# Manual on Early Intervention to Infants and Toddlers with Developmental delay - Series-3 Speech, Language, Communication and Social

Authors
Dr. Amar Jyothi Persha
N.C. Srinivas
R.C. Nitnaware





### National Institute for the Mentally Handicapped

(Ministry of Social Justice and Empowerment, Govt. of India)
An ISO 9001:2008 Institution

Manovikasnagar, Secunderabad 500 009. Andhra Pradesh, INDIA

Ph: 040-27751741 Fax: 040-27750198 E-mail: library@nimhindia.org

Website: www.nimhindia.org, www.nimhindia.gov.in

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# Manual on Early Intervention to Infants and Toddlers with Developmental delay

Series - 1: Cognition, Audition and Vision

Series - 2: Gross Motor and Fine Motor

Series - 3: Speech, Language, Communication and Social

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AREAS OF DEVILOPMENT

टी.सी. शिवकुमार <sup>निदेशक</sup> T.C. SIVAKUMAR <sup>Director</sup>

### राष्ट्रीय मानसिक विकलांग संस्थान

(सामाजिक न्याय और अधिकारिता मंत्रालय, भारत सरकार)

# NATIONAL INSTITUTE FOR THE MENTALLY HANDICAPPED

(Ministry of Social Justice and Empowerment, Government of India)

(An ISO 9001: 2008 Institution)



### **FOREWORD**

Prevention of disability is the foremost important agenda for any professional engaged in the area of Disability Rehabilitation. However, there are many reasons wherein the situations go out of the purview of the professionals. In such instances, early intervention is the first and vital step for reducing the intensity and severity of the condition of children at-risk and the children having disabilities. NIMH, since its inception has been giving focused attention to extend services for children falling under the category of early intervention i.e., 0 to 3 years. The experiences from the services provided gave us the thrust to develop two academic programmes - P.G.Diploma in Early Intervention and M.Sc. in Disability Studies (Early Intervention). It is expected that the professionals trained in the above academic courses will be able to extend therapeutic services as well as creation manpower.

Further to the above actions, NIMH has established Early Intervention Cetnres in some districts of the country as a pilot project to gain first hand information to gauge the actual need at grassroot level. In addition to this we have been conducting short term training programmes for various levels of service providers from personnel to professionals. To support all these programmes NIMH prepared and published training materials to augment the efficiency of the trainees. However, the magnitude of the requirement, considering the wide spread population, particularly in the rural areas of India has always been a challenge to meet with. It was felt that there is an acute demand for a suitable curriculum with transdisciplinary approach to enhance the skills of the professionals, therapists and specialists working in the existing network of health, women and child development and disability rehabilitation. The early intervention team of NIMH felt the need for developing training manuals to address this lacunae to reach the unreached, resulting in the completion of a series of `Manuals on Early Intervention to Infants and Toddlers with Developmental Delay' with the following titles:

Series-1: Cognition, Audition and Vision Series-2: Gross Motor and Fine Motor

Series-3: Speech, Language, Communication and Social

These manuals will be a ready reference source for professionals in the field. With appropriate training programs in early intervention and instructions on usage of the manual, many more personnel will be able to provide services enhancing the human resources in the field.

I, sincerely, appreciate the efforts put in by the research team headed by Dr. Amar Jyothi Persha who was heading the Department of Medical Sciences at NIMH to produce this "Service Manual" which is an outstanding contribution in the field of early intervention.

This manual, already with other publications of NIMH on Early Intervention: RAPID (Reaching and Programming for Identification of Disabilities), Low cost stimulation material, Positioning and stimulation activities for infants and young children with motor problems, Kids-Play (A pathway to learning), Early Intervention - A service model and Posters and pamphlets/information brochures will form a comprehensive intervention package for early intervention.

I strongly believe that with this package, NIMH can certainly take Early Intervention Service to every nook and corner of our country.

Date: 1st March 2011 Place: Secunderabad

(T.C. SIVAKUMAR)

मनोविकास नगर, सिकंदराबाद - 500 009 तार : मनोविकास दूरभाष : (का) 27759267 (नि) 27992617 फेक्स : 040-27758817 Manovikasnagar, Secunderabad - 500 009. Grams : MANOVIKAS Phones : 27759267 Fax : 040-27758817 E-mail : director@nimhindia.org, nimh.director@gmail.com Website : www.nimhindia.org



Preparation of this manual is undertaken keeping in view the requirements of professionals therapists and specialists on other areas of development apart from their own specialists. Information is provided which is basic along with technical back ground for easy understanding which will enable the professional to provide early intervention services. However the reader should note that each section is comprehensive enough to render services but does not make one an expert in those specific fields other than their own. Therefore the need to consult the specialist for expert opinion and guidance is inevitable.

The intervention package is for infants and toddlers who are at risk, or have developmental delays and or disabilities. Since it is meant for professionals and therapists the content and language includes technical terminology which is presented in as simple terms as possible. The content is fortified with ample illustrations and line drawings. The problems and disabilities are highlighted by a red flag mark. The different disabilities are represented by icons visual, hearing, and CP, against which the adaptations are detailed.

The manual has sections on two areas of development Speech, Language, Communication and Social development.

Each sections has two parts. In the I part there is brief introduction followed by development (Stages or Milestones) importance of that stage characteristic features of deficits, delays and abnormalities and their effect on child's development. In the II part the skills to be achieved and the intervention technique. The intervention techniques are amply illustrated by figures for clear understanding. Wherever modifications and adaptation are required necessary changes are indicated.

Speech, Language and Communication: In this section after highlighting the importance of speech and communication and defining speech, the prerequisites for normal development of speech and language are dealt with Brief anatomy of the speech apparatus is diagrammatically represented and the function of different parts are given in a tabular form. After defining language and mention of major components of language the normal speech and language development details are presented. This is followed by definition and development of communication and functions of communication and language. The sequence of learning speech and language, the major skills involved and the signs of speech and language problems are enlisted.

The package of intervention in this area contains 1- 25 items. Each item's normal development, its importance and intervention techniques and adaptations are briefed.

**Social**: The various social responses of neonates and infants exhibit the natural tendency of infants to be social participants. With definitions of socialization and social competence the milestones of social development are listed in a table according to chronological age of achievement

In the following text the social development sequence is explained briefly. Attachment plays an important role in social development. The stages of development of attachment and different forms of attachment and characteristics of a securely attached infant are all mentioned in brief.

The abilities an infant must eventually develop to become socially competent and the activities which foster social development are enumerated.

The intervention package consists of 38 items. Each item is categorized under one of these area attachment, social play, Identity, Cooperation, Independence, Self image, Each item is considered under normal development its importance, intervention methods, adaptation for associated disabling conditions. Each intervention item is appropriately illustrated in a picture diagram.

The intervention package has total of 12 items for each item the normal development and its importance are discussed. For the enhancement of development and the existing problems the interventionist are prescribed.

- Dr. Amar Jyothi Persha - N.C. Srinivas - R.C. Nitnaware

### INTRODUCTION

Early Intervention in the field of disability means offering guidance, support and implementation of intervention plans in very young infants and toddlers who are at risk or have developmental delays and disabilities. Even though early intervention services are being given in our country over few decades by service oriented and dedicated personnel, there is paucity of global and quality services. There are too few trained professionals with expertise limited to their own specific professional field.

Early intervention in the field of mental retardation and cognitive deficits is a complex area as development of cognition and evolving of intelligence has contributions from all other developmental areas like motor, speech language communication, sensory systems (vision, auditory etc) and socialization. Psychosocial factors like families, home environment, socio economic factors, culture and beliefs also have a great impact on the child's development. Hence the field of early intervention requires professional and technical input from various professionals like medical professionals, therapists like Physiotherapists, Occupational therapists, Speech therapists and audiologists, Child development specialists, Psychologists, Social workers and Nursing staff and many others.

**Target Population:** The Target Population includes infants and toddlers who are at risk or who are developmentally delayed or disabled. This group forms a highly heterogenous group with children having variable presentations, clinical features, diagnosis, disabilities, functional levels, associated conditions, complications, progression, prognosis and outcome. Hence their interventional requirements also vary accordingly. Early intervention requires a holistic approach and therefore involvement of specialists and professionals.

Professional and highly specialized services of this field are available only in apex institutions or urban specialized centres. 70% of our countries population lives in rural areas. In such a scenario the majority of the target population may not have access to these services, where it is of utmost importance and of high priority. To consider all these factors and plan and implement early intervention programmes is a great challenge.

**Curriculum:** There are various curricula available in this field focusing on different target like child, family, home etc. The child is at the centre point intervention and learning. Basically the interventions all are meant to enhance child's development, acquisition of new skills, independent functioning and prevention of secondary handicaps.

Each curriculum basically contains what the child should learn and in the most, appropriate way of doing it. While planning a curriculum we must keep in mind that each individual child differs in characteristic features, development and related problems.

Therefore the intervention plan is individualized with provision for modifications and adaptations as per the child's needs.

The curricula differ as per the requirement of the end user. Professionals or non-professionals, apex level, intermediary or grass root level workers and parents. It also depends on its site of usage. Ex - home setting, or at a centre, rural or urban areas. The curricula should not be highly structured and a degree of flexibility is essential.

The persons working in early intervention programs are expected to know basic information on normal child development and deviations from norms. The curricula should cover the areas of child development like motor, cognition, speech language and communication sensory development and socialization and play. Different areas of development may be considered separately for convenience and for the sake of dealing child development with ease but the underlying interdependence of the areas should be well understood and followed.

There are a number of curricula available for use by the grass root level workers or itinerary teachers. Many of them are instructional manuals for easy understanding and providing of interventions. They often cater to at risk children or those functioning with mild to moderate developmental delays. Most of them do not have adaptations and flexibility is highly limited. The basics of the therapeutic interventions are justifiably omitted. The grass root level worker are able to transfer these instructions to the caregiver in a simple manner after appropriate training.

Transdisciplinary Approach: In order to enhance the quality of services and take services to a higher level, professional services are very essential. Since the field of early intervention requires the professional input from various fields a multidisciplinary approach is considered as a norm. However this approach does not ensure accessibility, provide services under one roof and is not cost effective. Hence the most desired approach is a change from Multidisciplenary to Transdisciplinary approach. Here one professional or a member of the multidisciplinary team assumes the responsibility of providing intervention to the child with vital inputs of intervention goals, techniques and mode of execution from different professionals and specialists. This approach curtails the costs and provides basic interventions to the child with guidance and support of other professionals without losing precious time and critical periods of learning while awaiting professionals interventions. This the transdisciplinary approach is accessible, acceptable and cost-effective.

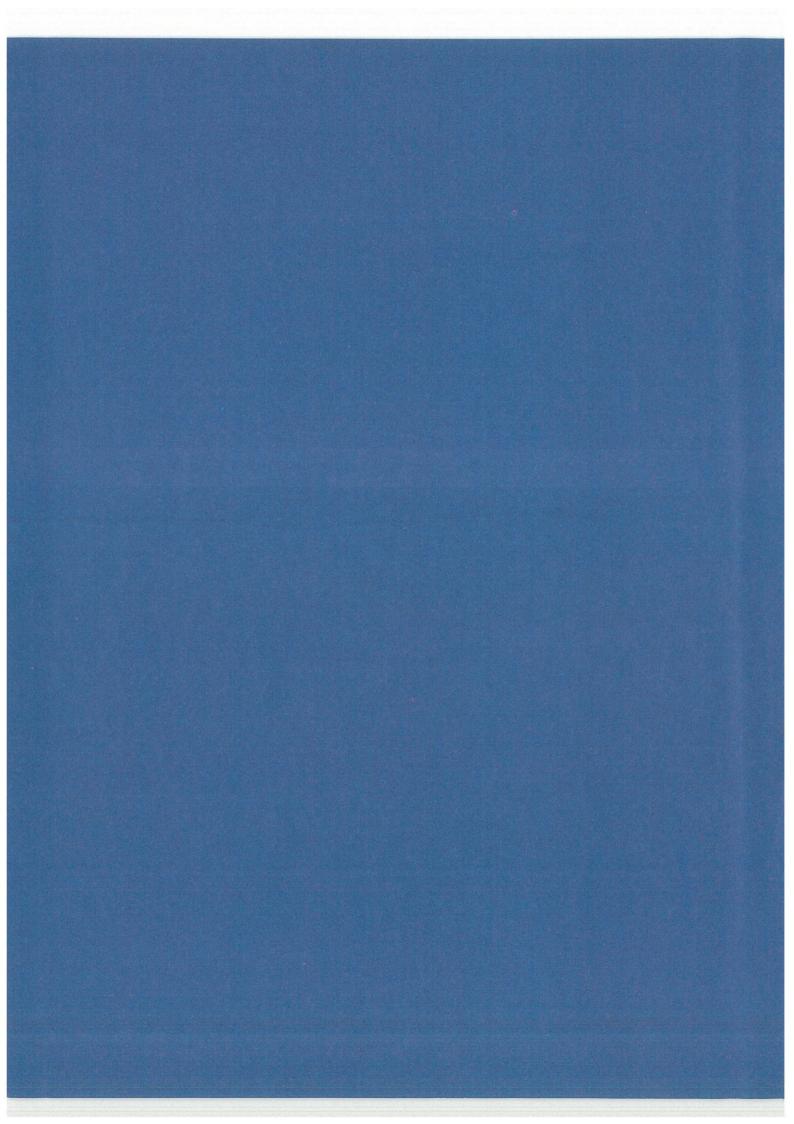
**Site:** Early intervention services can be provided in Hospitals, Paediatric clinics, child guidance clinics, rehabilitation institutes and centres, special early intervention centres etc.

Reaching out early intervention services to the infants and toddlers especially in the rural areas, it is convenient and cost effective to utilize the already existing net working systems and infrastructures such as health services, woman and child welfare services and disability, rehabilitation services.

**Personnel :** Since parents and family, approach a medical professional first for all their child's concerns and problems and medical doctors and as they are avialable at PHC and District Centres, they form ideal persons to be trained as early intervention providers. Other professionals, and therapists like Physiotherapists, Occupational therapists, Speech language therapists, Audiologists, Rehabilitation professionals, child development specialists and qualified nursing staff with basic knowledge of child development are all eligible to serve as early interventionists. Some of them are available in District centres though to a limited extent. Their professionals background and knowledge can be utilized with further training inputs in Early Intervention to make them the service providers.

**Training**: Targeting these professionals as Early Intervention service providers requires a short term training program to orient them on Early Intervention and provide a curriculum which will enhance their skills in service provision. Hence this curriculum is prepared keeping in view their training needs. However these personnel are required to consult specialists and seek their guidance when and where required. The manual can help in intervention formulation and be a ready referral to guide service providers.

# SPEECH, LANGUAGE & COMMUNICATION



## SPEECH, LANGUAGE & COMMUNICATION

Human beings communicate with one another through speech. Speech is unique and fundamental to human beings. It is the most frequent and important way of sharing our thoughts to each other. The act of speaking is a complex and highly co-ordinated process involving many systems of human body. In-co-ordination of these systems may lead to impairment of speech.

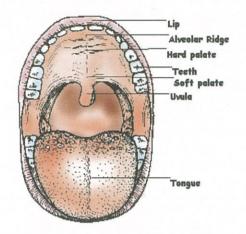
**Definition:**- Speech is audible manifestation of language. Speech production is a complex motor act that involves movements of various articulators.

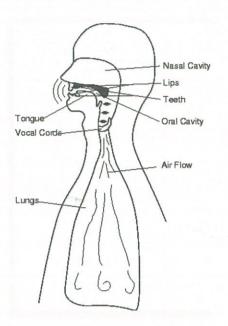
### Prerequisites for normal development of speech and language

In order to communicate i.e. to learn and use language, the individual needs to have the following pre-requisites.

- Normal neuro motor Maturation: Maturation of the CNS is a pre-requisite not only for learning fine motor skills but also in learning to understand and produce speech. A child of 3 months do not localize the sound source. However the same child by the age of 6 months localizes sound source. This is possible because of neuro motor maturation.
- Sensory abilities:- Adequate hearing and vision are essential for learning spoken and written language and ommunication. Speech is acquired though hearing. Hence, children with hearing loss show delay in development of speech and language.
- Motor ability:- Motor abilities range from ability to produce speech sounds to form manual hand signs as means of communication. Speech is one of the most complex motor act that involves the movement of all the articulators for production of speech.
- Speech production mechanism:- Adequate structures and functioning of speech production mechanism is necessary to produce speech. If the structures of the mechanism like lips, tongue, and throat are affected, problems like feeding difficulties, nasality, and drooling may also result along with speech problems.
- Normal intelligence and cognitive development:- To acquire language, child must have normal intelligence for using symbols. To use symbols appropriately one must be able to attend, recognize, associate, generalize and store items in the memory. Language development is closely linked with cognitive development.
- Stimulating environment:- Language is acquired in social environmental context. People and environment are the sources for language and communication. 3 environmental aspects are crucial in promoting language acquisition.
- a) Emotionally caring relationship with the caregiver or parent who provides rewards for the child's attempts to communicate.
- b) Effective model who uses simple but well formed language patterns.
- c) Providing opportunities to communicate or help the child to have something to say.
- Means of communication Child must have a way to communicate his desires, needs and feelings. It may be speech, manual communication or sign language.

### Brief anatomy of speech apparatus:





### Structure and function of the Speech Mechanism:

Appearance	Function
Symmetrical	Protrution, Retraction.
Symmetrical	Protrution, Retraction, Lateralization, Elevation
Normal Bite	Help in production of specific speech sounds
Normal arch	Help in production of specific speech sounds
Normal	Helps in providing appropriate nasalance
Symmetrical	Elevation to close the mouth,droping to open.
	Symmetrical Symmetrical Normal Bite Normal arch Normal

### LANGUAGE

**Definition:**- Language is a set of arbitary symbols used by group of people for the purpose of communication. Language is the main vehicle for communication.

### MAJOR COMPONENTS OF LANGUAGE

Form:- Deals with the structure of language, how to form words and sentences grammatically.

Content:- Deals with meaning part of language - what to say or the content of the message.

Use:- Deals with the use of language - where, when, with whom, and for what purpose language is used.

### Normal Speech and Language Development

Language acquisition starts very early in life, probably starts from birth and moves on through the stages of reflexive crying, babbling and finally into acquisition of full fledged language.

**Development of language**:- The four major components of the language are phonology, morphology, syntax, semantics, and pragmatics.

Phonology:- Studies the range and rules for using speech sounds of a language.

Morphology:- Deals with the rules for combining speech sounds to form meaningful words.

**Syntax:**- Refers to grammatical aspects of language deals with word order, inflection, and relationship between words. It describes the rules that speaker uses in forming and in understanding sentences.

**Semantics**:- Study of language meaning and how it is acquired. Semantics is concerned with the relationships between language and knowledge of the real world of objects and events.

**Pragmatics:**- Study of use of language. It deals with set of rules that determine who says, what to whom and in which circumstances.

**Receptive language**:- Refers to understanding of spoken or written words, sentences and signs i.e. the words and meaning intended are linked by the person on hearing and seeing.

Expressive language:- It is the process of using either speech, writing or signs to indicate various meanings and needs to the listeners.

Language areas in the brain:- There are three major language areas in the left hemisphere.

