

1-Intervention Module for Preschool Children with Communication Disorders to Facilitate Cognitive Domain

by Swapnan Jayaram

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INTERVENTION MODULE FOR PRESCHOOL CHILDREN WITH COMMUNICATION DISORDERS TO FACILITATE COGNITIVE DOMAIN (IMPCCD-CG)



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**INTERVENTION MODULE FOR PRESCHOOL CHILDREN
WITH COMMUNICATION DISORDERS TO FACILITATE
COGNITIVE DOMAIN (IMPCCD-CG)**

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PREFACE

The **10** *'Intervention module for preschool children with communication disorders to facilitate* **22** *cognitive domain'* has been developed as a part of two All **15** *India* Research Fund Projects undertaken at the **All India** Institute of Speech and Hearing, Mysore, titled *'Development of an intervention module for preschool children with communication disorders (Phase I and II)'*. The principal investigator of the project was Dr. Swapna, N. who is a Lecturer, Dept. of Speech-Language Pathology, AIISH, Mysore. She has over 17 years of clinical experience in working with individuals with various speech and language disorders. This project was the outcome of her rich experience in dealing with children with communication disorders. The co-investigators were Dr. Jayaram, M., former Director, AIISH, Mysore and currently working as a Professor of Speech-Language Pathology & Audiology, NIMHANS, Bangalore, Dr. Prema, K.S., Professor, Dept. of Speech-Language Sciences, AIISH, Mysore and the head of the Dept. of Special Education & Dr. Geetha, Y.V., Professor, Dept. of Speech-Language Sciences, AIISH, Mysore. These projects were sanctioned in the year 2005 and 2006 and were completed in the year 2010. As a part of these projects checklists and intervention modules were developed for ten different domains viz. self help, social, motor, cognitive, sensory, speech and language, play, pre-reading, pre-writing and pre-arithmetic. **29** This book contains checklists to assess the cognitive domain in children with communication disorders **in** *the age range of 0-6 years and the* activities to facilitate this domain. It also includes instructions and guidelines on how to use the module. I congratulate the authors for developing this module. I request the speech-language clinicians, special educators and parents/guardians/caretakers of children with communication disorders to use it extensively and send the feedback, if any, to director@aiishmysore.in.



Dr. S.R. Savithri
Director

Introduction to the Module

Communication is a social behavior, which is essential for human existence. It is an active and intentional two way process of exchange of information between two or more individuals. Language forms an important mode of communication. Language involves the use of an arbitrary set of symbols (code) arranged in prescribed manner to convey meaning. The other two aspects of communication are speech, which is the verbal means of communicating or conveying message and hearing, which is the sensory perception of sound.

Majority of the children develop language and communication skills without effort. However for some children, communication breaks down because of certain problems such as hearing loss, poor intellectual skills, poor social and emotional growth and a variety of other factors. These children with communication disorders face difficulties in understanding and speaking. These disorders may range in severity from mild to profound and may be developmental (present since birth) or acquired (develop later in life).

Over the last few decades the number of children with these disorders has risen alarmingly. Such children with communication problems face immense difficulty in acquiring speech and language without extra support from parents as well as professionals. They may also have deficits in the other domains such as self help, social, motor, cognitive, sensory, speech and language, play, academic domains. In order to develop their potential, these children require support services beyond those that are considered sufficient for the development of their same age peers. The rehabilitation of such children with special needs has been in existence for more than half a century and during this period, efforts have been made to rehabilitate them right from infancy through preschool and school years. It has been realized gradually over the years that children with communication problems benefit maximally and can be mainstreamed if rehabilitation is instituted right from preschool age with a well-formed and specific curriculum and strategies.

Though there are many preschools for children with communication problems in different parts of our country, an informal observation indicated that no specific guidelines or a standard preschool curriculum was available to the teachers working in these special schools. Due to the non-availability of a curriculum, the teachers are forced to either prepare their own syllabus or use textbooks meant for normal children. This exerts an extra pressure on these children as a consequence of which they fail to reach their full potential.

Thus a need to prepare a curriculum for such children was felt by the speech-language pathologists and special educators who have been working with special children. It is with this intention that a curriculum for special children of preschool age incorporating ten different domains viz. self help, social, motor, cognitive, sensory, speech and language, play, pre-reading, pre-writing and pre-arithmetic domains and activities to facilitate these domains was prepared so as to facilitate an all round development in the child. This preschool curriculum was prepared in three phases. In the first phase a seminar was conducted for the teachers of regular preschools and the curriculum that they followed to develop the various domains in their respective schools was discussed. In the second phase, a seminar was conducted where the teachers working in preschools for special children with various disabilities were invited and the curriculum followed by them was discussed in a similar manner. Moreover other experts working in the area of child development and special education were also invited to contribute to the seminar. Based on the inputs given by these resource persons, a tentative curriculum was formulated for training purposes. This was distributed to normal and special school teachers who participated in the earlier two seminars, for field trial. In the third phase, a workshop was conducted for the participants of the earlier seminars to obtain their feedback regarding the curriculum based on the field trial. Following this the curriculum was finalized and was put into use at the preschool training center at AIISH.

During the process of implementation of the curriculum, it was felt that assessing the functioning level of a particular child on ten different domains was a little tedious because of the way in which the curriculum was organized. In addition, there was a need felt to assess the sensitivity of this curriculum on children with communication disorders and hence this was taken up as an AIISH Research Fund project. As a part of this project, developmental checklists to assess the ten different domains as mentioned above along with separate intervention modules consisting of activities to facilitate the domain were prepared which were based on this curriculum and other resources. The checklists **20** were standardized by administering it on 365 typically developing Kannada speaking Indian children in the age range of 0-6 years. The standardized checklists were further administered **on** children with communication disorders as a part of sensitivity assessment (67 children with hearing impairment and 18 children with mental retardation). Based on their functioning level, the activities mentioned in the intervention module were given for training for a period of three months, following which the final assessment was carried out by re-administering the checklist. In general, it was found the activities brought about a positive change in the children with hearing impairment and mental retardation. The feedback from the parents with regard to the activities was incorporated and appropriate modifications were made.

