learner in front of these children who gave great effort to acquire structures in far more powerful ways than we can now imagine as an adult. I observed, listened to them talking and expressing meaning with novelty. I saw the light in their eyes when they became successful in conveying what they wanted to mean and the persistence to overcome circumstances. I learned to be proud of the ability of human beings to acquire, experience and making such a process of meaning acquisition easy and almost flawless mostly on self efforts. I looked at the things I wondered about in my life and contrasted that with what the actual process of language acquisition the children had to go through. I realized

that meanings can never be taught, they have to be acquired through imitation, observation and following the adults' and mostly by using the language. Children figure it out all on their own. This amusing capability is a gift to the humankind from the Almighty.

This project took to its heart a usage-based approach that defined the work's epistemological features. From its commencement, my work sought to stand upon the articulations of language acquisition participants as they made sense of their existence and life experience. In addition, the bond between these children and their family members has been explored in the light of the language constructions narrated by those participants. Through a detailed observation of their language use and co-constructive nature of meaning making endeavor, I tried to present an account of the meaning acquisition process of the Bengali children I chose as my research participants.

At the center of my study is the acknowledgment of the impossibility of representing children from different cultures as a common background to reflect the meaning acquisition process. But I share my co-construction of meanings as brought forward by these Bengali spoken participant children. It is through the interactive, participatory nature of data collection and the intensive data analysis that these meanings emerged from them.
This study employed different methods to provide a complete understanding of the context, settings, structures, and performer involved. I engaged in an auto-ethnography to document my experience with the participating children. Through perceptions, I recounted my observations and experience dealing with the children for a period of 4 years and over. Also, a substantial part of this project draws upon my work where I observed the participating children interact with their family and other members living together and stand in surrounding environmental context. The observation was further complemented by personal

interviews with the caregivers of the children. I visited the homes of all the participants to get a sense of the way they live and the setting they are part of. This ethnographic journey yielded a wealth of data from the field and from the participants.
It informed my understanding of the issue and indicated that the research questions presented in this study were answered.

Integral to the ethnographic work of the researcher is the adherence to an open state of mind ready to absorb data with "the suspension of disbelief" (Charmaz & Mitchell, 2007, p.161). I tried to document my feelings, experiences, and reactions to the fieldwork I was doing in a reflexive journal I kept. I approached the field with an open heart and an open mind, despite a few instances of prejudice that I documented in my journal. I believe by the end of this stage of my journey with these young achievers, I know I have a lot to work on. I see this project developing into white papers to address the meaning acquisition issue. I intend to share what I learned with the academic community in an effort to provide the knowledge produced by the Bengali first language learners. This project adds to the literature on child language development by engaging in participatory qualitative method with the language learners as contributors not as subjects.

6.1 Limitations

This section discusses the limitations in this study in terms of data collection and field work as well as the write-up process. The following are the few limitations I identified in this study: (i) site of research, (ii) Time, timing and participants' involvements (iii) data recording process. These few drawbacks recommended directions that could carry this work further.

6.1.1 Site of research. The purpose of this study is to understand how the children acquire meaning from the feedback they obtain from their environment and the people around them, so participant children were observed primarily in their home. But sometimes I felt the necessity to use few other settings (or change of environment) rather than their houses only to see how do the participant children adjust or act on them. Sometimes I went with a couple of them to shopping malls or playing areas; but that was countable instances and not possible for all of them. Due to parents' restrictions and time and transportation convenience, it was not possible to arrange such appointments very often. I know children act natural and lively in their everyday environment and it is very much necessary for collecting data in observation method, but few different occurrences could have enhanced the extent and quality of the data. Moreover, few houses were so far, that sometimes it took almost an hour or more to reach there, which affected my freshness and energy level a little bit too.