- Broca's area:- Present in the left frontal region. Damage to broca's area results in atypical aphasic syndrome called broca's aphasia where expression is effected.
- •• Wernicke's area:- It is located posterior to the left temporal lobe. Damage to wernickes area produces an aphasia that is characterized by fluid speech with many neologisms (non sense words) and poor comprehension.
- Arcuate fasiculus:- It's a band of subcortical fibers that connect wernickes area with broca's area. Patients with lesions in the arcuate fasciculus present a disorder called conduction aphasia.

### **COMMUNICATION**

**Definition:**- Communication is a process of exchanging information and ideas. An active process which involves encoding, transmitting and decoding intended messages.

**Development of communication:**- Communication appears to be present at birth. Within few minutes after birth child moves the body in synchrony with the human voice. Care givers respond to the infants early reflexive behavior. The infants learn to communicate their intention. Infants learn different gaze patterns used in communication. The infants also learn the signal values of head movements. Both face and head structures are important for early communication because these structures are relatively advanced in their maturation. These discriminative abilities and preferences provides the basis for early communication.

### FUNCTIONS OF COMMUNICATION AND LANGUAGE

S.No	Communication functions	Meaning	Examples
1.	Instrumental	To satisfy ones needs	I want water
2.	Regulatory	To control others behavior, correct, criticize, demand.	Do not lie
3.	Interaction	To greet, express, various, social routines and to mix with other fellows.	Good morning, thank you.
4.	Personal	To be aware of one's self and to regulate one's own behavior.	I shouldn't do that.
5.	Heuristic.	To seek information, concept formation, relating to development of ideas and knowledge.	Who is our new PM
6.	Imaginative	To involve in imagination, fantasy, to comment, or to think about language.	You smile like flower.

Modes of Communication :- There are different modes of communication. The following matrix with examples helps in understanding the modes of communication :

	VERBAL	NON VERBAL
VOCAL	Human speech	Cries
		Moans
NON VOCAL	Writing	Gestures
	Sign language	Pictures

- Vocal communication: Communication involving vocal apparatus (speech mechanism), for example human speech, cries etc.
- Non vocal communication: Communication that does not involve vocal apparatus, for example wirting, gestures ets.
- Verbal communication: Communication that has linguistic structure, for example human speech, sign language etc.
- Non verbal communication: Communication that does not have linguistic structure, for example moans, gestures etc.

The three major aspects namely communication, language, and speech are interrelated. Communication is much more than using language and speech. Language involves more than speech. Speech without language is not meaningful.

- Reflexive utterances (0-3Months):- Much of the behavior of the new born is reflexive and be yound his/her immediate volitional control. In the first 3 months, the child has a very limited repertoire of vocal behavior. The most common sounds made by the new born are crying and comfort sounds.
- a) Crying sounds:- Early crying is generally a discomfort sound and is one of the methods of communication. By the end of the 1<sup>st</sup> month cry becomes differentiated. When baby is 2 months old, parents can identify several distinct types of crying patterns. Eg: anger, pleasure, pain, and hunger. During crying, child practices the essential motor coordination besides establishing a necessary feed back loop between the larynx, the mouth and the ear. Crying, particularly when differentiated establishes a primitive communication link between child and parents.
- b) Comfort sounds:- Reflexive utterances like gurgles, sighs and grunts are called cooing or comfort sounds. They generally appear during or after relief from distress Eg: Feeding, diaper changing. By now infant has developed muscle control to start and stop oral movements. Child shows signs of social awareness and visual tracking following an adult movement with his eyes and smiling.
- Babbling (4-6 Months):- It is a universal Phenomenon found in all human infants. It is characterized by chaining and linking of sounds together on one exhalation. These string of syllables have no Semantic meaning. This activity is vocal play. Baby seems to be playing with his tongue, lips, and larynx. Neuro muscular control moves from back of the oral cavity to front.
- Socialized babbling (6-8 Months):- By 6 months of age babbling appears to have an instrumental function where child uses it to get attention, and to express demand. This stage is characterized by syllable repetition or doubling of sound in his vocal play. Eg: "dadadada...".
- •• Inflected vocal play (8-10 Months):- Baby uses inflection that sounds like questions, commands Etc. Private vocal play and social vocal play continues. Child through his vocal gymnastics masters coordination necessary for meaningful speech. Child responds to parents speech.
- First words (1-1 ½ year): By the age of 1-1 ½ year most of the children say their first words. Before producing adult like words, child uses different self made words which are called as ideomorphs. First meaningful utterances are single words. These words are often duplicative. Eg: "baba" for daddy, showing the influence of previous babbling.
- Two word phrases (18Months):- Combining two words happen around 18months of age. During the early two word combinations children talk a great deal about objects. They point to them, name them, they talk about where the objects are and what they are like. Some of the common word combinations are as follows:
  - Eg: 1 Agent + action. "Mummy come". 2Agent + object "Drink milk".
- Development of sentence structures:- Around two years of age children produce sentences that are 3-4 words in length and combine these words to produce a variety of grammatical constructions, questions, commands, as well as statements. Child starts using negation and question forms between the age of 2 ½ to 3 years. During 2 ½ to 3 years vocabulary increases due to increase in experience. From the stage of simple sentences child slowly starts using complex sentences.

### Sequence of learning speech and language

### Language

- First comprehension and then expression
- Comprehension and expression of more frequently used speech sounds and words and then the rarely used ones.
- Comprehension and expression of simple terms and then complex terms

### Articulation

- Articulating speech sounds in a sequence.
- First articulating bilabial speech sounds like |p| |b| |m| then |h| |w| etc.

### Fluency

- Normal non fluency is seen until 5 years of age.
- Rate of speech is initially slow and increases gradually as a command over the language and as the level of cognition imporves.

### Voice

Initially the infant has the high pitch but varies slightly as the age of the child advances respective of the gender. Rapid change in voice is observed after the age 12 in both the male and female children.

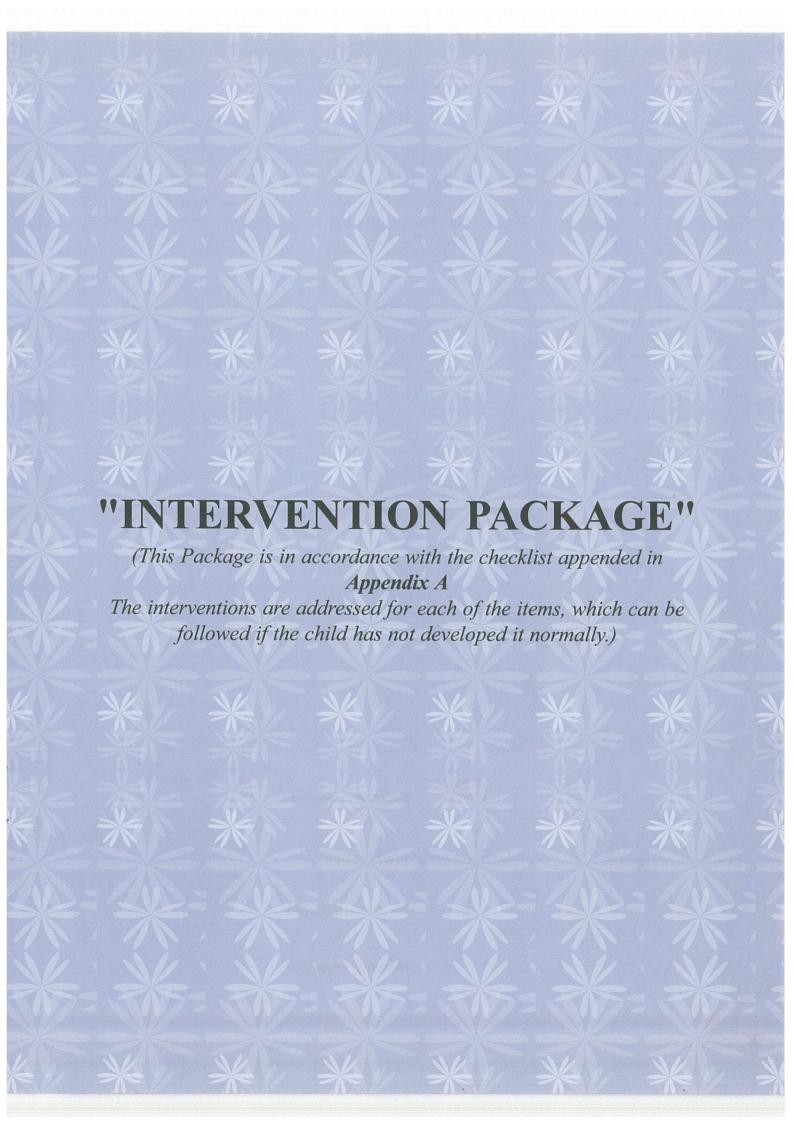
### Signs of Speech and Language problem:

- Frequent crying and screaming for needs
- Insufficient accuracy when spoken
- Does not babble by age of 6 months
- Stops babbling after the age of 6 months due to hearing impairment
- Limited or lack of variations in the vocalizations produced by the child.
- Inadequate language and communication as per the age
- Cleft or fistula in the palate
- Tongue tie
- Tongue thrust
- Drooling
- Macroglossia
- Visible irregularities in the shape, size or structure of speech apparatus.
- Inability to blow air, puff cheeks, pucker lips for kissing.
- Reduced or limited movement of tongue, jaw and lips
- Abnormal or inappropriate voice in terms of pitch and loudness.
- Inability to imitate speech sounds
- Poor or lack of eye contact
- Poor or lack of attention towards an activity

### Major speech language skills

Comprehension

Expression





# SPEECH, LANGUAGE & COMMUNICATION

ITEM

1

# Looks at speakers face Age: 0-3 months

### **NORMAL**



- Normally children look at speaker's face, on hearing the speaker's voice.
- They get attracted to the speaker through the colors of the face, contrast and facial expression.
- They try to attend to the speaker, by looking at the speaker's face.
- → For this normal vision and hearing are essential.

# IMPORTANCE

- This indicates development of attention. This is one of the prerequisites for normal speech and language development.
- •• For the purpose of communication.
- Communication forms the basis for emotional and social development.
- This increases the awareness of various stimuli, present in the child's immediate environment.

### Intervention:

- It is a naturally occurring behavior.
- Newborns can see best at approximately one foot distance.

- They tend to focus on faces and objects at this distance.
- Keep your face close to that of the child's, nearly about a foot distance.
- Talk to the child while looking into her eyes with a smiling face.
- To make the child look at you for longer time, talk in louder tone and at a slow rate of speech.
- To make the activity more interesting, use a variety of exaggerated facial expressions along with variations of voice.
- Use of mask and heavy makeup (dark eye makeup, bright colored bindi and lipstick) will make the child attend to your face for a longer duration.
- See that adequate lighting falls on the face for it to be visible to the child.

### **Wisual impairment:**

- More of auditory and tactile clues (touching the lips for movement and throat while talking for feeling the vibrations) are necessary.
- Change in voice and intonation, with slow rate of speech, is essential for the child to attend to the speaker.
- Make the caregiver's face brighter with dark eye makeup bright colored bindi and lipstick.
- Include contrast with light focused on the face to attract the child's attention.

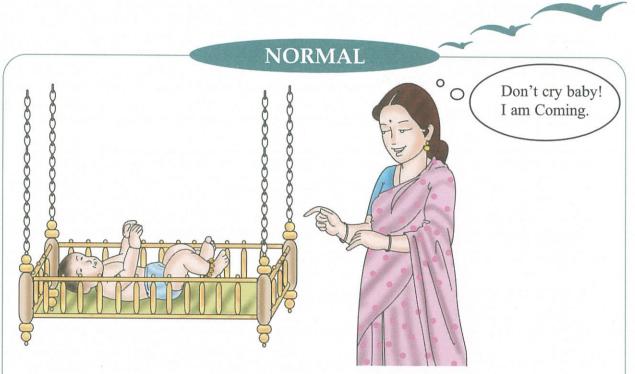


### **Hearing Impairment:**

• Make more facial expressions, exaggerated lip movements

ITEM 2

# Stops crying on hearing human voice Age: 0-3 months



- The Newborns cry, as they want attention to their needs like hunger, change of diaper or when they feel discomfort.
- They communicate their needs through cry.
- The caretaker or the parent takes the cue and responds to the child by speaking and attends to the needs promptly.
- Also infants gradually develop different types of cry for their different needs

# IMPORTANCE

- Important indicator of auditory attention, which is necessary for communication.
- Auditory attention is a prerequisite for normal speech and language development.
- It strengthens the emotional bond between the caregiver and the child.

### Intervention:

- Attend to the child promptly when he cries.
- Talk in a high pitch and soft voice when you approach.
- Keep talking while you are in the activity of attending to the child.
- This way the child associates that the speaker is attending to his/her needs.



### **Wisual impairment:**

- More of auditory clues where the caregivers have to speak loudly and change intonation.
- Cuddle the child by touching the child. (Tactile stimulation) where the child can feel secured and stops crying on hearing the speakers voice.



### **Hearing Impairment:**

- Use appropriate facial expressions.
- Show the objects while talking about them (Objects like bottle, diaper etc with which you are attending the child.)

ітем 3

## Different cries for different needs Age: 0-3 months

### **NORMAL**



- The basic type of crying is apparently a rhythmical type in which there is a period of silence of just half a second occurs and alternates with the occurrence of voice expiration, of about half a second (during which inspiration occurs).
- This appears as a signal that the child is uncomfortable and is known as discomfort cry.
- Second type is the pain cry, which is characterized by a long burst of voice expiration, of about four seconds.
- Third type is mad cry that appears when something is taken away from the child. This is identified by fricative noise.
- All these cries have pitch pattern, which at first rise and then fall towards the end.

# IMPORTANCE

{The child should immediately start crying when he is out of the womb, to establish his first breath, in order to supply oxygen to the brain cells. Till the day the child is in the mother's womb, his oxygen needs are taken care through the umbilical cord}

- Children who do not cry immediately after birth are at high risk for developmental delays or other problems.
- The significance of cry is so manifested in the early life that, the neurological scoring is done on the presence of the intensity of the cry that the child exhibits.
- Cry is a basic tool/mode use by the child for the purpose of communication.

- Cry is initially used to draw the attention of the caregivers to satisfy his/her needs.
- Differential cry helps the caretaker to attend the child's need at once instead of taking time to guess the reason for cry. This in turn helps the child to convey his different needs by crying differently

### Intervention:

Listen carefully to the cry of the child and try to guess what the child might mean by that cry.

A cry that is loud in volume and high in pitch may mean pain.

- Then check the baby throughout the body, if there is anything that is pricking/hurting.
- Check if the toes /fingers are entangled in the towel thread or hand or leg struck in the cradle/crib.
- The child may need to pass stools or gas.

A cry of low volume and high pitch with long pauses in between may mean discomfort.

- Try to look for the cause of discomfort.
- May need a diaper change that is soiled and wet.
- Uncomfortable clothing, like linen temperature should be corrected.

A cry that begins with low volume and increases to a loud one may mean hunger.

Child needs a feed.

A whiny cry with little change in tone:

May indicate a need for cuddling, stimulation, attention-Sooth the child by humming, singing and taking the child into arms.

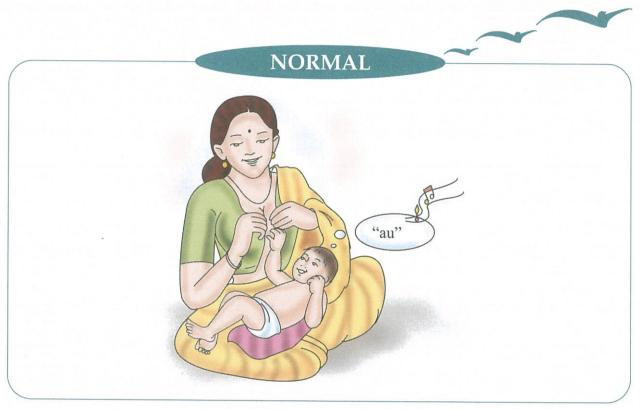
Keep the child close, face to face and smile and interact.

### Note:

Not all children are the same. As individual differences exist in development, so does in crying. So the above mentioned activities are the naturally occurring, but be prompt to attend to the child's individual differences. Promptly attending the child will differentially reinforce the types of cries and thus the child starts communicating her/his needs.



# Cooing sounds just after feeding or diaper changing Age: 0 - 3months



- Newborns in general are relaxed and happy after feeding.
- They are comfortable after changing their wet diaper.
- They enjoy making some reflexive speech sounds, like "a", "au", "e" during that time.

# IMPORTANCE.

- This is to seek the attention of the caregiver.
- To start an interaction, which forms basic necessity for learning speech and language.
- This stage of reflexive vocalization further helps in babbling.

### Intervention:

- Initiate an interaction, after the child is being fed.
- Child appears to be relaxed and happy.
- Make some reflexive speech sounds with exaggerated lip movements, like "a", "au", "e".

- •• Encourage the child to respond to you by making vocalizations, "a", "au", "e". Reinforce the child's imitation through patting and cuddling.
- 2 Speak in parrot like intonations and imitate the child's speech, and this gives the child a positive feedback and leads to repetition of such behavior in the child.

### Visual impairment:

The caregiver needs to speak loudly and needs to kiss and hug the child (more touch sensation), so that the child will have a positive reinforcement.

The child may start cooing, and smiling at the caregiver.

ITEM 5

Child is usually frightened or disturbed by angry voices and shows a response like crying or ready to cry Age: 4-6 months

### NORMAL



- At this age, the child will be exploring the environment, by being exposed to various stimuli.
- The child will be able to recognize the mother's voice from others.
- Able to find out any change in the intonation pattern, along with the facial expression.
- The child may immediately start crying when there is a change in mother's voice (angry voice and facial expression)

# IMPORTANCE

- Recognition of parent or caregivers voice, from strangers.
- Shows signs of social awareness, tracking adults movements with eyes.
- Able to mimic facial gestures of adults.
- Able to differentiate pleasant from unpleasant voices and facial expressions.

### Note:

All this happens naturally, **Eg:** - if the mother's voice is raised high with change in her intonation, indicates that the mother is angry. This makes the child frightened and starts crying. At the same time, if the mother talks to the child in a low voice and with a smiling face, indicates that the mother is happy/pleasant. The child naturally learns that angry voices are meant to say disapproval and a pleasant voice indicates an approval from the mother.

### Intervention:

Give more opportunities for the child at appropriate times to experience pleasant voices and facial expressions in contrast to angry voice and facial expressions.

ITEM



Exploration of mouth with tongue and producing sound such as lip smacking, squeals, growls, clicks Age: 4-6 months

### **NORMAL**



- Other than crying for communicating their needs and cooing to express their pleasure after being fed, the infants also happen to make many sounds in the act of exploring their own speech apparatus.
- Lip smacking occurs when child plays with his lips.
- Child produces clicks or growls when playing with tongue and palate.
- He manipulates his voice box/larynx to produce squeal.

# IMPORTANCE

- These activities can help to strengthen orofacial muscles.
- Facilitation of the normal movements of the tongue which is very much essential for normal speech and language development.
- Control over the articulatory mechanism will be achieved. They form the basis for later imitation of sounds like speech sounds, animal noises, etc.

### Normal development:

- This can be elicited through imitation naturally.
- The child squeals and growls at the time of feeding, **e.g.** when the child is fed with sweet soft food, the child squeals, growls and even sometimes elicits clicks.
- Clicks occur when milk is sucked into the mouth, a closure is made, between the back of the tongue and soft palate, and the mouth cavity is enlarged, thereby sucking the milk into the mouth.