10 Thus this module titled 'Intervention module for preschool children with communication disorders to facilitate 'cognitive domain' is the end product of the project. This module is designed as a guide for parents/caregivers and educators to facilitate the development of cognitive abilities in children who are developmentally up to six years afflicted with various communication disorders. It contains a user friendly checklist to assess the child's cognitive abilities, a score sheet to document the baseline of a child, periodic progress chart and activities to facilitate this domain. It also contains instructions and guidelines on how to use the intervention module and some general instructions to the users of the module while training a child.

32 Although the sensitivity assessment has been carried out on children with hearing impairment and mental retardation, it can be used with other communication disorders too, by carefully selecting the goals and the activities. The intervention module is divided into eighteen different levels ranging from 0-6 yrs. Each level from 0-3 years ranges over a duration of three months and the levels from 3-6 years ranges over a duration of 6 months. Although designed for children upto six years of age, it could also be made use of with children who are older than six, but with a communication problem and a delay in the development in various domains, for e.g., a child whose actual age is 7 years and the developmental age is 2 years. It incorporates the objectives and activities in a hierarchical manner based on developmental norms for typically developing children, which will help in assessing the functioning level of the child and in designing a training program. This is also designed keeping in view the limitations of finances and resources that must be considered in the Indian context. The present module is a byproduct of the efforts of several individuals with several additions, deletions and modifications at different stages.

15 This intervention module for preschool children with communication disorders enhances the understanding about the importance of need and planning for preschool education and provides lesson plans to persons working directly with children in preschool setups. It has been developed keeping in view the future integration of such children with their normal peers. It is hoped that the intervention module would be a practical, ready to use manual and would facilitate the work of special educators and speech-language clinicians working in various preschool setups and parents/guardians/caretakers of children with communication disorders and adapted as a uniform curriculum across all the preschools for special children.

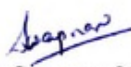
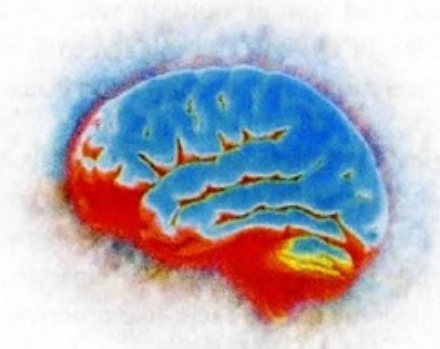

Dr. Swapna. N
Principal investigator

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INTRODUCTION

Cognitive skills are the fundamental tools of effective learning. The word "cognition" is defined as "the act of knowing" or "knowledge." Cognitive skills refer to those mental processes that make it possible for us to know and understand, i.e., learning. Cognitive processes are also called "underlying skills," "mental skills," or processing skills." These skills are what our brain uses to gather and process information. We need these skills to help us learn and to help us read, hear, think, understand, visualize, remember, plan, prioritize, create useful associations, solve problems and also use all academic disciplines such as geometry, social studies and science. Therefore all cognitive skills must be taught.



All of us, at every moment of the day, at work, or at home use cognitive skills. We use these skills in our daily life in a very casual but efficient way. However, numerous studies have shown that with regular practice and concentrated effort, we can improve the ease and speed with which these cognitive skills function, thereby boosting our brain's power and keeping this vital organ healthy and strong. To be able to read and understand an article in the newspaper, to write a note with a pen, to recognize a colleague of ours at the movies, to recall the first and last name of our new friend, to make an arithmetic calculation, to have a discussion with our neighbor, to button our shirt, to know that a rose is a flower, to remember what our aunt's house looks like, to take the right road to work, to remember where we have parked our car, to know that Delhi is the capital city of India, to know how to ride a bicycle... All these daily activities or processes require a fit brain.

Cognitive skill describes a broad spectrum of competencies. They include - Attention, Concentration, Memory, Auditory processing, Visual processing, Visual and Spatial skills, Logical thinking and Reasoning, Problem solving, etc. Basic prerequisites to scholastic functioning such as numbers, colors, shapes, money, and measurements and concepts of similarities and differences, size, position, weight and textures are also assigned to the cognitive section. The subskills included under cognition are described below. Each of these skills and sub-skills play a specific and necessary role and must work in coordination before an individual can learn effectively. Weak skills result in a diminished capacity to learn.

Attention and concentration: Attention and concentration refers to the ability to stay on task or ignore distractions. The child must first be taught to focus his attention on target stimuli and later to keep his attention focused on the target for a period of time. When a child focuses his attention for a long time, it is referred to as *concentration*.

Memory: The ability to remember and recall any information is referred to as memory. Memory can be of long or short-term type, for instance, copying information from a board uses short-term memory. Long-term memory is used in taking a final exam in an academic subject such as Science or History.

Processing: It refers to the ability to process any incoming information which occurs at the brain level. The information could be auditory type (sounds, speech etc.) or of visual type (pictures, written text etc.). The ability to listen and focus on selected sounds so that they can be retained and processed in a clear and organized manner is termed as auditory processing skill. Visual processing skills refer

to the ability to understand any visual information. Both auditory and visual processing skills are important prerequisites to learn to read and spell.

Visual and spatial skills: It refers to the ability to recognize visual shapes and color, analyze the position of an object in relation to another one, or estimate the distance between two objects. It is necessary to be able to analyze all visual data in order to act within your daily environment.

Logical thinking: Logical thinking is a learned mental process. It is the process in which one uses reasoning consistently to come to a conclusion. Problems or situations that involve logical thinking call for structure, for relationships between facts, and for chains of reasoning that 'make sense'. This process involves taking the important ideas, facts, and conclusions involved in a problem and arranging them in a chain-like progression that takes on a meaning in and of itself. To think logically is to think in steps.

Reasoning: It refers to the ability to make sense of things, apply logic, reason, plan and think. Problem solving and comprehension will be affected with deficiencies in this underlying skill.