6.1.2 Time, timing and participants' involvements. During my fieldwork, I visited the participating children's homes. Sometimes I had to wait in their living rooms (for most of them) until they showed up. I observed their mother or the maid feeding them afternoon snack or pulling them up from bed to attend me. On such days I had to stay longer as the child took time to become active. Usually child Simmi and Ikra had to be observed in the late afternoon or in the evening; so I returned late at home on those days. But there were no other ways of doing it as children returned from school after 1.30pm and weekends were their family time. This means, I had an opening of around half an hour to approach the children and start spending time and observe them. I had to assure the child indirectly that I am there to have fun and spend some quality time with them. This comes with another set of limitations with the children being ready to leave me as soon as they had guests or favourite

person returned home. This constricted timing sometimes meant quick, shallow encounters with participants. Nevertheless, this study was able to delve deep about language acquisition, especially how they communicated meaning, as both the participants and parents opened up and enriched my data.

6.1.3 Data recording process. I have recorded the data manually by writing them up. During the observations I took short notes or used short hands to input the data on individual copies made for each child, later I wrote them elaborately and transcribed them. Special notes were also taken for behaviours, acts, or language use that I found more appropriate and relevant in explaining their meaning acquisition process. I tried to video record at first and later audio- record (like I did with my interviewees) too, but the children walked, ran all over the house instead of just sitting in one place. It made the continuous recording job almost impossible. Moreover, children showed 'hawthorn effect' during video recordings and disrupted my attention too. Then I recorded only few special events like 'story telling', 'telling rhymes or singing songs' or 'children involved in joint work' without informing them. I wanted to have peaceful and quality time with the young informants without any interruption during our participation period. 'Meaning in use' is not a frequent process that is happening continuously; it is not like recording children's first use of verbs or any other language form. Child meaning is expressed not only through their language; actions, gestures, body languages also help to communicate meaning for them. Thorough audio recording could have been a backup option for data collection, but in this study absence of continuous audio- taping did not affect the actual purpose and objective of this research as I feel unlike other linguistic developments (phonology or morphology), meaning acquisition cannot be explored properly by recording day today use of language traits. It needs keen

observation and analytical ability to understand the gradual developments of any child's meaning making process. Still I recorded special features, some long conversations, rhymes, songs and what I felt useful for further analysis. But over all data collection was smooth and interesting; I enjoyed spending time with the participants too. Though For future researches, an option could be kept open to employ someone for technological assistance.

6.2 Future directions

This work provides an opportunity to build on the shared experiences and narratives of Bengali spoken young children in an attempt to explore their meaning acquisition process. For example, a child becoming happy and jumping with joy to see his working parent home at the end of the day is an untold expression that he missed them all day long. Without genuinely understanding and integrating the child's surrounding environment, these attempts to sort out how meaning is acquired by the young children remain futile and worthless. Family structures and factors like parental interaction with the children, language use, surrounding atmosphere continue to imprint on the language development of any child. A comprehensive support system can provide the necessary environment to the young minds ready to acquire their first language with all its essences. Otherwise, under developed communicative ability will become a natural outcome. With the appropriate surrounding environment and positive reinforcements (sometimes may be negative ones too) help to end up in well structured language development as well as successful meaning expressions. To create a positive surrounding environment, initiative has to be taken from the family members and relatives. Children depend more on the parents and his relatives than anyone else, so they should also think about the child and his successful language growth.This might

be too optimistic, but I believe, efforts taken from the family at the very beginning can create opportunities for the young first language learners to get proper language input.

Another project that surfaced from this study is the possibility of providing a thorough analysis of the pragmatic use of the acquired meaning in everyday life of a child. Though discussion in meaning acquisition also covers issues like language in use too, but linguistically exploring the pragmatic use of child language can be another interest to study. Moreover, in this acquisition develops well after 18 months along with other developments like combining words, working in joint attention and cognitive developments. So a scope is already created here to further study the time period before this when the child depends mostly on non-verbal communications to interact with others; or the time period after that (5 years) when child's meaning acquisition develops and reaches adults' language use level.