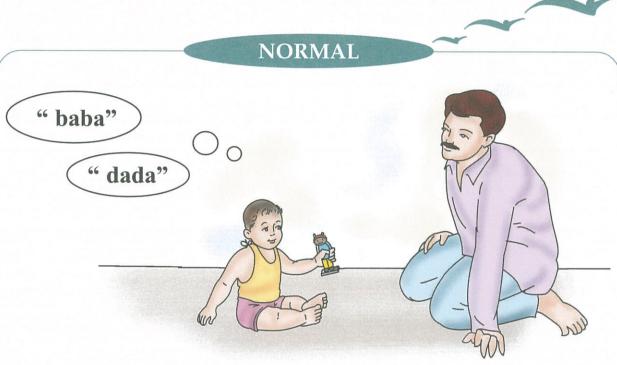
### Intervention:

- Take some honey, or jam and keep it on the lips, the child starts lip smacking to taste it. Imitate their act to reinforce.
- Rudimentary forms of hand to mouth movements can be initiated using play material, eg: rattles, teethers, and bottle nipple

**TEM** 7

# Produces early babbling, frequently heard sounds like "baba", "dada"

Age: 4-6 months



- Babbling is characterized by chaining and linking of sounds together, on one exhalation.
- It is a universal phenomenon that is found in all human infants.
- Syllables of consonant and vowel, vowel and consonant will be heard frequently.
- Baby seems to be playing with the tongue, lips, and larynx. This vocal play is carried on when the child is alone, and disappears when someone attracts his attention.

# IMPORTANCE

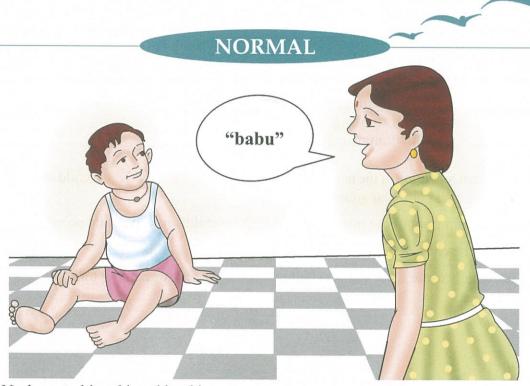
- Rapid control of articulatory mechanism occurs.
- Through babbling oro facial muscles are strengthened which in turn help in speech and language development.
- Child learns of social awareness in an environment where she begins to use her vocalizations, to get the attention of others.
- It also builds the link between tactile and kinesthetic sense, and through this the child learns how to make certain sounds.

### Intervention:

- Let the child look at your face and then you say a series of sounds like ba-ba-ba or da-da-da.
- Encourage the child to imitate you and repeat. Praise the child if he/she makes any attempt.
- Imitate those sounds made by the child as exactly as you can.
- Praise him/her when he/she repeats.
- Some times babbling occurs spontaneously. Be keen on such events and promptly respond by imitating and encouraging the child. This will strengthen the child's behavior of babbling.



# Responds to name by turning head Age: 4-6 months



- Neck control is achieved by this age.
- They start recognizing and associate the particular speech sounds that are repeated.
- The attention of the speaker creates reinforcement when name is called, so they turn towards the person calling.
- By 6 months of age, the child is aware of his or her social environment.
- Babbling continues, child seems to take more pleasure to attend to people in his environment.
- Child tries to respond to others when called by name, by turning his head towards the source.

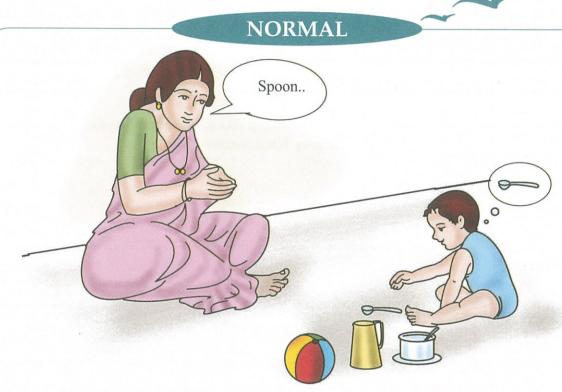
- Awareness of sound and people in his environment.
- Identification of specific sounds like his name.
- Initiation of social interaction, in form of socialized vocalizations and responding to name calling.
- Identification of familiar voices, by matching the pitch of their vocalizations, to that of the parent.

- When the child do not turn the head when called by name, make the child to turn to look at you, while you call his name.
- Call the child's name every time before you start talking to the child.
- Make sure the child knows his name.
- Explain the child's activities by naming her or him in them.

Ex.: Rani is eating, Rani is looking, Why Rani is crying.

- With constant repetition of the name in all the activities of daily living, the child starts identifying her self with that particular sound or name.
- Get the child in front of the mirror and tell here is (child's name), while pointing to the child.
- Encourage the child to point to herself, when her name is told.
- Use the child's name when naming body parts during play or bathing time.

# Recognizes names of few common objects and persons in the immediate environment Age: 7-9 months



- The child is able to recognize the parent's voice and the persons in the immediate environment **Eg:** siblings.
- This is because the parents and the siblings are the source of constant reinforcement in their environment.
- The child can recognize objects by name when she/he gets to hear the name many times in association with the object.
- Recognition of names of objects and persons in the environment occurs in sequence. The sequence of development is as follows:
- Familiar to unfamiliar
- ◆ Immediate environment to outside environment
- Parents and immediate caregivers to others

- This skill improves the child's receptive language.
- Helps in identification of various objects in his immediate environment

- Take few very commonly used objects in the immediate environment.
- Show the object to the child while talking about it. Let the child handle it if possible.
- Name the object every time you handle it.
- Talk to the child about its shape size and its use. This helps the child to associate the words to the objects.
- Place these objects a few inches away in front of the child. Let the child look at these objects.
- Ask the child to show the object that you name.
- The child should be able to indicate through looking, touching, or pointing towards the object. Common objects can be (kitchen items, play items, furniture, etc).

# Uses voice sounds to get attention of others Age: 7-9 months

#### **NORMAL**



- The initial way to gain attention is, the child cries for help, or a need to be fulfilled.
- The child develops the skill to use sounds to attract the attention, Eg: using different types of sounds for different needs.
- In general the child uses different ways to get attention of parents or caretakers, like use of babbling, or vocalizations etc.
- •• It is observed that caretakers or parents attend to the children promptly, only when they cry. It's better to be focused on child's way of communication and reinforce all the appropriate ways.

# IMPORTANCE

• It strengthens the oro motor muscles.

- It increases the breath control, which is the source of voice.
- It improves the child's expressive skills.
- ◆ It also improves the socialization skills.
- It paves way for imitation skills.

- Use the appropriate ways of getting attention like vocalizations.
- Wait for the child to use the vocalization and you answer him promptly by approaching the child.
- Speak softly and imitate his vocalizations by adding meaning to it.
- Make sure that you don't pay attention to his other means of calling attention like crying and throwing temper tantrums.
- This encourages the child to use the appropriate ways of calling attentions.

# Uses some speech like vocalizations appears to be naming some things in his own language Age: 10-11 months





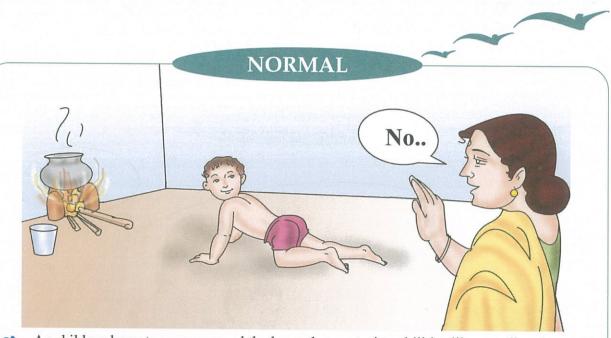
- Child makes specific sounds, which carry specific meaning. These words may not be like adult words.
- Child uses different self-made syllables to denote different objects and actions.
- Child forms his own words, these self made words of the child are called ideomorphs.

**For example:** "fff" may mean blowing out a match stick, smoke, chimney etc. Child may use different intonations on the same ideomorph to denote different meanings in different situations.

- It is a more refined way of expressing needs rather than initial crying and cooing
- •• It improves the expressive skills
- It helps in learning identification of objects and people
- It builds the social relationship in the immediate environment

- At this stage the child uses some jargon like utterances followed by ideomorphs, which are nothing but self made words, **Eg:** If the child wants water and the child is not able to say water, make the child, say "lala". The child learns to say "lala" through imitation.
- In this way the child learns to use self-made words for various needs, which is nothing but initiation of motherese. Eg: for milk the child may say, dudu, for rice he may say aamm.
- Accept these protowords and see what they mean to the child.
- Provide the correct word as model but at the same time do not correct the child's utterances.

### Understands the word "no" Age: 10-12 months



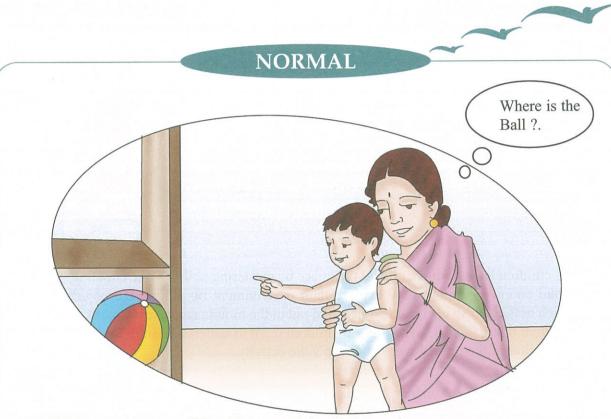
As children learn to move around the house by mastering abilities like crawling, learn to stand taking a support, they explore their environment by pulling the objects within reach or they grasp every little object and put in the mouth, caretakers usually try to stop children doing this by saying "No". Children learn to understand it by the loudness and intonation of the uttered word and stop's the activity.

# IMPORTANCE.

- Improves receptive vocabulary.
- Recognition of people in child's environment.
- Helps in comprehending different facial expressions of disapproval, intonations

- •• If the child is not showing any change in the activity or not stopping the activity, Stop the child from the activity by holding his hands (physical restraint) and look into the eyes/face and say "no" with appropriate facial expression.
- Make your eyes wide open and make sure you really mean it.
- Move the child away from that place. You can say the word a little louder.
- Next time when you say the word "no" with the same feelings, and when the child responds to it appropriately then praise him.
- You can help the child learn this through imitation by providing a model of his/her siblings or other family members.

# Now and then can follow simple commands accompanied with gestures (Like put that down, where is the ball) Age: 10-12 months



- Children at this age will be able to speak in single words.
- They will be able to understand gestures, change in intonation, and meanings of some parent's speech.
- They understand short phrases and simple commands and sentences.
- Words spoken by the child are of single syllable (consonant vowel) or two syllables (cvcv)

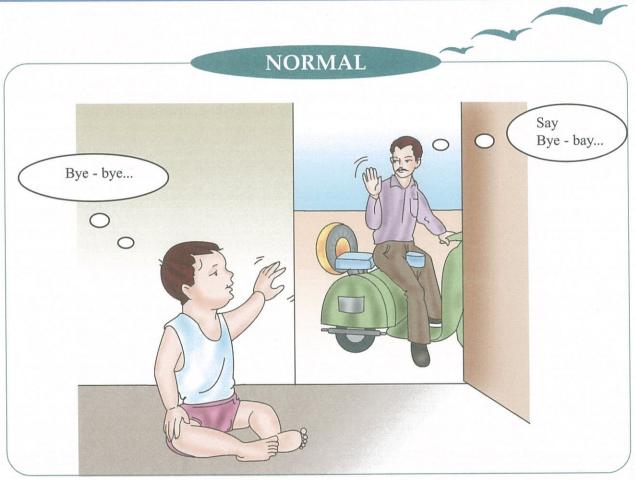
Eg: mama.

- It helps in improving receptive skills
- It helps in improving imitation skills
- ◆ It helps in Improving vocabulary
- It helps in following simple instructions
- It helps in building relationship with the environment

- Involve the child in an activity like playing with a ball
- Let the child hold the ball. Ask the child to throw the ball. Now you take your turn, you take the ball and ask the child where the ball is.
- In the same way, take another activity. For Eg: Say 'close the door' and point to the door.
- The child should be able to follow your instructions accompanied by gestures. To make it more interesting for the child, you can make a colorful paper cap and ask the child to put on his head or put it on your head.
- This can be done during any daily routine activity like feeding, dressing, bathing and playing.

Demonstrates understanding by making appropriate verbal response to some questions (Eg: Namaste, Bye-bye)

Age: 10-12 months

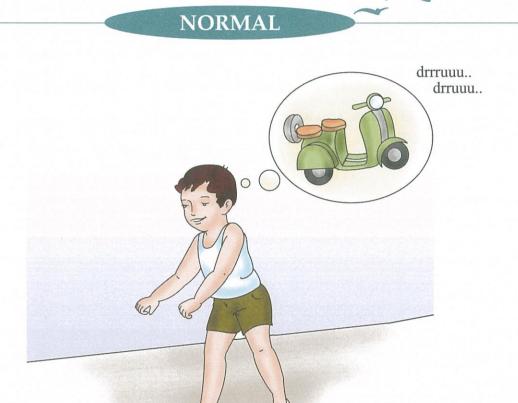


- Children show some of the commonly seen routine activities when asked, like how we say namaste, bye-bye.
- They learn these activities through imitation (non verbally) at this stage.
- Child imitates verbal sounds, which resemble like speech sounds

- ◆ Improve receptive skills.
- Following simple instructions.
- Identification of common objects and behaviors.

- If the child does not follow imitation then the child can be shown a model, by assisting.
- Hold the two hands together to say namaste.
- Wave his hand to say bye bye.
- To give him a good reinforcement and visual feedback, show him doing the activity in front of the mirror.
- When the child is able to do this praise him and encourage him to do when asked to do so.
- And gradually generalize activity in real situation with different people in the home and then with the strangers.

### Tries to imitate sounds Age: 10-12 months



- Imitation is an activity when the child, tries to act like or copy another person.
- •• It can be imitation of the body movements or speech sounds or non speech sounds through vocal gymnastics.
- The child gradually masters the coordination necessary for meaningful speech.

- Strengthening of oro motor muscles
- ◆ Improving imitation skills
- Control over articulatory mechanism
- Helps in further production of meaningful speech

- Start the activity with imitation of body movements like clapping, raising hands, touching cheeks or hair, turning the head side to side to get attention.
- Once the child is able to do the above activity puff cheeks, blow air, move lips from side to side.
- Make sound like cat/dog.
- Make sure the child shows attention through the activity, and ensure that child tries to imitate

#### Using verbal prompting:

**Eg:** if the child utters pa, say papa.. This improves the child's interest and imitation skills (through better feedback). Slowly move the child from speech sounds to first words. The activities under the item 15 and 16 can be tried one after the other as well as simultaneously.

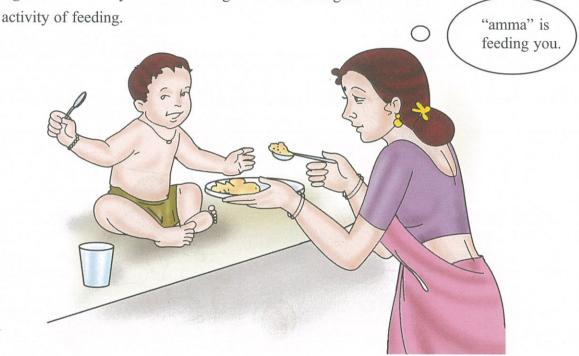
# Says first true words like amma, papa, dada etc Age: 10-12 months



- First word can be any word that the child uses meaningfully, by uttering it, and continues to use the word whenever the child wants to address it.
- Words spoken by the child are single syllable words or two syllable reduplicated words (cvcv).
- Usually the children say atta/papa/dada/etc, as their first word.
- The words spoken may be limited (eg. Child uses word 'dog' for only brown colored dog and not for other dogs of other colors) or extended. (eg. Child uses the word 'dog' for all animals with four legs).

- ➡ Improving expressive skills
- Naming family members, common objects
- Precursor for development of phrases

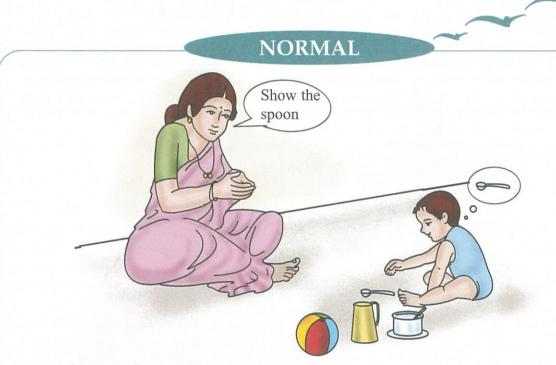
- ▶ Label the object or person in every sentence, spoken to the child.
- Expose the same word several times.Eg: mother can say these following sentences during an



- Ok now rama is hungry.
- Look "amma" is bringing you food.
- •• "amma" is mixing the food.
- "amma" is feeding you.
- •• "amma" is wiping your lips/cheek.
- •• "amma" will get you some water.

The mother can follow same pattern in different activities and different situations so that the child gets to hear the same word. For several times and associate appropriately. Make the activity more interesting by using picture cards.

# Points to common objects when named Age: 13-15 months



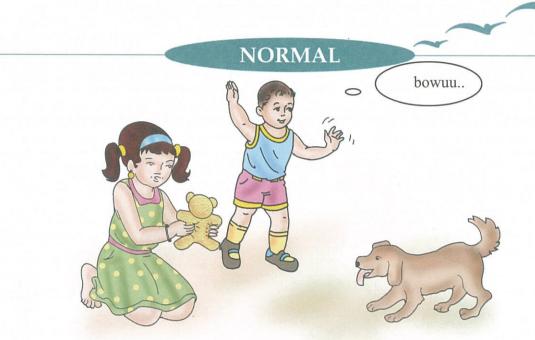
- At this stage first words are acquired.
- Vocabulary increases up to 15 words.
- There will be a shift from ideomorphs to adult like words.
- Semantic intentions start developing.



Improving receptive skills Identification of common objects Naming of common objects

- Take the child with you to see the different common objects present in his immediate environment.
- Name things for him as you hold or point to them. And begin to describe them.
- Make the child to point to objects/people when you name them.
  - **Eg:** Hold a ball and talk about its color, size, when he points or vocalizes answer him saying, "Yes, this is a ball", and keep repeating the description.
- This way you and your child can have a conversation.
- Begin to name body parts and encourage him to point to them when you name them.
- Ask your baby to 'look' at things, and point to them as he looks, if possible let him name.

### Imitates animal noises Age: 13-15 months



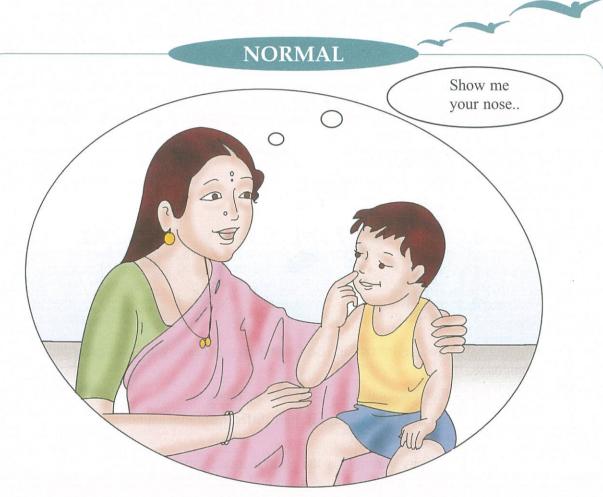
- 'Children Learn through' imitation, vocal imitation is necessary to develop further speech and language.
- Children love to listen animal noises and imitate them.
- They will have great fun when parents imitate different animal sounds that are commonly heard, and talk more about them.
- This can be achieved by waiting for the child to make any noise/sound, and repeat the sound by modifying it to approximate an animal sound.