Problem solving: It refers to the ability to form an action plan to solve a problem and reach your goal. If the goal is too difficult to reach in a single step, intermediate objectives must be defined to make progress easier. At the same time, it is necessary to take into account the means available to you and to consider the constraints and processes that follow. Finally, it is crucial to select an appropriate solution when several solutions are available, and to make sure that the action plan created will indeed accomplish the goal.

Imagination: This refers to the ability to create mental images of concepts in a moment when they are not perceived through the sight, hearing or other senses. Imagination helps provide meaning to experience and understanding knowledge; it is a fundamental facility through which people make sense of the world and it also plays a key role in the learning process.

Strong cognitive skills are the key to successful learning. When cognitive skills are strong learning is fast, easy, efficient and even fun. When cognitive skills are weak, learning will be a struggle or even impossible. For example, a child with attention problems will find it difficult to stay on task and ignore distractions. With auditory processing problems, a child will have difficulty sounding out words when reading or spelling. Thus, cognitive skills are the essential tools for learning.



Children with communication disorders such as hearing impairment, mental retardation, autism spectrum disorders, cerebral palsy, specific language impairment, specific learning disability etc., have associated cognitive deficits. They may have poor attention span, memory, reasoning, logical thinking etc. This could affect the learning of other skills such as language, reading, writing, arithmetic etc. Consequently, it is essential to train these children on these fundamental skills which would in turn enhance the acquisition of other related skills.

In order to facilitate the development of cognitive skills in children with communication disorders this intervention module took its form. It consists of a checklist to assess the functioning level (baseline) of the child, a score sheet to document the responses as well as activities to improve cognitive skills there by bridging the gap between the actual age and cognitive age if any. These

activities are user-friendly and have been field tested for their effectiveness. It can be easily adapted in a classroom, in a one-to one therapy session or at home. It can be used by special educators, preschool teachers, elementary school teachers, speech-language pathologists and parents/caregivers. If these activities are carried out in a systematic, sincere, consistent and sequential manner, it will certainly bring about an improvement in the overall cognitive ability of the child. The instructions to use this module are mentioned below:

Instructions to use this intervention module:

Step 1:

Assessment: Administer the checklist on cognitive domain provided on page no. 16, 17 and 18 to assess the functioning level (baseline) of the child. Start at a lower-age level and then proceed to higher-age levels. Read each item carefully and assess the child on that item. Provide clear instructions to the child. Observe the responses and document it. In cases where it is difficult to observe the child's response, information should be obtained by interviewing the parents/guardians. If the interviewee is uncertain of any item, it may be best to allow him/her a few days time to observe a given behavior and report subsequently.

Rate the abilities of the child for each of the items based on the scoring pattern given (i.e. 0-Not applicable/absent, 0.5-Totally dependent/physical/verbal prompt, 1-Consistent and independent) in the score sheet provided on page no. 19 & 20 and 21. A child may receive any score ranging from zero to one depending on the level of assistance he requires to perform a given item. Stop at the level at which the child obtains five consecutive failures ('zeros'). This level indicates the level at which the child is functioning, viz. the baseline. If the age group at this level matches with the child's chronological age or actual age, it indicates that he has developed all the skills appropriate for his age. In case it does not match, note the age group and level; note the gap between the current functioning level and the actual age level. This would indicate the difference between the child's current functioning level and the actual age level. The total score that could be obtained by a child depends on the actual age of the child. If the child is two years old, he would fall into the level VIII and he should have a maximum score of 21. Now compare the child's obtained score (add up his individual scores on each item) with the actual/age appropriate score that needs to be obtained. If the child has obtained a score of 8, document as 8/21.

If the development of the skill is not age appropriate, note those items below the functioning level on which he has obtained a zero score and all the items following that level which are not achieved by the child up to the actual age level in a separate recording book. This would help in later comparisons.

Step 2:

Training: Select the first item/objective following the functional level as target for training. Look in for the activities provided for that item in the intervention module given. Keep your focus on the selected item. Break down the item into short term goals, if required. Familiarize yourself with all the activities; choose the appropriate activity for your child. Select and prepare the materials and then initiate the training program. Train the child for the item using the activities provided. You can also use other activities relevant to the item while training the child. Be regular and consistent in carrying out the activity. Note the day to day progress in the recording book. If the child is poor in other skills such as speech, language, self help, sensory etc., follow a similar procedure and carry out training in other skills too. Similar checklists for nine other skills along with activities to train these skills are also available.

Step 3:

Review: Reassess the child periodically (monthly once) to check for the progress in the child and record it on the score sheet provided. Also profile the child's performance periodically as shown in the graph on page no. 21. Maintain a daily diary in which you record the daily responses and the weekly progress of the child. If the child is able to perform an objective consistently or his responses are consistent, that indicates that the child has achieved the target. If the responses are inconsistent or if the child has not achieved the item/objective at all, then continue the training for the same item by changing the activity or the materials or the reinforcement strategies until the child achieves the item. Once an item is achieved, switch on to the next item and start training. Continue the same procedure until the child achieves the age appropriate abilities in each skill.

P.S:- This checklist does not serve the purpose of a diagnostic tool. In order to arrive at a diagnosis, more formal evaluation and tools are required. The profile provides a quantification of the child's functional level and an estimate of his potential. It provides with a reported observational summary of the child's performance at the time. It also provides a baseline for intervention with subsequent steps/targets towards enabling the child to perform at levels that are more appropriate for his chronological age.

General instructions to the users of the module:

1. Keep the child's age, milestones, abilities, developmental status, cultural beliefs, availability of resources and local practices in view while planning. Keep in view the similarities and uniqueness of the child with respect to their background, previous knowledge etc.
2. Be aware of the process of growth, development and learning in children.
3. Provide experiences from simple to complex, familiar to unfamiliar, concrete to abstract aspects while introducing/teaching various skills.
4. Organize the activities beginning with immediate environment and then to the outer environment.
5. Include a lot of games, music, songs, poems, stories, role-plays etc. because children are more interested in these and learn better. Use a little creativity and imagination while developing new meaningful, interesting and enjoyable activities.
6. **21** w/keep picture/models at eye level of the children.
7. **Provide and allow for a balance of activities**
 - **Structured / unstructured**
 - **Informative / creative**
 - **Active / quiet**
 - **Indoor / outdoor**
 - **Observing / participating**
 - **Individual/group**
8. Learning by doing should be the theme behind the activities. Hence teach the child various concepts by touching, doing, smelling, tasting, seeing and hearing. This will help in developing a better understanding of the concepts.
9. Make learning an enjoyable experience for the child. As far as possible try and use materials that interests your child. Use the blackboard whenever necessary. Use only white chalks during the early stages of training. Also use lot of audio visual aids like TV, video, slides, charts, posters, flip charts, picture cards, flannel boards, computers and software programs, cassettes, radio etc.
10. Prepare the teaching aids in advance for carrying out the activity and keep all the necessary materials ready.