When I was doing this research, I found that child language growth is one of the most vital developments in a child's life and how the meaning making process takes place is a significant part of it. In this sense, a study that covers how meaning acquisition takes place is also very important for trying to explore one of the greatest mysteries of humankind, the language development process. Thus, similar studies to investigate this wonderful journey will also be very significant and helpful for researchers' interested in and already working in this area.

6.3 Conclusion

This research indicates that the language production of young children is significantly influenced by, and to, the language they hear spoken around them. They acquire language by imitating and taking direct input from their surrounding language and family environment. The more children are exposed to different types of inputs, the more opportunities they will

have to develop communicative skills. Thus, they are the parents' and family members' duties to ensure a healthy physical and mental environment for their children to have a successful language growth. As language development covers a major area of a child's overall growth, it is very important to give them support to acquire the first language with all its potential advantages. Moreover, areas like meaning acquisition needs appropriate language input from the adult speakers; and for that the family members and surrounding people should take part in the journey of the early language learners, and try to make it as smooth and flawless as possible. If the adults start to converse with the children at the right moment, they can easily convey their thoughts and experiences. So along with the natural course of language development, surrounding environment, people, and proper input can lead the children to successful first language acquisition.

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Appendix

Dissertation Interview Guide

Demographics

- Sex: M F
- Age:
- Number of family members:
- Educational background of parents':
- Parents' profession:
- Caregivers other than parents:
- Attachment with the child for How Long (If no. 7 is present):
- Financial Status:

Language Acquisition Related Questions

- What does child language acquisition mean to you?
- What are the key issues related to a child's language development?
- What do you do to help your child develop the language skill?
- What are the main factors you think should be taken care of ? (eg. People, language environment, way of talking etc.)

  a) Why/how do you consider these to be the main factors?

  b) Do you think related persons to the child could be influential in this regard?
- What changes would you like to see in the way in which you see children receiving language input in general?
- What are your experiences with your child's language acquisition?

Some directed Questions to the mother (or the main caregiver)

- Who takes care of the child all day?
- How much time can you spend with the child?
- When did the child first start talking?
- Did your child use to utter anything before that?
- Did you understand meanings of the child's first utterances?
- Did other family members understand her first word meanings?
- What did she do if she could not use the specific word for her desired thing?
- If the child said something and rest of the people could not get her, how did the child react?
- What and how were your child's first sentences?
- When did the child learn to say longer sentences?
- Does the child use gesture with spoken language?
- When you first talked to the child, did you use 'baby talk'?

Specific Questions on Meaning Acquisition

- Did you know that a big part of child language acquisition is meaning acquisition?
- Do the rest of the family members also do that and feel the importance of getting meanings?
- Do you think the child gets thing right according to her age?
- Did you teach her new words individually or within sentences or speech?
- How do you know if your child understood what you said properly?
- Did you ever check if the child understands conversations, TV shows or other things apart from word-meanings only?

- Can the child make other understand what she wants to communicate now? If yes, then since when did she start it?
    a) Is the contextually right always?
    b) If not, do you make correction right at that moment?
- Can the child express preferences now?
- Does the child show preferences in things like food, dress up or anything other than watching TV?

Questions to Find Out Other Sources of Language Input

- Does your child watch TV, cartoon show?
- Do you allow the child to touch cell phone or tablet?
- Does the child know the functions of the switch operated objects of the house?
- Does the child like to go out?
- Can your child describe what happened after coming from any countries or from any outings?
- How is the description?
- Does your child tell stories?
- Do you read stories to the child?
- Does the child nag to get what she wants or force you to give?
- Does the child emotionally blackmail to get anything?
- Is she curious to know things?
- Is she self dependent?
- How will you evaluate your child's meaning acquisition process?

- How will you categorize your child's language acquisition? (learning from adults, imitating, surrounding learning etc.)?
- Do you have any suggestions or other caregivers to help with the child's language acquisition process?