# IMPORTANCE

- Increase in the rate of motor coordination.
- Masters co-ordination necessary for meaningful speech

- If the child makes a sound like 'ba' the parent can say 'amba' or 'baaa' like a cow and repeat the same sound, and say yes cow says "ba"
- Take book that has pictures of animals, talk to the child about each animal and imitate the sounds that each animal makes.
- Take the child to the animals and play and imitate let the child imitate. Reinforce the child's appropriate responses.

# Points to 4-5 body parts, Points to 5 or more pictures Age: 14-16 months



- Nowing the names of body parts is the basic and more interesting activity for the children.
- Generally children learn some of the names of body parts without being taught. These words are used in daily activities as a routine.

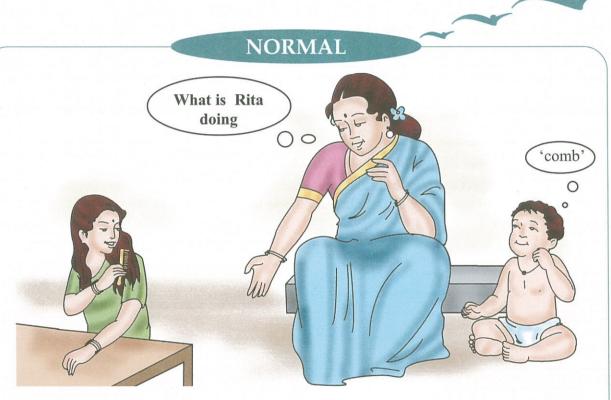
Eg: Wash your hand. Blow your nose etc.



- Increase in vocabulary
- Functional communication continues

- Take a doll show the child by labeling the gross body parts like hands, legs, head, tummy and hair.
- Talk to the child about their functions in a funny activity to make it interesting to the child.
- Then you name any body part that you have talked about, and expect the child to point or touch.
- Repeat these same activities with other person like spouse or other children, and then let the child point or show his own body parts when asked.
- Show him the pictures in the book or photograph of the child or mother or any one else's.
- When the child can recognize the objects by name, Show him the picture which has the items that he knows and let the child point to them, or you can match the object with the pictures.
- Remove the object and let the child point to the picture slowly increase the number of items he can point to, by increasing the number of objects he knows.

### Responds to some question forms What-doing, where-object Age: 16-18 months



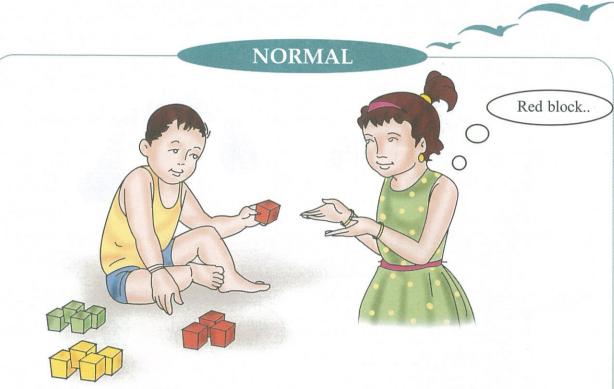
- → By the age of 18months the child acquires a number of words including nouns, verbs.
- •• If you show a child an ongoing activity like a girl combing hair and ask the child, what the girl is doing, the child may say, 'comb' or 'combing' or 'hair' to indicate that the girl is combing her hair

### IMPORTANCE

- ◆ Increase in vocabulary up to 50 words
- Knows usage of objects
- Semantic intentions develop

- If the child is unable to express, then you can provide, an answer as a model for the child to learn.
- Ask the child 'where' question about the objects in his room or environment. Like "Where is the book", the child may point to the book on the table or say 'table'.
- Show the child a picture book and ask questions like the above

### Produces approximately 50 words Age: 16-18 months



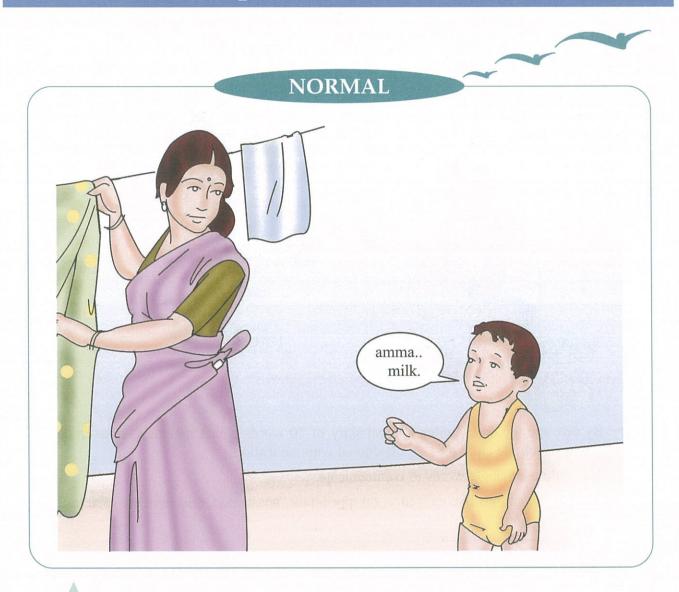
- By this age the child builds a vocabulary of 50 words which include various nouns, verbs, which the child uses for functional communication.
- The child uses single words to communicate.
- Semantic intentions like existence, disappearance, possession, rejection, are used in the child's language.

# IMPORTANCE.

- → Improving expressive skills
- Increase in vocabulary
- Use of functional communication

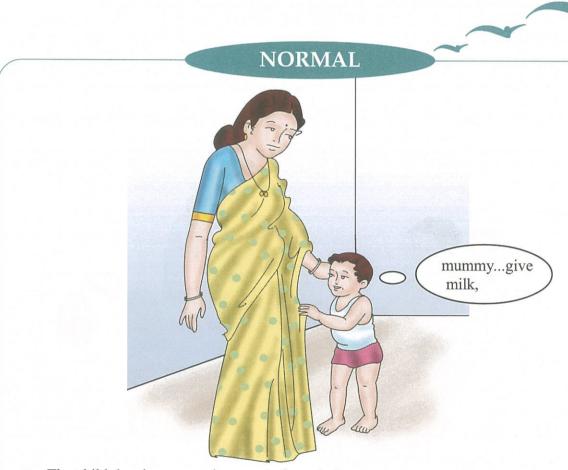
- Take real objects wherever possible and/or pictures, start introducing each object at a time.
- Describe about the object, talk about its shape, color, use.
- Once the child has developed the concept, introduce more number of objects to increase the child's vocabulary.
- Create situations where the child can initiate a conversation using these words.

# Speaks in two-words combination phrases Age: 19-24 months



- Once the child learns number of words, then he can be taught to combine these words to form a phrase of 2 words.
- Provide the child an opportunity to say or ask, and assist the child by giving a model of a phrase and let the child repeat after you.
  - Eg: When the child wants a ball the child might say 'ball' and point to it.
- The appropriate model would be like: by saying "oh" you want this ball.
- → Then say "give ball" or "Mummy ball", let the child repeat.
- Gradually see that the child says the phrase to fulfill the need and does not compensate with gesture. Reinforce him appropriately.

# Simple sentences and 3 word sentences Age: 19-24 months



- The child develops a good amount of vocabulary.
- Now the child will be able to communicate in 3 Word sentences which include the subject, object and a verb.

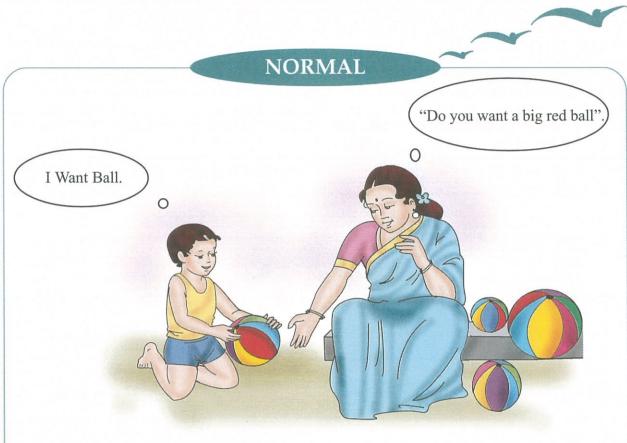
# 'IMPORTANCE

- Rapid increase in vocabulary
- Formal symbolic communication starts
- Development of sentence structure takes place

- At this age the child will be able to respond to simple verbal questions.

  Eg: If the child says mummy milk, you may expand the sentence by saying mummy give milk.
- Use various language stimulation techniques like self talk, parallel talk, modeling, and expansion. **Eg:** If the child says mummy water, you may expand the sentence by saying mummy give water

# Produces 4-5 word sentences Age: 25-36 months



- •• In general, children after crossing 2 years, can speak in a sentence of not less than 4 words.
- Combine these words to produce a variety of grammatical constructions.
- Questions, commands as well as statements are used.

# IMPORTANCE.

- Increase in social communication.
- Help in syntax development.
- → Help in development of pragmatics.

#### Intervention:

When child utters a sentence of 3 or 4 words, you expand the sentence and extend it like: **Eg:** If the child says "I want a ball" you can Expand and say Do you want a Big Red Ball.?

# Begins to use complex sentences Age: 25-36 months

### NORMAL

I am hungry and I Want Ice-cream, now

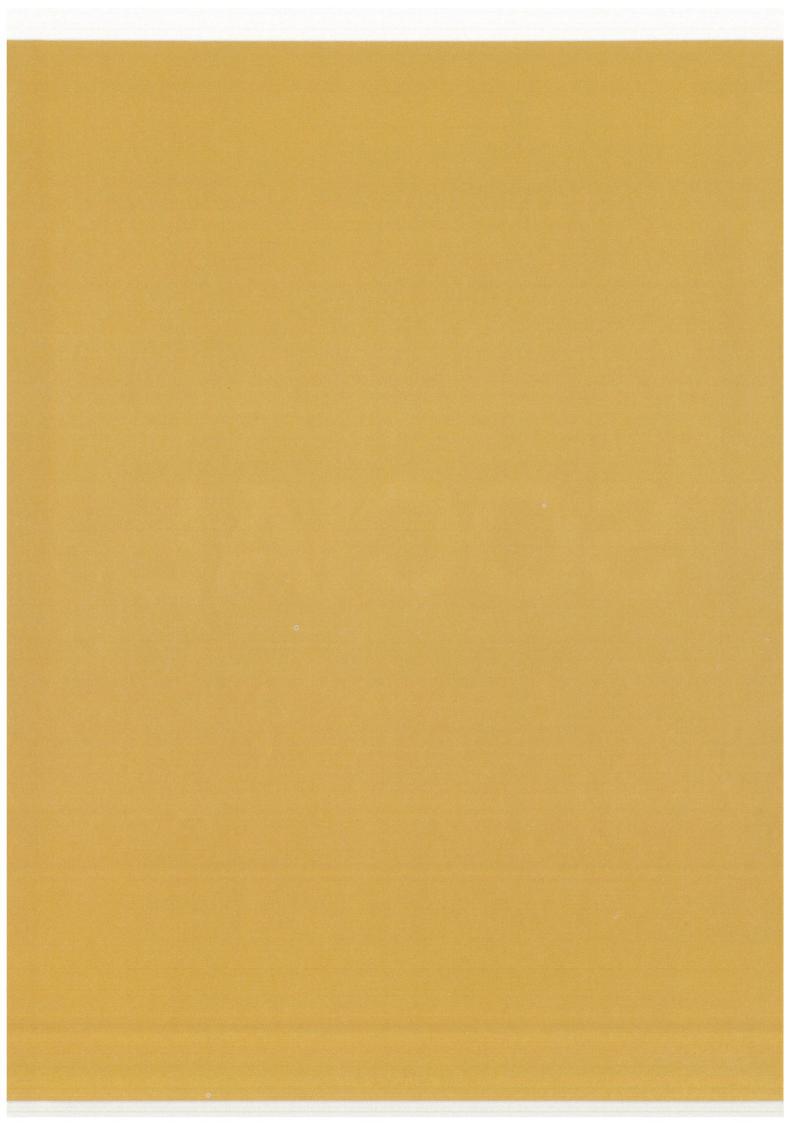


- Child starts using negation and question forms between the age of 2 ½ to 3 years.
- Vocabulary increases due to increased experience.
- From the stage of simple sentences child slowly starts using complex sentences.

- Rudimentary conversational skills are seen.
- Syntax development continues.
- Increase in semantic development.
- Pragmatic development continues.

- The child can learn to say complex sentences, by providing a model to speak.
- Language stimulation techniques self talk, parallel talk can be used.
- Use complex sentences, simple corrections in the child's utterances.
- •• Modeling of self correction where the parent uses a simple sentence first and then corrects herself by saying complex sentence.

# SOCIAL





Infants seem to have a natural tendency to be social participants.

Not only do newborns show preferences for their mothers' voices shortly after birth.

They are capable of many social responses. For example, a newborn will turn his head towards the sound of a human voice and actively search for its source, attend to and show preference for a voice with a female pitch, and pause regularly in his sucking pattern for human voices but not for taste of human milk over those of formula, water or sugar (Brazelton, 1976).

#### I). Definition of Socialization:

Socialization is the "process by which the newborn child is moulded into the culture.. and hence becomes an acceptable person in that society". (Smelser & Smelser, 1963).

Infants become socialized through interactions.

The crying, clinging behaviour of the baby must be eventually replaced by more mature forms of social behaviour.

Social competence refers to an infant's ability "to make use of environmental and personal resources to achieve a good developmental outcome". (Waters & Sroufe, 1983)

#### II). Milestones of Social development

Behaviour	Age (Months)
Knows mother by sight	1 - 2
Social smile	2 - 3
Social laughter	3 - 4
Notices and begins to interact with peers	3 - 6
Holds out arms to be held	5 - 6
Plays peek-a-boo	5 - 8
Shy with strangers	8 - 10
Plays pat-a-cake	9 - 10
Waves bye-bye	9 - 10
Gives a toy when asked	11 - 12
Negativism begins	18 - 24
Plays interactive games	24 - 30
Dresses self with supervision	30 - 36

A baby lies in his crib. His mother leans over the crib and smiles at him. The babies smiles back, thrashes about. What appears to be random thrashing motions by the baby are now seen to individual muscular motions that are in perfect synchrony with the syllables of the mother's speech. As William Condon has stated, "The neonate participates immediately and deeply in communication and is not at birth a social isolate." This is called interactional synchrony.

This phenomenon indicates that from the moment of birth infants are sociable, that sociability is inherent. Perhaps interactional synchrony is not a communicative but communicational. It demonstrates the kind of social rapport and togetherness that the newborn needs in order to develop social relationships.

#### III). Components of social development:

Infant communication: Infants communicate in a number of ways, active and passive, noisy and quiet, by vocalization, facial expression, and gesture.

- 1) Babyness: Babies have a special appeal. This cute babyness equips infants with a powerful means of attracting the nurturance they need. Babyness helps to ensure the infant's survival. It keeps adults nearby and interested in feeding, sheltering and stimulating their offspring. The baby talk and exaggerated facial expressions that parents direct toward their infants seem especially well suited to the infant's limited sensory abilities. The mutual attraction of infant and parent is powerful and, at least in part, biologically determined.
- 2) Gazing: babies also communicate with the people around them by gazing. From the time they are born infants can see things that are large and close up. When infants are held close, they can see their parents hold their infants at a distance that is well within the infant's visual window. The interesting face and the looks that the mother displays during feeding and playtime turn into excellent opportunities for forming social and emotional ties.

#### IV) DEVELOPMENTAL SEQUENCE:-

- At 6 weeks, infants can focus on the mother's eyes, with their own bright eyes wide open.
- At 3 months, infants become able to maintain eve contact with their mothers, to gaze into their eyes for several seconds, and the mother's feelings of attachment to the infant deepen.
- \* Mothers of blind children who do not maintain eye contact, have difficulty forming an attachment. They find their infants perplexing and unresponsive.

Thus gazing is an effective means by which the infant communicates with parents.

- 3) Vocalizing: Vocalizing is another means by which the infant communicates. For the first few months, the infant's vocal sounds are coos and gurgles, uttered after meals and naps, when the infant is relaxed and being held. Infants imitate the sounds they hear, and synchronizing their babbling with their parents' speech. The infant's vocalization is a means of communicating with parents.
- 4) Smiling: It is one of the child's earliest behaviours. Smiling is the most significant aspect of social development to occur in the first half-year of life.

#### Infants smiles have been categorized into two categories:

- Endogenous Exogenous

New borns sometimes are observed smiling while they are asleep. These smiles are called **endogenous**, **or spontaneous**, smiles because they are **passive** and **internally controlled**. They appear to be triggered by changes in the level of arousal affecting central nervous system activity. Endogenous smiles cannot be thought of as indicating any conscious awareness of happiness.

#### Developmental sequence :-

Within the **first week or after two weeks** after both, gentle stimulation such as high-pitched baby talk or blowing on the baby's stomach will elicit another type of smile. Such stimulation apparently increases the level of nervous system excitation or arousal. A tiny smile follows within 6-8 seconds as the baby relaxes. These stimuli are **exogenous** as they are triggered by sources of stimuli that are outside the infant. The first elicited smiles, like the spontaneous smiles, are only partial smiles limited to the corners of the mouth.

During the **second week of life**, infants begin to **smile when their eyes are open**. Such smiles usually occur only when the infant is sated with food, drowsy, and "glassy-eyed". The smiles may occur spontaneously or can be elicited by the caregiver's voice.

By the **third week of life**, babies begin to smile **when they are fully awake and attentive**. These smiles are **fuller** and more **expressive**. A nodding head accompanied by a high-pitched voice is a more potent stimulus for eliciting smiling at this age than a voice alone.

In the 4<sup>th</sup> or 5<sup>th</sup> week infants smile in response to silent moving faces, sudden appearance of objects and action games. At this stage sights are more effective than sounds in evoking smiles.

According to Wolff (1963) the infant's first smile in response to a human voice, which occurs around 3-4 weeks of age, to be the beginning of social smiling.

Between 3-6 months of age, infants become more discriminating in their smiling behaviour.

Apparently the development of smiling is related to the infant's growing **cognitive awareness** and sophistication.

5) Laughter: infants typically laugh between 6 weeks and 3 months of age.

#### Developmental sequence :-

At first they laugh only in response to physical stimulation such as tickling or to intense sounds.

During the **second 6 months of life**, infants laugh more **at visual and social stimuli**. Interactions such as peek-a-boo games or the mother shaking her hair.

During the **second year of life**, infants begin to laugh at things they can participate in, such as reaching for a protruding tongue. Babies thus progress developmentally from laughter produced from physical stimulation to laughter based on **cognitive interpretations**. Development of laughter marks an important transaction between infants and their environment, that it **helps babies to discharge tension** in situations which otherwise might be upsetting, and thus there is "an important tie between cognitive development and emotional growth and expression".