11. During the initial stage of teaching, model the target behaviour by demonstrating and encourage imitation of the same. Use manual or physical guidance or assistance when required. As the child learns it, elicit the responses by providing only verbal prompts or oral instructions and later withdraw the prompts too so that the child can carry out a skill independently.
12. Carryout the activities for a short duration but make sure that these activities are repeated several times to achieve acquisition and internalization of a particular concept.
13. Ensure that all the activities are carried out in a natural situation so as to facilitate generalization.
14. Provide adequate opportunities to the child to demonstrate the skills acquired.
15. Give enough time to learn the concepts, do not pressurize the child.
16. Be patient with the child and give time for him to respond.
17. Listen carefully to the child and respect his feelings.
18. Give single command at a time. Be brief and clear in your instructions.
19. Do not take too many goals for teaching at a time; take one goal/item from each skill for training.
20. Provide appropriate reinforcements for the child. Each time the child gives a correct response, be sure to encourage further which could be either a social reward (saying good boy/girl, patting on his back etc.) or a tangible reward (giving toffees, stars or stickers). At the same time unwanted or undesirable behaviors of the child should be discouraged by either being firm with him or ignoring the child while he exhibits such behavior.
21. Give the child lot of encouragement and affection. Do not compare him with other normal children or those who have similar problems. Every child is unique and has his own rate of learning.
22. Do not expect immediate improvement in the child and show perseverance while training. Be systematic and sincere in carrying out the program.
23. Please note that while every activity predominantly promotes development in a particular area, it fulfills various other developmental objectives. For e.g., a simple activity of coloring with crayons is a creative activity which also promotes finer muscle coordination, eye hand coordination, attention, reference knowledge of colors, provides an opportunity for self expression and can also be related to other topics like fruits, vegetables etc. in terms of their colors.
24. Family members play an important role in applying the skill learnt in a natural situation. Hence involve all the family members in the training program, so that the child gets good support from all of them.
25. Carry out the training in other deficit skills also simultaneously for the all round development of the child.

HAPPY TRAINING !!!!!

ASSESSMENT CHECKLIST FOR COGNITIVE DOMAIN

Instructions: Rate the cognitive abilities of the child for each of the items based on the scoring pattern given.

Scoring: 0-Not applicable/absent; 0.5-Totally dependent/physical/verbal prompt, 1-Consistent and independent

Note: CG- Cognitive domain

Level and age gp. in months	Item code	Item
I 0-3	CG-1	Makes simple associations, e.g., bottle-drink
	CG-2	Attends/tracks to moving objects in and around the vicinity
II 4-6	CG-3	Demonstrates memory for objects and faces seen
	CG-4	Manipulates other's actions by acting in a specific way, e.g., if smiles gets kissed
III 7-9	CG-5	Retains one object when given another and pays attention to both
	CG-6	Finds hidden toys after watching it disappear and hence shows the awareness that objects exist when not seen
IV 10-12	CG-7	Knows that people and things have labels, e.g., looks at fan, light etc. when asked
	CG-8	Learns to do something after demonstration, e.g., rock doll, hit balloon etc.
V 13-15	CG-9	Relates an action to an object, e.g., spoon-stirring, car-pushing etc.
	CG-10	Demonstrates understanding of cause and effect, e.g., open/shut, push/pull etc.
VI 16-18	CG-11	Identifies that a picture is upside down
VII 19-21	CG-12	Matches two identical objects
	CG-13	Matches objects parts with others, e.g., round lid – bottle etc.
	CG-14	Begins to solve problems, e.g., obtaining objects beyond reach
	CG-15	Identifies objects by category, e.g., car- toy, crow-bird etc.
	CG-16	Has attention span of 3-4 minutes
VIII 22-24	CG-17	Exhibits auditory memory of at least one item (selects one picture or object correctly out of a choice of 5-6)
	CG-18	Dismantles and re-arranges the objects, e.g., tries to fix broken parts of toys
	CG-19	Has good memory of self and people around, e.g., tells names of self, parents and siblings
	CG-20	Preserves coins or notes as money
	CG-21	Associates use with most of common objects, e.g., towel -to wipe

Level and age gp. in months	Item code	Item
IX 25-27	CG-22	Places triangle, circle and square in shape board
	CG-23	Aware of daily routine (different activities go on different times of the day)
	CG-24	Uses one object to represent many objects, e.g., stick as gun, phone etc.
	CG-25	Attends to a task for a longer duration (5-10 minutes) with increased concentration
X 28-30	CG-26	Puts two parts of a whole together, e.g., completes puzzles with 2 to 3 pieces
	CG-27	Matches similar pictures
	CG-28	Discriminates 'more-less' in liquids
	CG-29	Makes mechanical toys work, e.g., keying toys
	CG-30	Sorts coins from other metallic objects
XI 31-33	CG-31	Recalls three objects/pictures presented visually
	CG-32	Acts out a simple story
	CG-33	Matches and sorts 2 to 3 objects by color, shape, size and use
	CG-34	Begins to ask how and why things work
	CG-35	Understands the concept of same/different
	CG-36	Constructs sets of blocks when given a model
	CG-37	Pairs related objects and pictures, e.g., shoe and socks
	CG-38	Reasons, e.g., "Show me something that rolls"
	CG-39	Plans and describes an action
	CG-40	Relates time to clock
	CG-41	Differentiates 'now- later'
XII 34-36	CG-42	Knows money can buy things or has tender value
	CG-43	Identifies objects when part of it is shown in a picture
	CG-44	Adds two missing parts to a drawing
	CG-45	Arranges objects in ascending or descending order of size
XIII 37-42 (3.1-3.6 years)	CG-46	Sequences three pictured events from a familiar story
	CG-47	Compares two weights and describes it in terms of heavy or light
	CG-48	Associates an object with an occupation e.g., thermometer-doctor
	CG-49	Tells or sings TV commercials/songs/rhymes from memory
	CG-50	Detects absurdities in picture, e.g., train moving in water or man flying*
	CG-51	Recites days of the week and months of the year
XIV 43-48 (3.7-4.0 years)	CG-52	Understands time concepts (night/day/morning/afternoon/evening/etc.)
	CG-53	Performs alternate sequencing activities, e.g., red, blue, red, blue, ... (what's next?) etc.*
	CG-54	Discriminates coins from notes
	CG-55	Makes inferences, e.g., "The floor is wet so I slipped"
XV 49-54 (4.1-4.6)	CG-56	Categorizes objects or pictures based on two or more attributes like color, shape, size etc.
	CG-57	Uses deductive reasoning (using what we know to logically reason out a conclusion about what we do not know) to solve everyday problems, e.g., figures out which child is missing by looking at children who are present

years)	CG-58	Spots minute differences between pairs of pictures*
	CG-59	Trades several small items for a larger one, e.g., trades four small candies for a candy bar
	CG-60	Sequences events chronologically, e.g., tells the activities carried out in the morning in an order
	CG-61	Goes to neighborhood shops for a single item
XVI 55-60 (4.7- 5.0 years)	CG-62	Performs double alternate sequence activities, e.g., red, red, blue, red, red, blue,...(what's next?) etc.*
	CG-63	Discriminates length regardless of orientation
	CG-64	Remembers up to five items presented in the auditory mode
	CG-65	Relates make-believe tales
	CG-66	Copies a shape from memory after seeing a model for several seconds
	CG-67	Names week day 'after', e.g., "Wat comes after Tuesday?" etc.
XVII 61-66 (5.1-5.6 years)	CG-68	Remembers written words when it is removed from sight
	CG-69	Reports seasons in a year
	CG-70	Compares and orders different durations/intervals (can arrange the activities based on the time taken) e.g., brushing, bathing, sleeping etc.
	CG-71	Shops 3-4 items with chits
	CG-72	Names 'after' month, e.g., "What comes after May?" etc.
XVIII 67-72 (5.7- 6.0 years)	CG-73	Arranges pictures sequentially to create a new story
	CG-74	Knows difference between right and left
	CG-75	Demonstrates spatial relations in terms of constructing symmetry by figure/color completion or full drawing
	CG-76	Understands time concepts (today/tomorrow/yesterday etc.)
	CG-77	Gives information regarding any of these: complete address/phone number/occupation of parents

* Stimulus materials (pictures) provided in the appendix to elicit the information

SCORE SHEET

Name: _____ **Number:** _____ **Date of birth:** _____
Age/ Gender: _____ **Mother tongue:** _____ **Provisional Diagnosis:** _____
Examiner: _____ **School & Class:** _____ **Date:** _____
Instructions: Rate the abilities of the child for each of the items based on the scoring pattern given.
Scoring: 0-Not applicable/absent, 0.5-Totally dependent/physical/verbal prompt, 1-Consistent and independent

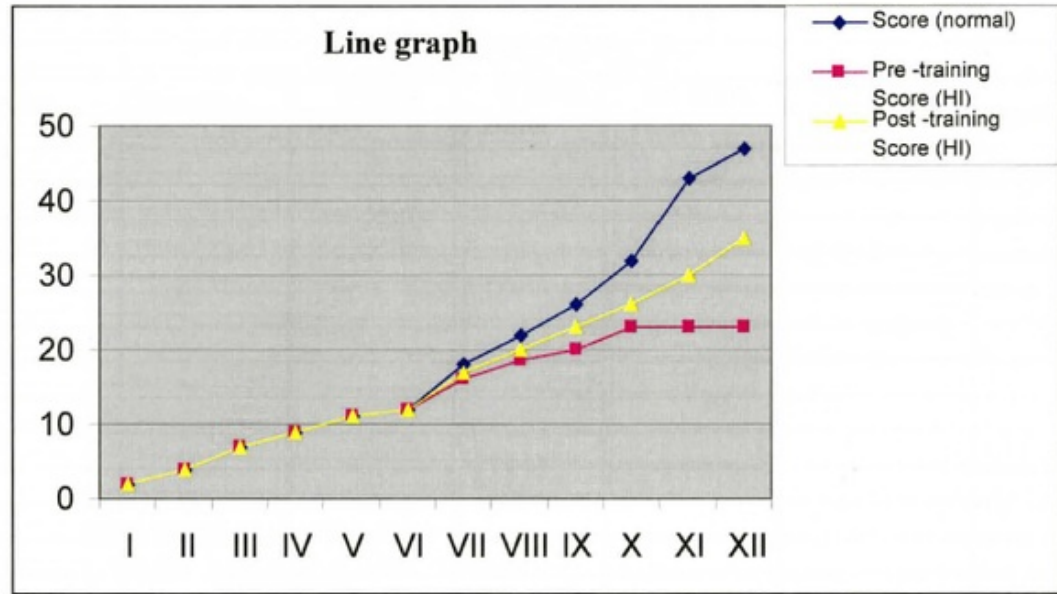
COGNITIVE DOMAIN						
Item no.	Baseline	23 HYA Date:	II HYA Date:	III HYA Date:	IV HYA Date:	Remarks
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75						
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Total score						
Examiner's name and signature						

P.S: HYA: Half Yearly Assessment

Note: The first column is meant for entering the baseline scores (on the first administration of the checklist) and the subsequent columns are for entering the progress once in every six months. This can be modified depending on the requirement of the trainer; the responses can be entered on a quarterly basis (after every three months) too.