**6) Crying:** Crying has been defined as the highest state of arousal produced by nervous system excitation triggered by some form of biological threat.. such as hunger, pain, sickness or insult, or individual differences in threshold for stimulation, having uninterrupted sleep. Crying begins as a reflex response that has survival value. It is designed to elicit nurturing and protective responses from the baby's caregivers

#### Developmental sequence :-

The amount of crying typically increases until about 6 weeks of age, followed by a gradual decline as the infant gets older. A certain amount of crying is necessary for the infants' behavioural organization and normal physiological functioning.

Socially, the functional significance of crying changes with age. The **first 6 months** they cry to attract attention so that their **physical and psychological needs** are met.

Crying is also one way an infant tells a caregiver that it wants to be alone. Crying may be used as a **means of releasing energy or tension**. However, there are periods when infants cry for no apparent reason.

Some of the young infant's unexplained crying may be due to maturational changes in the brain that occur between 3-12 weeks of age.

Crying, like smiling, progresses from internal to external sources of stimulation and control.

During the newborn period, infants cry primarily because they are hungry, too hot or cold, or otherwise physically uncomfortable.

As they **get older**, infant cries can be traced to external stimuli such as **loud noises**, "**looming objects**", **frustration with play objects**, **fear of strangers**, **and the disappearance of the mother**. Crying thus gradually becomes more related to **cognitive and emotional functions** that to strictly physical demands.

7) Making faces and gestures: Another means by which infants communicate with others is by the gestures of their arms and legs and the expressions on their faces- their frowns and furrows, glares and grimaces. Even young infants' faces show expressions that in adults indicate pleasure and displeasure, anger and fear, joy, surprise, sorrow, and disgust.

#### **Mother-child Interaction:**

Parent- child relationships begin even before a child is born. Almost as soon as pregnancy is confirmed, parents form images of the child, images of what she or he will cope with this new human presence.

Frequently the social interaction between parent (or other caregiver) and infant involve a pattern of close coordination and team work in which each waits for the other to finish before beginning to respond. This pattern of closely coordinated interaction is called caregiver - infant synchrony.

Even infants only a few weeks old are able to maintain and break eye contact with their mothers' at regular intervals and to take turns with them in making sounds and body movements.

For the infant the initial socialization contacts made with the mother, who is the primary source of food comfort, and attention.

For most infants, the mother offers an early social and emotional experience that is both satisfying and rewarding. The close interaction that develops between the two also enables the infant to recognize the mother as someone separate and unique in an otherwise bewildering environment.

#### IV) Social behaviour with peers:

The socialization process involves interactions with the child's age mates, or peers. Young babies show considerable interest in other infants and in much the same ways they show interest in their parents: by gazing, smiling and cooing. Infants begin to interact with each other very early in life. Their interactions become increasingly social and more complex as their skills in other areas become more fully developed.

These interactions are more frequent and complex among infants who are acquainted with each other and who play in dyads rather than in a larger group. Infants interact more with peers when they are in a familiar setting than an unfamiliar place. The availability of toys and the type of toys available affect peer interactions.

Toddlers who are securely attached to their mothers are more effective in peer interactions. Socially competent infants typically have socially competent parents.

One's general outgoingness, social independence, and emotional investments in others may be traced to the outcome of these early social experiences.

Satisfaction of the hunger drive does not singly promote and nurture the infant's attachment for the mother. The attachments for the mother is promoted very much by the need to establish contact with something that can offer comfort and warmth.

#### V) The development of attachment:

Attachment is the affectionate tie that one person forms with another.

#### Stages of attachment formations:-

- 1) The **first stage**, encompassing the first two months of life, is called the **asocial period or preattachment stage**. During this time the infant is responsive to both human and inanimate features of their environment. Depending on what is stimulating or satisfying, infants will respond to a variety of social and nonsocial stimuli.
- 2) The second stage, indiscriminate attachment or attachment in the making, is characterized by infants' tendencies to generalize their attachment to all the people in the environment.
- The third stage is termed specific attachment or clear cut attachment. At about the age of 7 months and until approximately the first birthday, the infant' preference is directed toward a specific person, in most cases the mother.
- 4) Fourth stage is goal directed partnership. This stage begins during the infant's second year of life and gradually becomes more complex. At this time the child becomes increasingly able to predict his parents' behaviour toward the desired goal of attachment.

#### Forms of attachment (Ainsworth):

- Secure attachment
- Anxious resistant attachment
- Anxious avoidant attachment

### Stages of attachment behaviour:

S.No	Type of attachment behaviour	Approximate Age (weeks)	Infant activitiy
1.	Differential crying	12 	Cries when held by person othethan mother
2.	Differential smiling	32	Smiles directed more readily to mother than others
3.	Differential vocalization	20	Vocalizes more readily with mother than others
4.	visual-Motor orientation	25 The state of th	Attempts to visually follow mother when away from her
5.	Following	25	Follows mother by crawling
6.	Scrambling	30	Climbs over mother and explores her person
7.	Burying the face	30	Buries face in mother's lap
8.	Exploration from mother as a base	33	Leaves mother's side to explore, but returns periodically
9.	Clinging		Clings when strangers are present, in times of illness
10.	Lifting arms in greeting	22	Raises arms, smiles, and vocalizes after maternal absences
11.	Clapping hands in greeting	40	Hands clapped upon mother's return after absence
12.	Approach through	30	Walking to mother after she returns from an absence

(Adapted from Ainsworth, 1964)

#### Attachment and Social development:

Children who find their mother's behaviour most predictable and reliable in terms of providing a secure base from which to explore may be more capable of developing new social relationships later.

#### Characteristics of securely attached infants:

- 1. More likely to explore their environments
- 2. Likelihood to be peer leaders
- 3. Involved in a social manner
- 4. Actively engaged in their environments
- 5. Attract the attention of others
- 6. Demonstrate greater personal competence and peer approval.
- Securely attached infants will become mature adults and that without such security children will grow up to be anxious, over dependent, and immature.

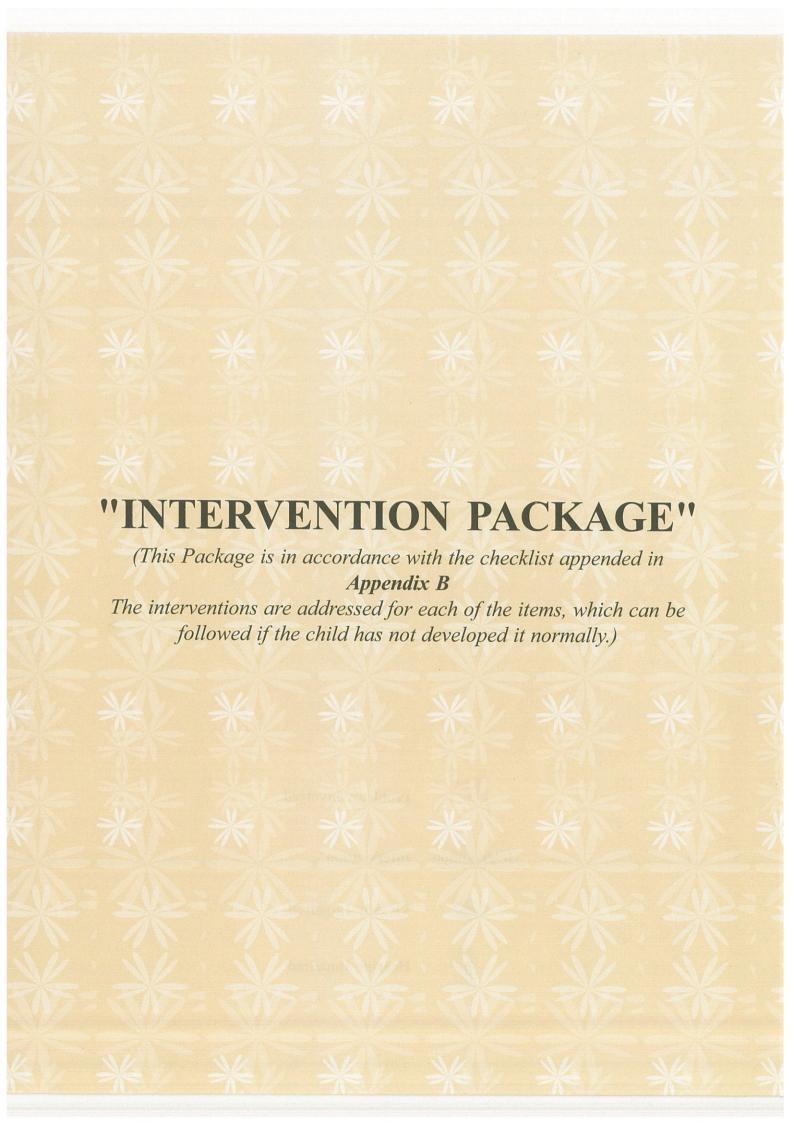
#### VI) Abilities an infant must eventually develop to become socially competent:

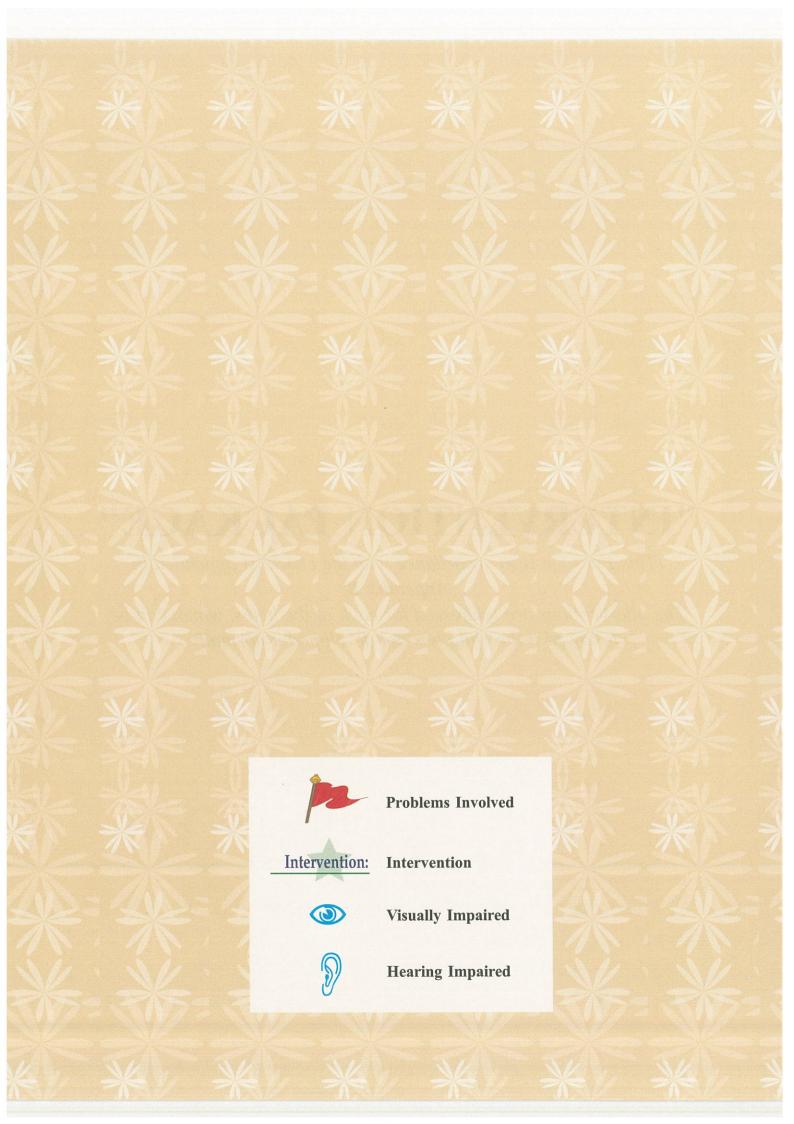
- Getting and holding the attention of adults in socially acceptable ways.
- Expressing affection and annoyance when appropriate.
- Using adults as resources if a task is too difficult to accomplish alone.
- Showing pride in personal accomplishments.
- Engaging in role-play and make-believe activities.
- Leading and following peers.
- Competing with peers.

#### VII) Activities to foster social development:

- Adult role models- Parents and other adults model positive, responsible behavior. Family sup port- Family life provides high levels of love and support.
- Positive family communication- Parents communicate with toddlers in positive ways. Parents respond to toddlers in a reasonable amount of time and respect their needs.
- •• Other adult relationships- Parents have support from three or more adults and ask for help when needed. Toddlers receive additional love and comfort from at least one adult other than their parents.
- Caring neighborhood- Toddlers experience caring neighbors.
- Caring out-of-home climate- Toddlers are in caring, encouraging environments outside the home.
- Parent involvement in out-of-home situations- Parents are actively involved in helping toddlers succeed in situations outside the home. Parents communicate toddlers' needs to caretakers outside the homes.
- Community values children- The family places toddlers at the center of family life and recognizes the need to set limits for toddlers. Other adults in the community value and appreciate toddlers.

- Children are given useful roles- The family involves toddlers in family life.
- Adult role models- Parents and other adults model positive, responsible behavior.
- Stimulating activity- Parents encourage toddlers to explore and provide stimulating toys that match toddlers' emerging skills. Parents are sensitive to toddlers' dispositions, preferences, and level of development.
- **Positive peer observation-** Toddlers observe siblings and other children interacting in positive ways. They have opportunities to interact with children of various ages.
- •• Interpersonal observation- Parents model positive, constructive interactions with other people. Parents accept and are responsive to how toddlers use actions and words to express their feelings, seeing those expressions as cues to toddlers' needs.
- Family values healthy lifestyle- Parents love children, setting the foundation for toddlers to develop healthy attitudes and beliefs about relationships. Parents model, monitor, and teach the importance of good health habits, and provide good nutritional choices and adequate rest and playtime.
- Creative activities- Parents expose toddlers to music, art, or other creative age-appropriate activities each day.
- •• Positive, supervised time at home- Parents supervise toddlers at all times and provide predictable, enjoyable routines at home.
- •• Family boundaries- Parents are aware of toddlers' preferences and adapt the environment to suit toddlers' needs. Parents set age-appropriate limits for toddlers.
- Appropriate expectations for growth- Parents have realistic expectations for toddlers' development at this age. Parents encourage development without pushing toddlers beyond their own pace.
- ► Family models high self-esteem- Parents create an environment where toddlers can develop positive self-esteem, giving toddlers appropriate, positive feedback and reinforcement about their skills and competencies.





## SOCIAL

ITEM

1

Looks at a persons face for a moment Age: 0-3 months

Area: Attachment

#### NORMAL



Babies also communicate with the people around them by gazing. From the time they are born infants can see things that are large and close up. When infants are held close, they can see their parents hold their infants at a distance that is well within the infant's visual window. The interesting face and the looks that the mother displays during feeding and playtime turn into excellent opportunities for forming social and emotional ties.



Developing social relationships is one of the important things infant does. Learning to look at a persons face helps the child in building life long relationships.

- Seat the child and enable him to view the surroundings. Walk across his line of vision and watch to see if the child follows your moment.
- Talk to the child and smile or use a noisemaker during activity to stimulate looking behaviour.
- Get the child's attention by talking and smiling while very close to the child. Gradually move across child's line of vision, while trying to maintain eye contact. Keep praising the child. Move further away as the child gains proficiency at following movement.
- ◆ Dangle an object in front of the child and talk to him at the same time.
- Always smile and talk calmly to the child when approaching her to encourage quieting as a social response.

# Smiles or makes sounds when touched/talked to / or on seeing or hearing a voice Age: 0-3 months

Area: Attachment

#### **NORMAL**



**Development: Smiling:** It is one of the child's earliest behaviours. Smiling is the most significant aspect of social development to occur in the first half -year of life. Infants smiles have been categorized into two categories:

- Endogenous
- 2. Exogenous

New born can sometimes to observed smiling while they are asleep. These smiles are called **endogenous**, **or spontaneous**, smiles because they are **passive** and **internally controlled**. They appear to be triggered by changes in the level of arousal affecting central nervous system activity. Endogenous smiles cannot be thought of as indicating any conscious awareness of happiness.

Within the **first week or after two weeks** after birth, gentle stimulation such as high-pitched baby talk or blowing on the baby's stomach will elicit another type of smile. Such stimulation apparently increases the level of nervous system excitation or arousal. A tiny smile follows within 6-8 seconds as the baby relaxes. These stimuli are **exogenous** as they are triggered by sources of stimuli that are outside the infant. The first elicited smiles, like the spontaneous smiles, are only partial smiles limited to the corners of the mouth.

During the **second week of life**, infants begin to **smile when their eyes are open**. Such smiles usually occur only when the infant is seated with food, drowsy, and "glassy-eyed". The smiles may occur spontaneously or can be elicited by the caregiver's voice.

By the **third week of life**, babies begin to smile **when they are fully awake and attentive**. These smiles are **fuller** and more **expressive**. A nodding head accompanied by a high-pitched voice is a more potent stimulus for eliciting smiling at this age than a voice alone.

In the 4th or 5th week infants smile in response to silent moving faces, sudden appearance of objects and action games. At this stage sights are more effective than sounds in evoking smiles.

According to Wolff (1963) the infant's first smile in response to a human voice, which occurs around 3-4 weeks of age, to be the beginning of social smiling.

**Between 3-6 months of age**, infants become more discriminating in their smiling behaviour. Apparently the development of smiling is related to the infant's growing **cognitive awareness** and sophistication.

## IMPORTANCE

These sounds are the child's first attempts at using his voice. As the child learns to make new sounds and realizes he is getting lots of attention, he will do this more.

#### Intervention:

- As the child is being fed, diapered, and held, talk softly and smile often.
- Gently tickle the stomach; this will help evoke a smile.
- When the child smiles, respond by smiling and laughing back.
- Greet child with a smile whenever picking him up after naps, when going to some place etc.
- When you walk by the child as he is sitting or lying; stop; to talk to him gently tap his nose, smile at him saying; "Do you have a smile or "come on, you can smile,"
- Always smile when approaching the child. Establish eye contact with her and smile. Reward her when she talks or smiles back.

#### Modification:

Visually impaired: Talk to the child often, using a pleasant voice. Sing to her. When the child vocalizes with cooing and other pleasant sounds, imitate the child.

### Kicks legs and arms in play Age: 0-3 months



Infants move their arms and legs around in an uncoordinated, random fashion. Even in the utero, the child moves arms and legs by kicking and thrusting. This random, uncoordinated limb movement continues after birth and becomes more controlled and purposeful as he matures. Much of the child's early movement is random reflex movement. At this point, the infant is not really aware that arms and legs are a part of the infant and that he can control them. During kicking and flailing, the infant experiences the internal sensations of the body movements.



Motor integration is the key to later mobility. The child must first learn how to use his limbs and body together, so he can later control his movements to roll, crawl, sit up etc.

- Place the child on his or her back, so that arms are free to move. Hold up a toy near the child, shaking it slightly, if needed, to catch his or her attention. As the child moves his or her arms, move the object closer, so that the child can touch it.
- If the child looks at the object but does not initiate any arms or hand movement, provide occa sional physical prompts. Try different objects to find those that might be interesting Select toys that also make an interesting sound, to help attract the child's attention

## Smiles back at a smiling face Age: 3-6 months

Area: Attachment

#### **NORMAL**



Infants on watching the adult smile discovers that he can do that too and gets the adults attention. When born, infants can see within an 8-12 inches range. Hence caregivers need to come into the baby's viewing range when interacting. This forms the beginning of social interaction.