The performance of a particular child over a period of time can be represented in a graphical manner as shown below. The values can be represented on a line graph or a bar graph. The figure 1 given below depicts the pre and post-training performance of a given child with hearing impairment in comparison to a typically developing (normal) child. Such graphical representations would provide a clearer picture of the performance of the child on a periodic basis.



OR

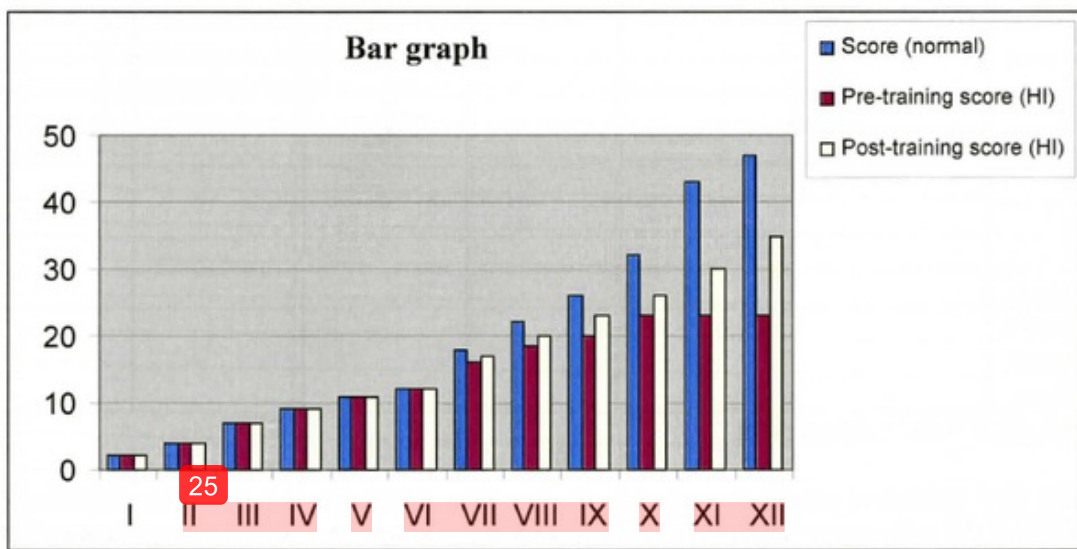


Figure 1: Baseline (pre-training score) and the post-training score of a child with hearing impairment (HI) and a typically developing child. The figure on the top is a line representation while the bottom figure is a bar graph representation of the same.

ACTIVITIES TO ENHANCE COGNITIVE DOMAIN


Level I: 0-3 months

Item code:- CG-1

Objective:- To develop the ability to make simple associations, e.g., bottle-drink

Materials required:- Feeding bottle/bowl, noise makers like rattle, squeaker, calling bell, telephone.

Activities:-


1. Before feeding the child, show the empty bottle/spoon/bowl and make him feel and or hold it. Later hold it near the face so that he gets the opportunity to see and smell the item. Also move the spoon or nipple of the bottle on the child's cheeks and lips. Speak to the child simultaneously by saying "Are you hungry, do you want milk?" etc. Then fill the bottle/spoon/bowl with milk and then feed the child. So in the course of time he will associate these items with feeding.
- 
2. Before making the child sleep, sing a lullaby. Make it a regular feature and do it consistently so that the child can associate lullaby with sleep.
 3. Expose the child to different sounds like that of a rattle, squeaker, calling bell, telephone ring etc. Show these objects and make the child hear the sounds made several times. Give the noisemakers to the child and encourage him to produce these sounds and to feel the objects. Thus the child will learn to associate these sounds with its source.

Item code:- CG -2

Objective:- To develop the ability to attend to/track objects in and around the vicinity

Materials required:- Soft, colorful toys like ball, squeakers, vehicle/animal toys, musical bells/ rotating toys, pen torch (laser light).

Activities:-

1. Show colorful objects to the child, e.g., colorful ball, squeakers, vehicle/animal toys etc. Encourage him to look at these objects. Expose the child to one toy at a time; simultaneously talk to the child about the toy in a singsong fashion (with varying intonation pattern) relevantly and produce different sounds to sustain the interest of the child in that object. Provide the child with these toys to play. Also move the toy in different directions slowly. Encourage him to look and attend to the movements of these objects.
- 
2. Hang rotating, musical bells/toys that make sound on to the cradle so that the child can see, hear and touch them when they are moved. Use this along with verbal communication (speak to the child) as mentioned above. You could also hang bits of brightly colored clothes/ balloons on a string in the room. Encourage the child to watch their movements.
 3. Darken the room by pulling the curtains. Switch on a torch or a laser light and hold it above the child at the eye level. Encourage the child to look at the light. Talk to the child as you do this. Focus the light on to the wall and move it in different directions slowly. Encourage the child to look at the moving light.

Level II: 4-6 months

Item code:- CG -3

Objective:- To improve the memory for objects and faces seen

Materials required:- Bottle/spoon/bowl, soft colorful toys like ball, towel/cloth.

Activities:-

1. Before feeding the child, show the empty bottle/spoon/bowl and make him feel and or hold it. Also hold it near the face so that he gets the opportunity to see and smell the item. Also move the spoon or nipple of the bottle on the child's cheeks and lips. Speak to the child simultaneously by saying "Are you hungry, do you want milk?" etc. Then fill the bottle/spoon/bowl with milk and feed the child. So in the course of time he will remember that these items are for satisfying his hunger and may cry or show some excited body movements as soon as they are seen.
2. Collect a few soft, colorful toys and place them out of sight. Seat the child comfortably and sit opposite him. Bring out a toy and show it to the child. Hold the toy close to your face and talk to him to attract the attention. While the child is watching, cover the toy with a cloth and say, "All gone!" Wait a few seconds, then uncover the toy and happily announce, "Here it is!" Repeat the activity several times with different toys and the child will smile or coo as soon as he sees/recognizes the toy.
3. Organize some play activities such as peek-a-boo with the child. In this game, hide your face behind a towel/cloth and then pop back into the child's view saying "Boo! See you!" Also make the child touch your face and each of the facial parts and talk to the child as you do this.



Item code:- CG -4

Objective:- To develop the ability to manipulate other's actions by acting in a specific way, e.g., if smiles gets kissed

Materials required:- Soft colorful toys.

Activities:-

1. When the child is hungry, show him the food items and the other items related to it. Ask the child "Are you hungry, do you want to eat?". If the child shows no response, keep the food aside but in the child's view. Play with the child for some time, again bring food near the child and ask the child the same question. Give the child the feed only when he cries or makes sound or some excited bodily movement with his mouth.
2. Play with the child with his favorite toys for sometime. Use one toy at a time. Later take it away from him. Only when he makes some sounds/vocalize, give the toys back. Thus the child learns that if he makes sounds, he will get his toys back.
3. When the child smiles, vocalizes or cries, kiss or hug him; gradually the child realizes that to get a kiss/hug, he has to smile, vocalize or cry.

Level III: 7-9 months

Item code:- CG -5

Objective:- To develop the ability to retain one object when given another and pay attention to both

Materials required:- Different colourful objects, colourful ribbon/satin string/crape paper, bead.

Activities:-

1. Tie a colourful ribbon/satin string/crape paper on your finger on both hands. Encourage the child to look at the ribbon on one hand first and later on both the hands. To draw and sustain attention, move your hands so that the ribbon moves. Tie the ribbon on the child's hands and encourage the child to look at them.
2. Show a colourful object to the child such as a ball or squeaker. Talk to the child about the object. As the child is looking at the toy expose the child to another toy. Encourage him to look at the second object. Talk to the child in a singsong fashion (with varying intonation pattern) relevantly about this object. Later allow the child to play with these objects.
3. Make the child hold a bowl in one hand. Allow the child to play with it. Later give an object and ask the child to put this object into the bowl. Repeat this with other objects.

Item code:- CG-6

Objective:- To develop the ability to find hidden toys after watching it disappear

Materials required:- Soft, colourful toys, towel/ cloth, soft toy with a bell inside or a bracelet, made of bells, various hiding places such as soft toys and blankets, sand pit/container filled with sand, chocolates/beads/seeds, plain/coloured water, coins.

Activities:-

1. Collect several soft, colourful toys and place them out of sight. Seat the child comfortably and sit opposite him. Bring out a toy and show it to the child. Hold the toy close to your face and talk to him to attract the attention. While the child is watching, cover the toy with a cloth and say, "All gone!" Wait a few seconds, then uncover the toy and happily announce, "Here it is!" Repeat with different toys. Later make the child uncover the toy himself and thus find the toy.



2. Find a toy with a bell, or make a bracelet with bells. Set the child on the floor and surround him with a variety of potential hiding places, such as soft toys and blankets. Hold up the bells for the child to see, and shake them so that he could hear. While the child is watching you, hide the bells under or in one of the hiding places. Ask the child, "Where are the bells?" One by one, lift the hiding objects and shake them. When you lift the object that hides the bells, shake it, but don't let him see the bells. Watch the child's expression change as you shake the bells. Uncover the bells and say, "There are the bells!" Play again, varying the hiding places. Later encourage the child to find the bells.
3. Organize the following play activities with the child:
 - a. Find a bright toy that will fit into your palm when closed. Lay the child on his back and allow the child to see the toy. Let the child hold the toy for a few minutes to explore it. Gently take the toy from his hands and place it in your palm. Close both hands and show the child your closed fists. Ask the child, "Where did it go?" When the child looks puzzled, open your hand and show him the toy, saying, "Here it is!" Repeat the game, alternating hands and toys. Later encourage the child to find the toy independently.

- b. Take the child to a sand pit or fill sand in a big container. While the child is watching you, hide big-sized chocolates/beads/seeds etc. inside the sand and encourage the child to search for the hidden item. Initially you could help him to find it. Later withdraw support. Initially less sand could be used so that it becomes easy for the child to search.
- c. Place coins in a container filled with plain/coloured water and encourage the child to find the coins.

Level IV: 10-12 months

Item code:- CG -7

Objective:- To develop the awareness that people and things have labels, e.g., looks at fan, light etc. when asked

Materials required:- Different toys and objects e.g. colorful ball, doll, vehicle toys, etc., magazines /picture books/story books, photographs of family members.

Activities:-

1. Provide the child with toys to play with. Name out the toys one at a time as he plays.
2. Take the child for a nature walk and describe and name things seen and talk about them. Show pictures in magazines/picture books/story books. Encourage the child to look at them. As the child looks, name the picture and talk about it. Also show photographs of the parents/family members/siblings and talk about them.
3. As you work in your house or carry out the daily routine for the child, make sure to name the objects commonly used and describe them. Whenever necessary use questioning technique; ask questions such as "What is this?" on pointing to a ball or "Who is this?" pointing to the sibling/father. Provide the answers for the child. Gradually the child will begin to realize that different things have different names.

Item code:- CG -8

Objective:- To develop the ability to learn to do something after you demonstrate

Materials required:- Kitchen utensils, balloon, ball doll.

Activities:-

3. Collect a number of noise making items from the kitchen. Place a few of them on the floor in front of the child and place a few in front of you. Take a spoon and hit on one of the item, stop for a while and encourage the child to observe and repeat the same thing. The same can be repeated by pounding, tapping, beating, shaking and rolling. Let the child imitate you each time. Initially provide help; later on slowly withdraw the help.
2. Take a colourful balloon and blow it up. Tie it with a string on to a hook on the wall. Show it so the child and allow the child to play with it for sometime. Then hit the balloon so that it moves. Encourage the child to imitate the action. A similar activity can be done with a ball (rolling it or hitting it).
3. Involve the child in doll play. Make a doll perform various day to day actions such as eating, bathing, combing, washing, sleeping etc. Create a story around this theme as you perform these actions to make the activity more interesting. Now give the doll to the child and make him perform the action one by one. For e.g., You can say, "Oh! The doll is feeling tired and sleepy, put it to sleep". Encourage the child to rock the doll to sleep. Initially demonstrate it and later allow the child to do it independently.