This is the infants first attempt at communicating feelings to the caregiver. By doing this over and over, the child displays likes and dislikes and shows an awareness of being able to influence interactions.

#### Intervention:

- Always smile when approaching the child. Establish eye contact with her and smile. Reward the child when the smiles back
- Tickle the child to evoke a smile and then smile back at the child.

#### **Modifications:**

(i) Visually impaired: Talk to the child often using a pleasant voice. Sing to the child. When the child vocalizes with cooing and other pleasant sounds, imitate the child

## Laughs when stimulated (tickling, bouncing, vocal play) Age: 3-6 months

Area: Social Play

#### **NORMAL**



Infants typically laugh between 6 weeks and 3 months of age.

At first they laugh only in response to physical stimulation such as tickling or to intense sounds.

During the second 6 months of life, infants laugh more at visual and social stimuli. Interactions such as peek-a-boo games or the mother shaking the child's hair will stimulate the child



Helps in understanding social cues and making appropriate social responses.

#### Intervention:

- Tickle the child gently on the child's ribs, feet, neck etc. Laugh and talk in a playful manner. Repeat when the child laughs.
- Bounce the child in your arms or on your knee. Repeat when the child laughs.
- Hold the child's face close to your face and blow on him, whisper in his ear, vocalize sounds such as ba-ba- ba or the tickle sound. Repeat when the child laughs.

#### **Modifications:**



Hearing impaired: Continue to reward the child when he responds with positive facial or vocal expressions.



Motorically impaired: Do not use tickling or bouncing activities if the child tends to stiffen in extension (Spasticity).



Wisually impaired: Do not continue the bouncing activity if the child exhibits fear.

### Pulls cloth over face in play Age: 3-6 months

Area: Social Play

#### **NORMAL**



The infant is learning that his movements and antics assist him in getting attention from adults around him. Once random, now his movement patterns form on watching the adults around him and doing what they do. Games like peek-a-boo or clapping hands are things that he has seen the adult do to get the infants attention, hence the infant now does these things to get the attention of the adult. This is all part of turn taking and imitation on the part of the child. The child is imitating games he has learned from his caregivers. This is an important first step in his communicating and trying to engage adults in an activity he initiates on his own.

## IMPORTANCE.

Helps in communicating with others through play activities.

#### Intervention:

- Place a soft cloth over the child's face. Help him to remove cloth with his hand. Say peek-a-boo as you do this and reward him with a smile.
- Place a cloth over the child's face and say peek-a-boo. Child should remove the cloth on his own. Now help the child to replace the cloth as he starts to play pee-a-boo.

#### **Modifications:**



**Motorically Impaired:** If the child cannot use his hands to remove a cloth, support the child seated on your lap so that he can just move his head to remove the cloth.

## Turns to person talking Age: 3-6 months

Area: Social Play

#### **NORMAL**



One of the most important things that happen to babies is their growing awareness of the people around them and what part those people play in their life. Attachment and bonding to significant caregivers helps the child feel secure, encourages social interaction, builds social skills, and is the basis for all early learning. The period between 2-7 months of age, is the beginning capacity for human attachment referred as "beginning relatedness". This beginning relatedness to others is based on the infant's ability to experience and express affect and to use multiple sensory modalities in a reciprocal manner during his or her interactions. Establishing a primary attachment with a caregiver occurs parallel to the infant's growing interest in his or her animate world. Due to these events, the infant begins to participate more frequently in more complex communication patterns.

## IMPORTANCE

This alerts the caregiver to the baby's ability to hear and respond to sound. Hearing is critical to later language development and thus a baby's response to sound or voice is a good indicator of how well the child hears.

Even though the infant cannot understand what someone is saying to her, she is very interested in communication and is actually learning a great deal just from watching a speaker talk. She is learning that sounds come out when someone moves their mouth, that what the child sees the person doing is associated with sound, and eventually that these sounds are meant to communicate thoughts and feelings.

#### Intervention:

- Call the child's name when you enter the room. When the child turns toward you reward him be smiling and hugging.
- Ring a bell or shake a noisemaker from different parts of the room, being careful to stay out of the child's range of vision. Reward him when he locates the sound by smiling or hugging him.
- Watch to see if the child turns his head to locate household sounds such as the radio, television, telephone, or knocking at the door.

#### **Modifications:**



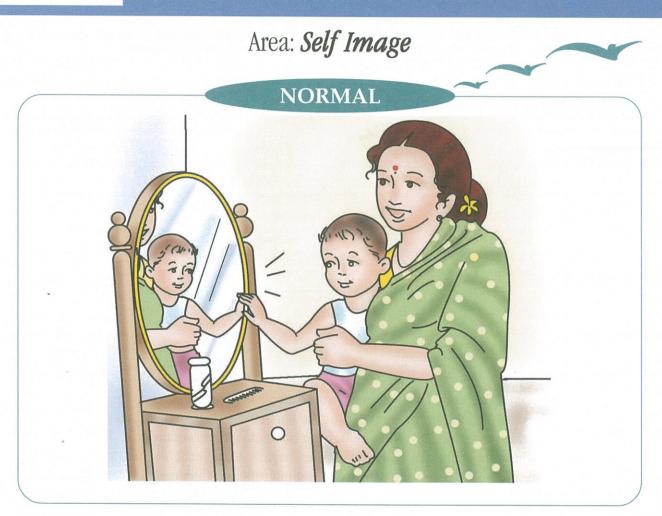
Motorically impaired: If the child has cerebral palsy and/or a tendency to keep his head turned to one side, try to position him in the following ways before you have someone else call his name, ring a bell etc.

- a). Sit on the floor with your knees bent. Have the child's back resting on your thighs while you bend his knees to his chest and cross his arms over his chest and knees.
- b). Have the child sit facing forward with his legs straddling one of your knees. Make sure both his arms are brought forward and that his head is facing forward.
- c). Cradle the child in one of your arms and position him so that he must turn to look in the direction that he normally does not.



(Note: It is a like with the child does not benefit by turning his head to see an object, reward him for turning by giving him the object to touch and feel.

## Pats mirror image Age: 3-6 months



## IMPORTANCE

Helps in recognizing oneself and associating oneself to the images of oneself.

#### Intervention:

- When passing in front of a mirror, always point to the child's image and help him look at his image. Reward him with a hug when he smiles.
- Show the child his image in a mirror while she is sitting on your lap. Encourage her to smile by tickling her. Reward her with a hug.

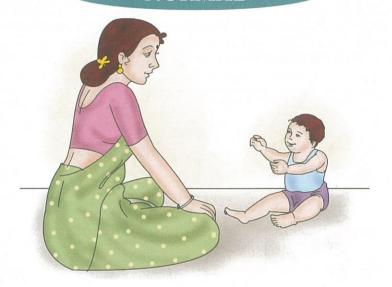
#### **Modifications:**

Visually impaired: Help the child become aware of her own face and other faces by moving her hand across your face and then hers. Name the facial parts while doing this. Change your expression so that she can feel a smile or a surprised look.

### Stretches arms to be picked up Age: 3-6 months

Area: Social Play

#### **NORMAL**



In the fourth month, babies make anticipatory adjustments to being lifted, they show selective attention to faces, they look in the direction of the person who leaves them, they smile at a person who speaks to them, they show delight in personal attention, and they laugh when played with. Throughout the day's activities, the infant's experience is monitored by the parent who interprets and assigns an affective meaning to it and then reacts.

The infant begins to differentiate the parent's actions, how the mother acts as this relates to the infant's state of arousal or his or her bodily experience, and then incorporates this into his or her working models. The mother responds to what she thinks and feels about what she hears and sees the baby doing.

The baby perceives her actions in the context of his or her needs and bodily experience and then incorporates this into his or her subjective bodily experience. This patterned emotional signaling system is dependent on both partners' emotional availability, which is essential for the infant's ongoing development. In the fourth month, babies make anticipatory adjustments to being lifted up.



Formation of emotional bonds with others.

The child stretches his ther hands indicating to the person that he wants to be picked up.

This is a form of communication through gestures which forms an integral part of social development.

#### Intervention:

- Encourage the child to reach out with his arms as you hold your arms to him and ask is he wants to come to you.
- 2. Encourage all of the familiar persons to hold their arms to the child and encourage the child to do the same.
- 3. If child seeks adult attention, stand in front of child with arms out reached and have another person hold child's arms out from behind. Parent should praise child as he reaches out (even with this help). Continue to cue child by touching his arms if necessary.
- When picking the child up, first hold him gently by the hands, then support him under the arm
- Encourage the child to reach toward you by holding your arms out grasping his hands while he lies on his back.
- After the child grasps your hands firmly, pull him slowly up to a sitting position. (This activity should not be used until the child has enough head control to keep his head from dropping back very far).

#### **Modifications:**

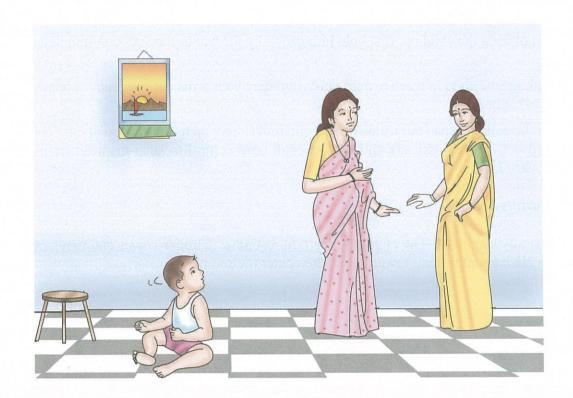


Visually impaired: The child will learn to recognize familiar voices and may responds by vocalizing and turning toward you when enter the room.

## Turns immediately to mother's voice across the room Age: 3-7 months

Area: Social Play

#### **NORMAL**



Infants are born with the sensory capacity to hear distinction between sounds. Within a few days after birth, infants are responsive to speech and other sounds resembling the human voice.

They prefer female voices at the time they are born. Within a few weeks they can discriminate between their mother's voice and other voices. This indicates that the infant is able to recognize the mother by appearance and also by voice. This behaviour also denotes the attachment pattern of the child.

The child begins to make an emotional bonding with the mother by looking at the mother, following the mother's movements and recognizing the mother's voice. Babies explore their world through their senses and one of the most important senses for a young infant is hearing. Through hearing, the baby can learn to discriminate between people, objects and begin to recognize his mother or primary caregivers voice from those of other family members and friends.



The child is beginning to understand how well to use all his senses. This helps the child identify his caregiver and later distinguish caregivers from strangers. It helps in attachment formation.

#### Intervention:

- Call the child's name when you enter the room. When the child turns toward you reward him by smiling, hugging, and kissing.
- Ring a bell or shake a noise maker from different parts of the room, being careful to stay out of the child's range of vision. Reward him when he locates the sound by smiling or hugging him.
- Watch to see if the child turns his head to locate household sounds, such as the radio, television, or knocking at the door.

#### **Modifications:**



**Motorically impaired:** If the child has cerebral palsy and/or a tendency to keep his head turned to one side, try to position him in the following ways before you have someone else call his name, ring a bell, etc.

- a). Sit on the floor with your knees bent. Have the child's back resting on your thighs while you bend his knees to his chest and cross his arms over his chest and knees.
- b). Have the child sit facing forward with his legs straddling one of your knees. Make sure both his arms are brought forward and that his head is facing forward.
- c). Cradle the child in one of your arms and position him so that he must turn to look in the direction that he normally does not.



**Visually impaired:** As the child does not benefit by turning his head to see an object, reward him for turning by giving him the object to touch and feel.

## Laughs when watching others play peek-a-boo Age: 6-9 months

Area: Social Play

#### NORMAL

The development of pleasurable feelings in young infants is expressed mainly in smiling and laughter. At the age of 6-12 months, infants laugh more at visual and social stimuli. Interactions such as peek-a-boo games or the mother making funny grimaces elicit laughter. During the 2<sup>nd</sup> year of life, infants begin to laugh at things they can participate in activities such as reaching for a protruding tongue or pulling the cloth from the face of adult. Infants thus progress developmentally from laughter produced from physical stimulation to laughter based on cognitive interpretation.



## MPORTANC

Helps in initiating social contacts.

#### Intervention:

- Play peek-a-boo and action games in front of the child, encouraging the child to participate.
- Use a cloth to cover the child's face and pull it off, saying where is the child? When the child has experienced this a number of times, he/she will volunteer to uncover his /her own face.
- Cover your face with a cloth and encourage the child to find you. Reward the child with a hug.

#### **Modifications:**



Visually impaired: Always manipulate the child through the movements of action games. Peeka-boo may be played in the form of hide-and-seek where the child is required to turn toward the caregiver to the h iding place when called. Laugh and reward the child when he/she laughs.

### Shows toys held in hand Age: 6-9 months

Area: Social Play

#### NORMAL



The first real indication that babies notice another baby occurs between the ages of 4 and 5 months when they smile at another baby or show an interest in the baby's cries, Friendly contacts between babies begin usually between 6 to 8 months and consist of looking, reaching out, and touching another baby.

Between 9-13 months, babies explore other babies by imitating the behaviour and vocalizations of other babies, and show for the first time cooperative use of toys. When a toy is taken away by another baby, it is usual for babies to become angry.

Social reactions towards babies and children develop rapidly during the second year. From the thirteenth to eighteenth months, babies smile and laugh in imitation of other babies. They begin to exchange play materials as a means of establishing relationships with peers.



Helps in relating to peers, communication through gestures. Enables the child to express his emotions through gestures.

#### Intervention:

- When the child is playing with a toy, hold your hand out and tell him to show the toy to you. If he shows the ball but refuses to give it to you, move on to the next activity.
- First ask the child to give you something, then hold out your hand. Reward him by smiling and laughing when the child offers you the object even if he doesn't release it.

#### **Modifications:**

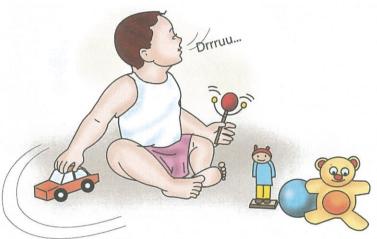


Visually Impaired child: When the child is playing with toys touch the child's hand and ask verbally ask the child to show you the toy.

Plays with toys/objects (rattles, mobiles tumbler, spoon) by looking at them, turning them over and manipulating its parts Age: 6-9 months

## Area: **Social Play**

#### **NORMAL**



Babies use their sense of touch to discover the different properties and textures of food and objects. Touching and manipulating things becomes an important way to get sensory information about the wide variety of things in their world.

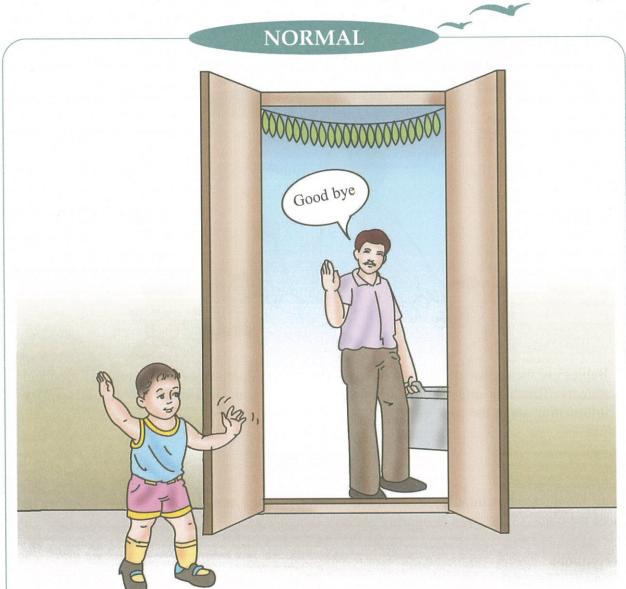
## IMPORTANCE

By exploration and manipulation, the infant derives pleasure and also gets essential sensory input about the objects. The child is figuring out how things work.

- Give the child a rattle or other toy. Move her hand into her line of vision. Reward the child with praise or a hug when shesets hands on the object and tries to manipulate it.
- Place an object in the child's hand and observe his or her reactions. If the child immediately drops it, give it back to him or her or try another toy of a different size, shape, weight, and so forth. Look for the child's fingers to curve around the object and to hold it 10 seconds or more.
- During routine care activities (e.g. diapering, eating, bathing, dressing), hand the various objects to hold.
- If the child does not hold objects, try placing your hand over his or her hand, assisting him or her in holding the object. Gradually reduce your assistance and watch for the child to continue holding the object independently.

## Claps hands and waves good bye Age: 9-12 months

Area: Social Play



By 7- 9 months of age, babies attempt to imitate speech sounds as well as simple acts and gestures.

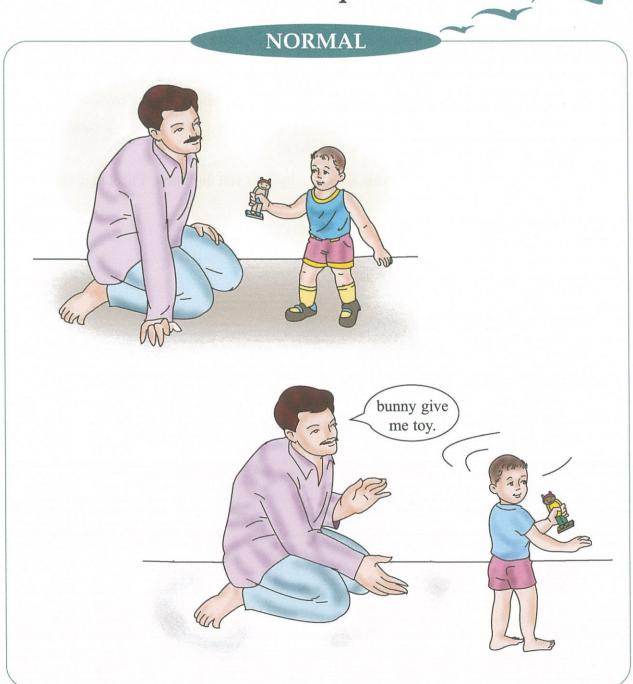


Helps in formation of cultivating appropriate social behaviours, comunication & socialiation.

- Have parent model clapping when child does something good, such as finishing a meal. Encourage child to initiate and physically help him.
- Say a rhyme or any action song. Model the actions and encourage the child to imitate the clapping sequences independently. Physically guide the child through the rest of the actions; gradually reduce help as he increases imitation skill. Reinforce with praise and clapping.
- Encourage the family to wave and say "bye-bye" when they leave the house.
- Take the child's hand and wave "bye-Bye" for him when someone says "bye-bye".
- Withdraw help gradually. When bye-bye is said, help him raise his hand, but let him wave" bye-bye". Reward success with hugs and praise.
- Play peek-a-boo, substituting waving and "bye-bye" as you disappear. Encourage child to do the same.

## Offers something to an adult but will not let go Age: 9-12 months

Area: Area Independence



IMPORTANCE

Helps the child in defending his own possessions, teaches the child to identify his belongings and regard them.

#### Intervention:

- During mealtime tell the child to give you a bite. Then take a small piece of her food. Offer her a bite from your plate.
- When the child is playing with a toy, hold your hand out and tell her to give the toy to you. Take the toy and give it back to her.
- First, ask the child to give you something, then hold out your hand. Reward her by giving the object back.

#### **Modifications:**



**Motiorically impaired:** Many spastic children do not develop voluntary release until quite late. Help the child to release the object by gently pushing her wrist downward.



**Visually impaired:** Manipulate the child through the action of release (letting go) many times by holding your hand around hers and taking the object from her hand.

## Hugs doll or animal Age: 9-12 months

Area: Social Play

#### **NORMAL**



Children learn to display emtions through expressions and actions.

## IMPORTANCE

Helps in forming emotional ties and also to express emotions.

- Show affection as a reward for good behaviour.
- Respond with affection when child comes to you for love and attention.
- If the child has a favorite crib toy (stuffed animal), demonstrate patting or hugging the toy and encourage the child to do the same.
- Model hugs, kisses to other family members when child is set to sleep. Ask the child to kiss the family members as an act of wishing them goodnight. Encourage him to repeat the act each time before he goes to sleep.
- Have the child imitate you as you hug the doll. Demonstrate affection on the doll and encourage the child to imitate.
- Hand the doll to the child and instruct him to take care of the doll: rock the doll to sleep, sing to your teddy bear, take the dolly to daddy.
- When the child is given good night hug and kiss, ask the child to hug and kiss dolly good night.

### Gives object on request Age: 9-12 months



## IMPORTANCE

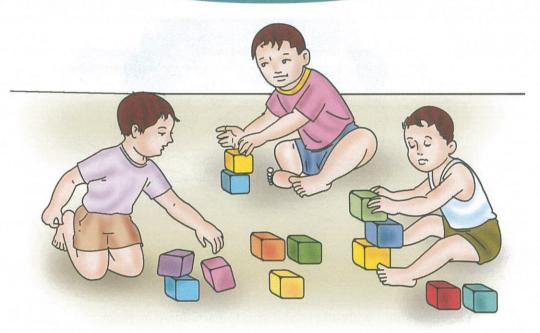
Helps the child to learn to share with others and also to participate in group activites Helps the child to relate to others.

- Show the child how to hand you the toy by guiding his hand towards you.
- Play with the child by giving and taking a preferred toy several times so the child will learn, he will get the toy back. In the beginning return the toy quickly and always keep it within his sight.
- When child is eating bits of finger food, dry cereal, etc. put one in his mouth; say, "give to —
  ". Then when he picks up a bite, open your mouth or hold out your hand, say, "give to -".
  Physically guide his hand if necessary. Laugh and praise him.
- Place an object in the child's hand. Give directions "give me" and hold out your hand to the child. Physically guide him through the action if necessary.
- Use a musical toy. Demonstrate how you will wind the toy if he gives it to you.
- •• Give the toy back to child occasionally so he realizes that a toy can be shared.
- Make a game of "give me" by holding out a small enticing object to the child, say" give me —
   to baby ". Clap hands and then ask, "Give me —". Physically guide him if necessary and clap and praise.

## Responds physically or vocally to other children Age: 12-15 months

Area: Social Play

#### **NORMAL**



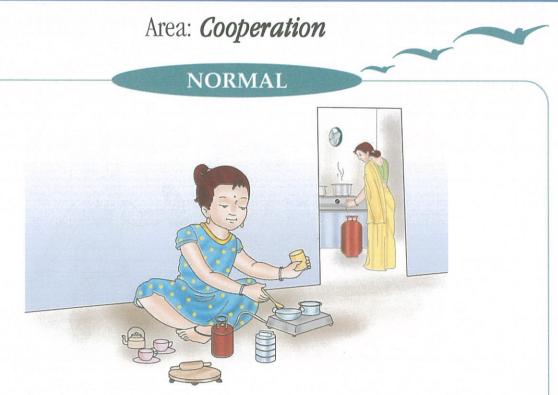
At 12 months children refrain from doing things in response to "no-no". From the age of 15 months, babies show an increasing interest in adults and a strong desire to be with them and imitate them.

## IMPORTANCE

Helps the child to follow group norms and related to peers. Improves simple communication which is essential tool for gaining acceptance in group.

- Provide adequate opputunities to the child to interact with age mates
- Involve the child in group activities give the child simple command to follow.
- ◆ Eg; handing over common objects

## Imitates every day activities and household tasks Age: 12-15 months



Through imitation of adults roles, the child learns to identify with adults as well as practice tasks she may later do for herself.

## IMPORTANCE

Helps in learing socially approved behaviour. Helps the child to follow stereotypical roles.

- Through play activities, teach the child the placement of household items.
- Encourage the child to pick up and put away toys in large box.
- Give the child things to carry for you and show him where they are to be put.
- Praise the child when he helps or attempts to help.
- Encourage the child to help with tasks after he is familiar with routines.
- When folding clothes or sorting clothes give the child wash cloth to shake and attempt to fold while you are working. Praise him for helping.
- When cleaning tubs or plastic containers let the child rinse after you have scored with cleanser.
- Encourage child to put unbreakable items like plastic items in sink. Praise him for helping.

### Offers toys to an adult and lets go Age: 12-15 months

Area: Cooperation

#### **NORMAL**



All children go through a stage when they are very possessive of their toys. However, as time goes on, the child watches others at play and learns that part of this art of playing with others involves sharing toys and cooperatively and interact positively with other outside the family circle.



Helps to interact with others, socialisation and teaches the child to follow rules.

#### Intervention:

- During meal time tell the child to give you a bite. Then take a small piece of her food. Offer her a bite from your plate.
- When the child is playing with a toy, hold your hand out and ask the child to give you the toy. Ask the toy and give it back to her.
- First, ask the child to give you something, then hold out your hand. Reward her by giving the object back.

#### **Modifications:**



**Motorically Impaired:** Many spastic children do not develop voluntary release until quite late. Help the child to release the object by gently pushing her wrist downward.



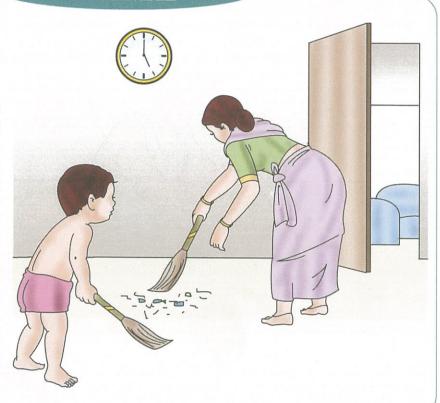
Visually impaired: Manipulate the child through the action of release (letting go) many times by holding your hand around hers and taking the object from her hand.

### Imitates Every day Activities Age: 12-15 months



#### **NORMAL**

Using the hands for activities of daily living is called manipulation. Ability to manipulate the environment, according to the needs and to satisfy our necessities is a very useful skill. Child learns to be independent, by practicing these skills. When the child is able to smoothly synchronize supination and pronation, flexion and extension of wrist, fingers, and elbows. They become proficient in manipulation.



## IMPORTANCE

#### Intervention:

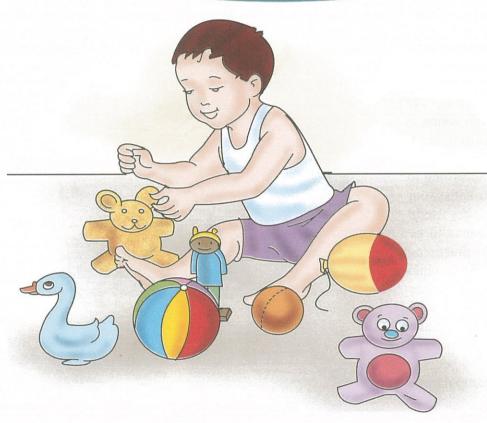
To train such other similar skills give child edibles which require unwrapping (piece of toffee in a paper). Have the child grasp zipper tab and pull zipper up and down. Demonstrate winding a wind up (keyed) toy. Help the child turn the handle of the key till she can do it on her own. Encourage child to remove plastic lids of containers and boxes.

To improve increasingly complex skill in manipulation. Show the child how to unbuckle an adult leather belt. Allow him to practice with the belt. Demonstrate unbuttoning on a dressing board/doll/child's own clothing. Let child practice. Start with large buttons and decrease size as the child gains skill in unbuttoning. Encourage the child to play with play dough. Show him how to roll it into snakes, squeeze it, roll it flat with rolling pin, or pat it flat with his hands. Encourage him to imitate and to experiment with new ways of handling the dough. Let child play with toy piano.

## Plays spontaneously with a variety of objects Age: 12-15 months

Area: Area Independence

#### **NORMAL**



This activity encourages the child to learn about her world through her sensory system. When the child plays with different materials, she is alerting her sensory system to see, feel and smell. This triggers messages to her brain, helping her learn about her surroundings.

## IMPORTANCE.

When children play with different objects, he is alerting messages t his brain, keeping him learn about the surroundings.

#### Intervention:

Put an open toy box or clothes basket filled with toys near the child. Show her the toys in it and tell her to get something to play with. When she is engrossed in an activity, leave the room for short periods. Reward her for playing by herself by making comments about what she is doing, or occasionally helping her with a toy she is unable to maniplate.

#### Note:

Keep a toy box in a consistent place and encourage the child to choose her own toys and play without being asked.

#### **Modifications:**



**Motorically impaired**: If the child is immobile tie light weight toys o her wrists and ankles and reward her when she attempts to play with them.



**Visually impaired:** Place the child in consistently defined areas throughout the day (toddler chair with encircling table, mat on the floor) and put the child's toys within reach of her hands and feet. Encourage the child to play by shaking a noise maker or tickling her with a soft toy.

## Exhibits several different actions on one toy Age: 12-15 months



#### **NORMAL**







Behavioral organization, and internalization characterize the period of 9-24 months of age, as the toddler develops a complex sense of self. The child's internal sensations and images become organized into mental representations. He or she is able to string together several related behaviours rather than the simple causal linking of two events The child internalizes the experiences in organized interrelated units within his or her emotional system. Because of these emotionally based internal representations, the child is able to take initiative in exploring his or her world. This capacity depends on the continuing maturation of the infant's central nervous system and the availability of appropriate experiences. The ability to integrate experience across the sensory, motor, and affective realms; to practice ideas through pretend play and language use; to consistently differentiate self from other; and to express emotions via language constitute the stage of representational capacity, differentiation, and consolidation.



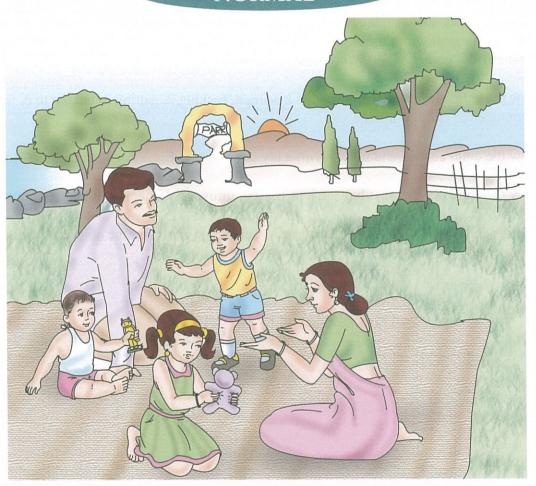
#### Intervention:

- Hold the toy in the visual field of the child. Manipulate it in a manner that will gain the child's hand, allowing him or her to bring it back into his or her visual field by him or herself.
- If the child does not bring the toy into his or her visual field, move his or her hand with the toy to midline or gently turn the child's head toward the hand with the toy. Wait to see if the child will then do it on his or her own.
- Show the child actions on a doll such as kissing it, rocking it, patting it, talking to it, feeding it. Encourage the child to imitate you.
- Show the child actions and noises with a toy car or truck. Encourage the child to imitate.
- Show the child actions on a ball such as rolling, throwing, bouncing. Encourage imitation.
- Give the child a baby bottle and a hair brush. Encourage her to use the objects on a doll instead of on herself.

### Plays near other children on occasions Age: 12-15 months

Area: Social Play

### NORMAL



The child is learning becoming curious about other children. This will lead to cooperative play and socialization skills which will help her get along with others in a variety of situations.

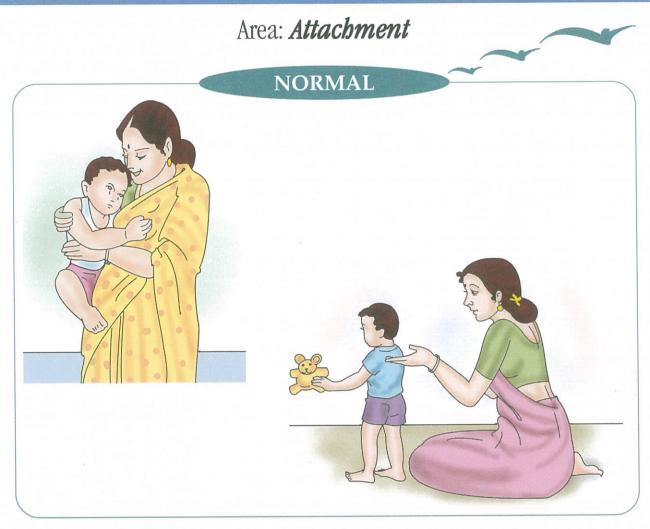


### Intervention:

Arrange for another child of about same age to play with the child. Arrange for the other child to do a task that you want the child to imitate, such as pushing cars, block building etc. Be sure there are several objects that are the same, like blocks, cars, beads.

- Arrange for another child to do some physical activity such as crawl under a chair and put a box over his head. Encourage the child to imitate.
- Have two children seated together, initially give directions to imitate movements child knows very well such as "Bye-bye". Then initiate new movements such as touching top of head, touching toes, bending over with head to floor as if ready to somersault and turning round and round. Reinforce with praise.
- → Play, Ring around the Rosy" with two children

## Sometimes clings to, sometimes pushes away an adult Age: 15-18 months





#### Intervention:

Take the child outside, to the market, parks, shopping center etc. Comfort the child when he / she clings o you, let her alone if she indicates she wants to do something by herself.

#### Note:

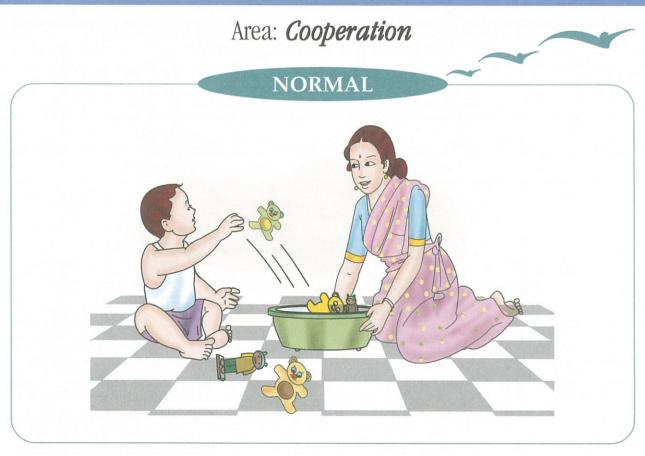
The child is beginning to realize that she can do things without the parent. This is an important step toward independence.

### Modifications:



**Motorically impaired:** If the child is not mobile, watch for other responses such as turning her head away or closing her eyes.

## Picks up and puts away toys on request Age: 15-18 months





### Intervention:

- Prepare the child for changing activities by saying, its almost time to put things away, or its time to go. After a few minutes, begin picking up a few toys and ask the child to help you. She may pick up only a few at first.
- After preparing the child, ask her to put all her toys away. Reward her by offering some reward when all the toys are put away, or with a hug.

### Modification:



**Motorically impaired:** If the child can use her upper extremities, encourage her to put small toys away.



**Visually Impaired:** Consistently use a low box that the child can easily reach. Help her to place the toys in the box. Decrease assistance as she gains skill.

### Imitates another child or adult Age: 15-18 months

Area: Social Play

### **NORMAL**



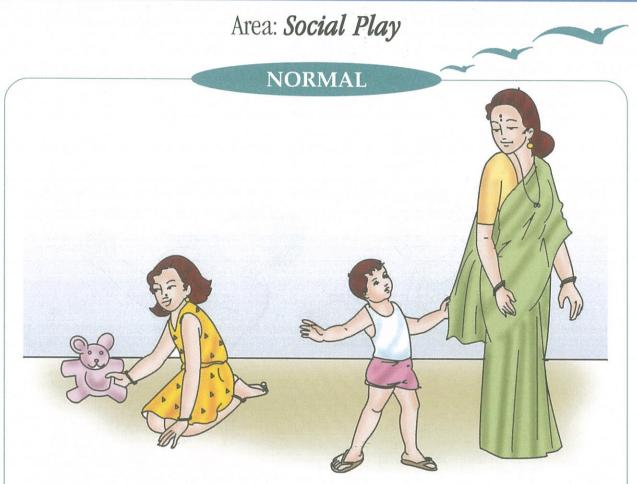
The child's ability to "read" signals and later imitate these signals is essential to emotional growth and expression as well as further communication between parent and child. By watching another persons expressions and actions, the child will comprehend and react accordingly. This non-verbal communication will be very useful in building a responsive relationship with care givers and others.



#### Intervention:

- Arrange for another child of about same age to play with the child. Arrange for the other child to do a task that you want the child to imitate, such as pushing cars, block building etc. Be sure there are several objects that are the same, like blocks, cars and beads.
- Arrange for another child to do some physical activity such as crawl under a chair and put a box over his head. Encourage child to imitate.
- Have two children seated together, initially give directions to imitate movements child knows very well such as "bye-bye". Then initiate new movements such as touching top of head, toucing toes, bending over with head to floor as if ready to somersault and turning round and round. Reinforce with praise.
- Play "Ring around the Rosy" with 2 children.

## Demands immediate gratification of needs Age: 21-24 months



**Development:** The infant learns that the adults around him gives him many things. Slowly he begins to learn that he cannot always do exactly what he wants to or get whatever he thinks he wants. Adults continue to place more and more limits on his inappropriate behaviours or unrealistic requests. However, he is learning that "no " isn't always absolute, and he begins perfectly the fine art of manipulation to get adults to give in to his demands. This is the beginning of his assessing his will and independence. The child in trying to negotiate, is discovering how much power and control he has over the people around him an the environment. He is learning to assert independence



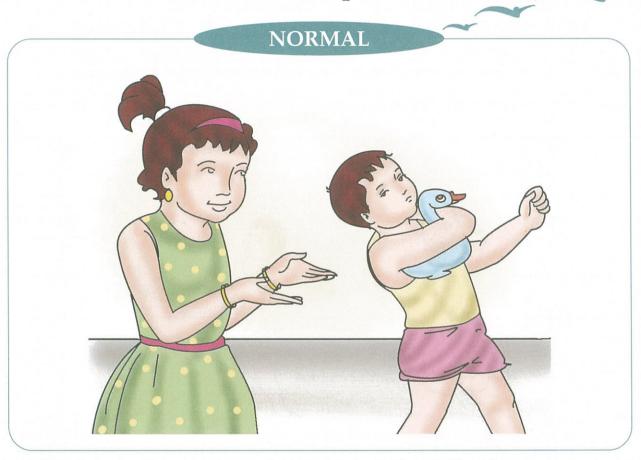
Formation of self identity.

### Intervention:

Provide opportunities to the child to express his opinions during routine daily activities. Appreciate his right approach and self expression which will boost and srengthen his self will and independence.

## Defends own possession with determination Age: 21-24 months

Area: Area Independence



## IMPORTANCE

Helps in developing sense of belonging and respect for ones own belongings. Helps the child to relate to people and possessions as his own.

### Intervention:

Ask the child for his belonging eg. To bring his favouring toy. When the child brings it.

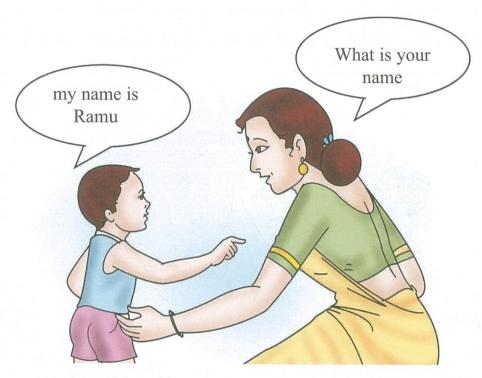
Ask him as to whom they belong. Allow the child to respond and tell that they belong to him.

Play games where the child will have indicate his toys or belongings as against his/her siblings.

### Gives first name on request Age: 24-30 months

Area: *Identity* 

### **NORMAL**



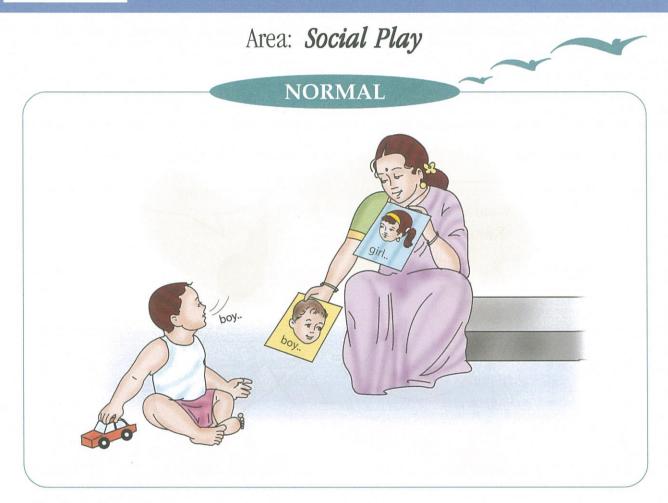
Mental representations of the self, as distinct separate from internal representations of the mother and other objects, pave the way for the formation of self-identity.



### Intervention:

- Call the child's name each time you enter the room or want him to come to you. Encourage imitation.
- Using a mirror, point to the child and repeat his name. Similarly point to yourself and say here is daddy
- Play hide-and- seek. Hide your own face or hide behind a chair. Call out the child's name and peek out and look at the child, and saying here is the baby. Encourage imitation.
- Encourage the child to hide and again ask where he is. Show him how to pop out when his name is called.

### Knows own sex Age: 24-30 months





### Intervention:

- Ask the child if he is a boy or a girl. Encourage him to shake his head or say yes or no approprately.
- Allow the child to watch other children. Label the children as boys and girls. Show the child pictures of boys and girls and say, "Point to the girl and point to the boy".

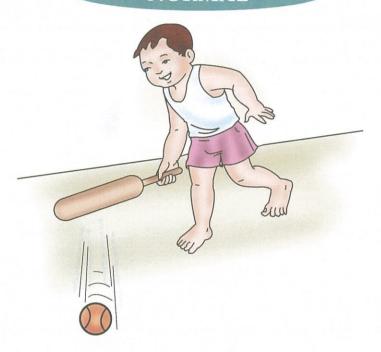
### **Modifications:**

For Visually Impaired: The child will not recognize these differences until much older. Name his body parts for him. Talk about boys and girls, men and women. Help the child differentiate sexes by their voices.

## Independently chooses toys and entertains self

Area: Area Independence

### **NORMAL**



Independence begins to be a primary goal for young children once they become more mobile and stable in their movement patterns. By eighteen months, the child has usually had some practice walking and is more capable of going off on his own. As the child becomes secure in his present environment he begins to explore and discover new things. This is a time of learning as well as a time to break away from the caregivers constant presence. The ability to play alone in a way that is self-motivated encourages independent learning and self-confidence.



Helps in identifying ones own possessions.

### Intervention:

Put an open toy box or clothes basket filled with toys near something to play with. When the child is engrossed in an activity, leave the room for short periods. Reward her for playing by herself by making comments about what she is doing, or occasionally helping her with a toy she is unable to manipulate.

#### Note:

Keep a toy box in a consistent place and encourage the child to choose her own toys and play without being asked.

### **Modifications:**



Motorically Impaired: If the child is immobile tie light weight toys to her wrists and ankles and reward her when she attempts to play with them.



Visually Impaired: Place the child in consistently defined areas throughout the day (toddler chair with encircling table, mat on the floor) and put her toys within reach of her hands and feet. Encourage her to play by shaking a noisemaker or tickling her with a soft toy.

### Claps in tune to music Age: 24-30 months

Area: Social Play

### **NORMAL**



Children show keen interest to unusual sounds and voices. Especially when music is played children begin to enjoy and this is seen in their facial expression and body movements.

## IMPORTANCE.

Helps in combining rhythm and pleasure which enables them to appreicate music. It also helps in soothing children and develops positive emotions in response to the music heard.

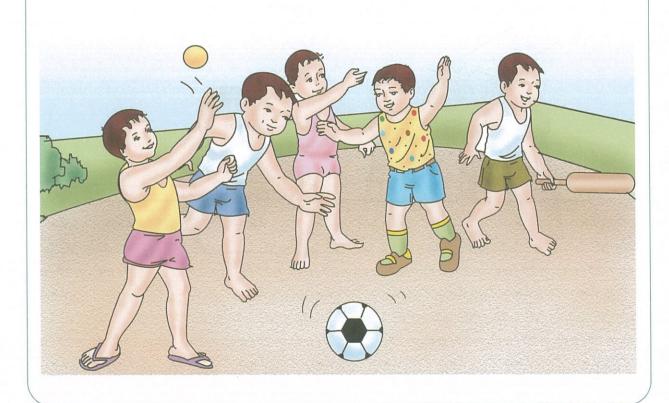
### Intervention:

- Play music and exhibit signs of enjoying the music by either rocking or claping in tune with the music. Encourage the child to imitate.
- Increase and decrease the volume while the child is watching and make expressions by which the child will also begin to enjoy.
- Talk to the child about the music and help him to appreciate it.

## Usually plays besides but not with other children Age: 15-18 months

Area: Social Play

### **NORMAL**



## IMPORTANCE

Helps in formation of relationships.

### Intervention:

- Allow the child to interact with other children. Put the child near the children to watch them play. Encourage him when he responds by moving toward them or sitting by them.
- Take you child to busy places and encourage him to watch and imitate the other children.
- Encourage your child to watch and play near other children.

#### Note:

Children at this age do not generally play with others or share toys. They can, however, learn to imitate other children's play and may move closer as they become more comfortable with the situation.

### **Modifications:**



Hearing impaired: Introduce your child to other children, explaining to them that he does not hear well.

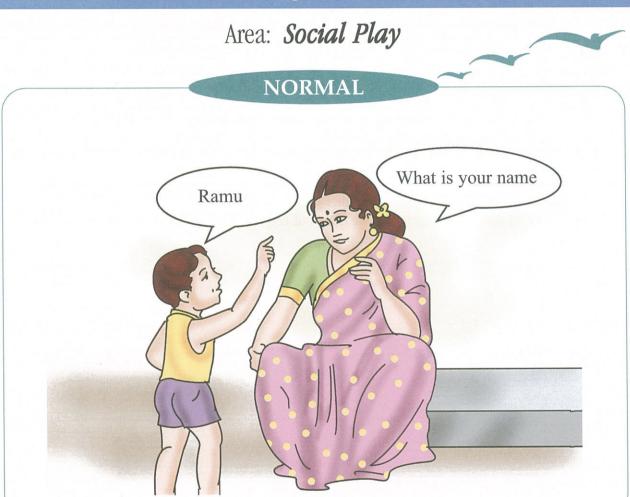


Motorically impaired children: If the child cannot crawl or move well, place him in a position where he can watch children walking home from school, playing etc.



Wisually impaired: Encourage the other children to play with noise making toys and to talk to the child. Explain to them that he does not see well

### Gives first name and age Age: 15-18 months





### Intervention:

Helps the child to develop an identity of his own and builds self worth.

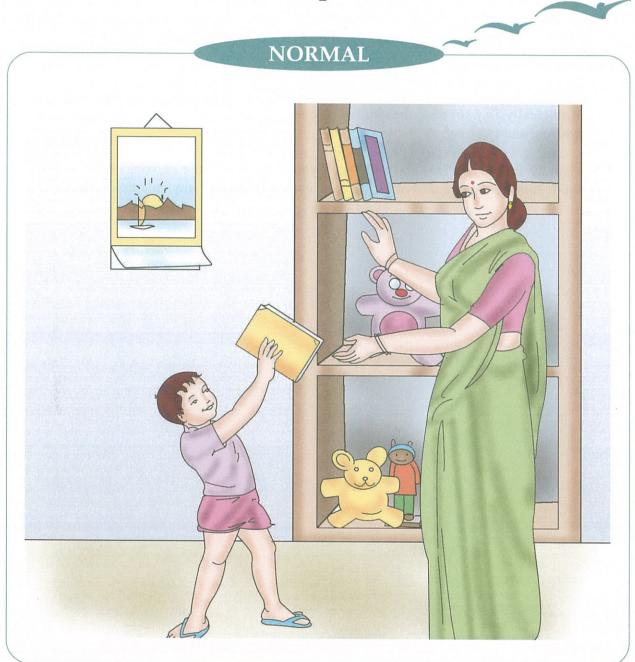
- Use a mirror and ask the child who's image that it? Encourage teh child to answer and similarly ask the child how old he is. Initially say it out to the child how old he is.
- Allow others to call the child by his name and age.

### **Modifications:**

Visually impaired: Avoid the mirror activity.

## Likes to help adult Age: 30-36 months

Area: Cooperation





Following directions is an important foundation for later skills.

Following simple requests means the child can participate in daily living activities

### Intervention:

- 1). Let the child play with utensils, brushes, napkins and sponges. Reward him when he does some thing appropriate with them.
- 2). Let the child help you lay the table at meal times. Give the child appropriate objects and reward him for attempts at using them correctly.
- 3). Let the child participate in other household chores such as cleaning and sweeping.

#### **Modification:**



Motorically Impaired: If the child is able to move his arms, he should be able to imitate washing and cleaning.

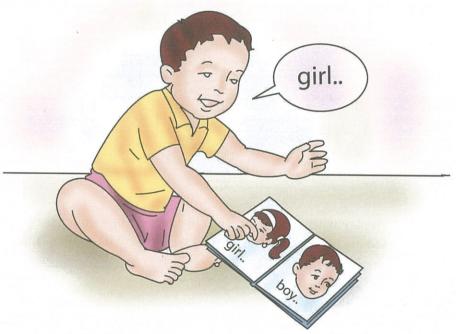


Visually impaired: Take the child with you as you do some of your household chores. Guide him through the activities; describe each activity and why you are doing it.

## Can differentiate between boy and a girl Age: 30-36 months

Area: *Identity* 

### **NORMAL**



Initially children identify the caregiver and later learn to differentiate the caregiver from the stranger.

## IMPORTANCE

Helps in formation of gender role stereotypes.

### Intervention:

- Show pictures of boys and girls to the child. Ask the child to identify boys and girls in pictures or when playing.
- Ask the child about his/her own sexual identity.

### Modification:

Visually impaired: The child will not recognize these differences until much older. Always specify the sex of the persons the child interacts.

### Begins to play with other children Age: 30-36 months



### **NORMAL**



It is a stage of social play where the child plays in association with other children they enjoy sharing their toys and also takes the roles to play with others like father, mother, child etc.

## IMPORTANCE

Helps to form relationships.

#### Intervention:

- Give the child opportunities to play with children of his age slightly older. Reward him when he begins to share toys or take turns with the when he begins to share toys or take turns with the other children.
- Encourage the child to give a sibling or friend one of his toys to play with.
- While at the park, show the child how every one must take turns on the slide and the swings. Use words such as, wait, your turn, next.

### **Modifications:**



Motorically impaired: If the child does not have use of his hands and arms, help him manipulate or play with a toy and then give another child a turn.



Visually impaired: Describe the actions of the other children (what they are doing, whose turn it is). Tell the child when it is his turn to (swing) or whether it is another child's turn.

# APPENDIX



### APPENDIX: A

## SPEECH, LANGUAGE & COMMUNICATION

Item No.	Description	
		Page No
1.	Looks at speakers face (0-3 months)	23
2.	Stops crying on hearing human voice (0-3 months)	25
3.	Different cries for different needs (0-3 months)	27
4.	Cooing sounds just after feeding or diaper changing (0 - 3months)	29
5.	Child is usually frightened or disturbed by angry voices and shows response like crying or ready to cry (4-6 months)	a 31
6.	Exploration of mouth with tongue and producing sound such as lip smacking, squeals, growls, clicks (4-6 months)	33
7.	Produces early babbling, frequently heard sounds like "baba", "dada" (4-6 months)	35
8.	Responds to name by turning head (4-6 months)	37
9.	Recognizes names of few common objects and persons in the immediate environment (7-9 months)	39
10.	Uses voice sounds to get attention of others (7-9 months)	41
11.	Uses some speech like vocalizations appears to be naming some things in his own language (10-11 months)	43
12.	Understands the word "no" (10-12 months)	45
13.	Now and then can follow simple commands accompanied with gestures (Like put that down, where is the ball) (10-12 months)	46
14.	Demonstrates understanding by making appropriate verbal response to some questions (Eg: Namaste, Bye-bye) (10-12 month	48 ns)
15.	Tries to imitate sounds (10-12 months)	50
16.	Says first true words like amma, papa, dada etc (10-12 months)	52
17.	Points to common objects when named (13-15 months)	54

18.	Imitates animal noises (13-15 months)	55
19.	Points to 4-5 body parts, Points to 5 or more pictures (14-16 months)	56
20.	Responds to some question forms What- doing, where-object (16-18 months)	58
21.	Produces approximately 50 words (16-18 months)	59
22.	Speaks in two-words combination phrases (19-24 months)	60
23.	Simple sentences and 3 word sentences (19-24 months)	61
24.	Produces 4-5 word sentences (25-36 months)	62
25.	Begins to use complex sentences (25-36 months)	63

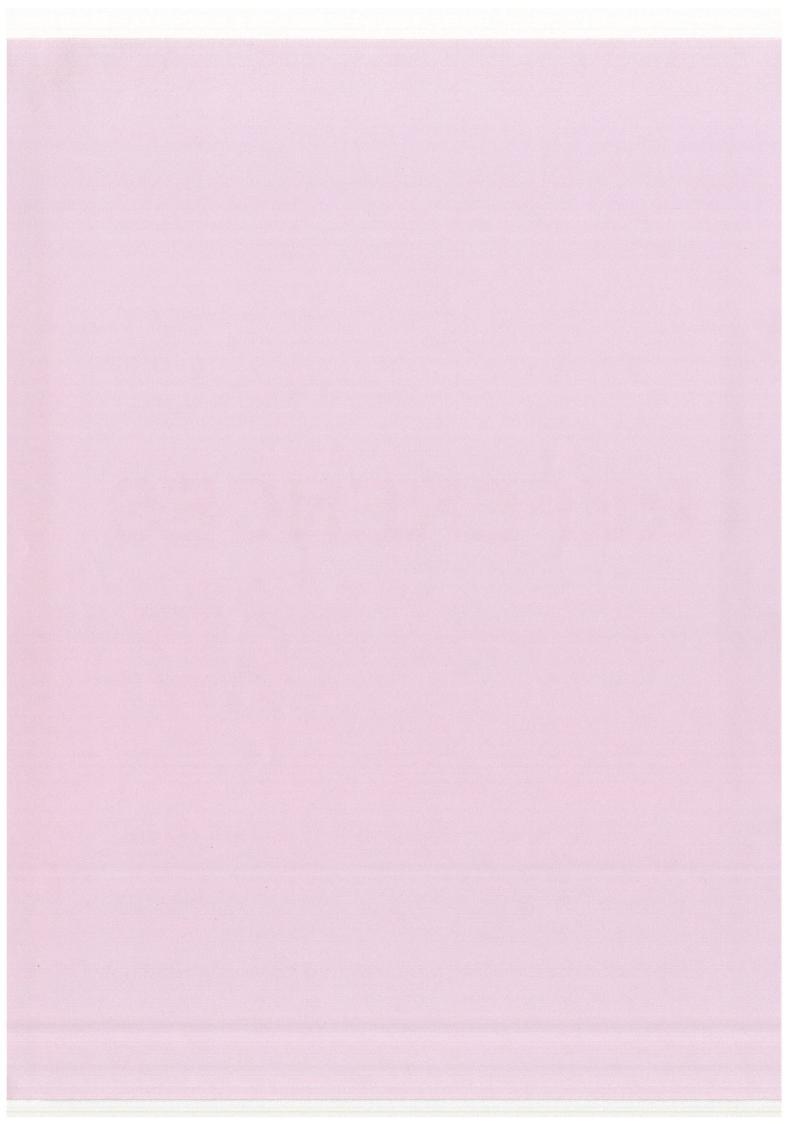
### APPENDIX : B

### SOCIAL

Item No.	Description	age No
1.	Looks at a persons face for a moment (0-3 months)	77
2.	Smiles or makes sounds when touched/talked to / or on seeing or hearing a voice (0-3 months)	79
3.	Kicks legs and arms in play (0-3 months)	81
4.	Smiles back at a smiling face (3-6 months)	82
5.	Laughs when stimulated (tickling, bouncing, vocal play) (3-6 months	) 83
6.	Pulls cloth over face in play (3-6 months)	84
7.	Turns to person talking (3-6 months)	85
8.	Pats mirror image (3-6 months)	87
9.	Stretches arms to be picked up (3-6 months)	88
10.	Turns immediately to mother's voice across the room (3-7 months)	90
11.	Laughs when watching others play peek-a-boo (6-9 months)	92
12.	Shows toys held in hand (6-9 months)	93
13.	Plays with toys/objects (rattles, mobiles tumbler, spoon) by looking at them, turning them over and manipulating its parts (6-9 months)	95
14.	Claps hands and waves good bye (9-12 months)	96
15.	Offers something to an adult but will not let go (9-12 months)	98
16.	Hugs doll or animal (9-12 months)	100
17.	Gives object on request (9-12 months)	101
18.	Responds physically or vocally to other children (12-15 months)	102
19.	Imitates every day activities and household tasks (12-15 months)	103
20.	Offers toys to an adult and lets go (12-15 months)	104
21.	Imitates Every day Activities (12-15 months)	105
22.	Plays spontaneously with a variety of objects (12-15 months)	106
23.	Exhibits several different actions on one toy (12-15 months)	108
24.	Plays near other children on occasions (12-15 months)	110

25.	Sometimes clings to, sometimes pushes away an adult (15-18 months)	112
26.	Picks up and puts away toys on request (15-18 months)	113
27.	Imitates another child or adult (15-18 months)	114
28.	Demands immediate gratification of needs (21-24 months)	115
29.	Defends own possession with determination (21-24 months)	116
30.	Gives first name on request (24-30 months)	117
31.	Knows own sex (24-30 months)	118
32.	Independently chooses toys and entertains self	119
33.	Claps in tune to music (24-30 months)	121
34.	Usually plays besides but not with other children (15-18 months)	122
35.	Gives first name and age (15-18 months)	124
36.	Likes to help adult (30-36 months)	125
37.	Can differentiate between boy and a girl (30-36 months)	127
38.	Begins to play with other children (30-36 months)	128

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