Level V: 13-15 months

Item code:- CG -9

Objective:- To develop the ability to relate an action to an object

Materials required:- Different toys and objects like toy car, spoon, cup, toothbrush, comb etc.

Activities:-

1. Place two-three of his favorite toys/objects on the ground. Show the action related to each object one by one, for e.g., spoon for stirring/eating, car for pushing etc. Allow the child to observe and imitate the action. Repeat the same with other objects.
2. While carrying out the daily routine of the child such as brushing, bathing, combing etc., show objects of daily use like toothbrush, mug, comb etc., and explain their use. Demonstrate the action related to each object. Later give the object to the child and encourage him to imitate the action.
3. Sing rhymes to the child showing appropriate and simple actions like 'here we go round the mulberry bush etc. When the line 'this is the way we brush our teeth' is sung, make sure to use the real tooth brush and perform the action for the child. Thus he learns to relate the toothbrush to the action of brushing. In a similar manner, show the other objects and relate it with the action.

Item code:- CG -10

Objective:- To develop understanding of cause and effect

Materials required:- Bracelet, toys like rattle, car, wind-up toys etc.

Activities:-

1. Tie bracelet which makes noise on the child's hands. Move the child's hands gently so that the child hears the sounds and attends to them. Encourage the child to move his hand on his own to hear the sound. Provide help or assistance. Gradually the child realizes that when he moves his hand, a noise is produced.
2. Provide the child with different toys. Encourage the child to move/use the objects in different ways leading to a consequence, e.g., if a rattle is shaken, a sound is produced, if a car is pushed, it moves, in one direction and its pulled in the other, if a toy is wound, it moves etc. Draw the child's attention to the cause (e.g., shaking) effect (e.g., sound). Repeat this several times and the child gradually learns the relationship between an action caused and its consequence.
3. Carry out certain routine actions such as turning on the tap or lights and explain to the child the consequence of the action i.e. when you put on the switch, the light glows, when you open the tap, water flows etc. Let the child repeat the actions and experience the consequence. Other actions that can be taken up for training could be opening or closing the door, opening a bag or a box etc.



Level VI: 16-18 months

Item code:- CG -11

Objective:- To develop the ability to identify that a picture is upside down

Materials required:- Pictures/flash cards of various animals, vehicles, people, birds etc., story book with pictures.

Activities:-

1. Expose the child to pictures/flash cards of various animals, vehicles, people, birds etc. Show him one after the other and explain about each and how it moves. Also try and match it with the real objects/models and show him how to place each in the correct position. Reverse the object and tell him how funny it looks when upside down. Make the child place these in the correct position.



2. Place the child ¹ in your lap. Hold a storybook with pictures, upside down and begin to read. See if the child can figure out that the book is held wrong and fix it. In case the child is not able to do it independently, explain to the child the correct position of the book by showing the pictures in the book.
3. Play the following game with the child. Place some of these pictures in the correct position and some upside down and encourage the child to identify the pictures that are upside down and correct the position. Use only 3-4 pictures at a time. Start with the one category (e.g., animals) at a time.

Level VII: 19-21 months

Item code:- CG -12

Objective:- To develop the ability to match two identical objects

Materials required:- Two sets of identical objects/ toys, e.g. two toy cars, two spoons, two balls, two dolls, two plates dolls etc., animals/vehicles/bird models, box.

Activities:-

1. Place two sets of identical toys/common objects, e.g., two toy cars, two spoons, two balls, two dolls, two plates, etc. in front of the child. Draw the child's attention to the attributes and explain to the child regarding which two objects are the same and why they are the same. Make the child feel and see the objects. Later mix up the objects and make pairs of the identical objects.
2. Put some identical pairs of objects on the floor, and pick up one object like a ball and encourage the child pick up another identical object that resembles the one you picked up. Later mix up these objects thoroughly and allow the child to pair the objects which are identical.
3. Keep two similar sets of animals/vehicles/bird models etc. in front of the child in two different boxes. Ask the child to pick up a model from the first box and then find a match to that in the second box.

Item code:- CG -13

Objective:- To improve the ability to match objects parts with others, e.g., round lid – bottle etc.

Materials required:- Objects which have two parts to it, e.g., bottle with lid, pencil box, and lunch box, plastic containers with removable lid etc.

Activities:-

1. Collect objects which have two removable or detachable parts to it, e.g., bottle with lid, pencil box, lunch box, plastic containers with lid, doll with removable body parts etc. Separate the parts of these and show the child that these go together and the rationale behind it. Make the child match the parts. Provide help in matching during the initial stages and gradually withdraw help. Take two items at a time. Also make sure to use boxes/containers that are grossly different at a particular point of time.
2. Mix up the objects and their parts and place them in a box. Encourage the child to find the parts and match them with the respective objects.
3. Place some objects and their parts. Along with these, also place some objects without their corresponding parts. Let the child match and tell/indicate those items that do not have their parts.



Item code:- CG -14

Objective:- To improve the ability to solve problems, e.g., obtaining objects beyond reach

Materials required:- Chocolate/biscuit, 3 small bowls in different colors, doll, chair, toys, musical wind-up toy.

Activities:-

1. Seat the child ¹ ₁ the table. Place three colored bowls on the table, facedown. Set a chocolate/biscuit in front of one of the bowls. Cover the treat with a bowl. Move the bowls around, keeping your attention on the hidden treat. Ask the child, "Where is the treat?" Let the child pick up the bowl ₁ to check for the treat. Provide help if required. If the child guesses correctly, let him eat the treat. Play again!
2. Place a doll at a certain height. Play a game where the child has to try and reach for the doll either by stretching completely and standing on tip toe or climbing a chair. Initially observe how the child will try and reach for the doll, if he does not try, show the way to reach the doll.
3. Organize the following play activities with the child:
 - a) ¹ Choose a special toy or chocolate for the child that will make the search worthwhile. Hide the item ₁ in the room in a place where it is neither too easy nor too hard to find out. Bring the child into the room and tell him that you've hidden his ₁ favorite toy/chocolate. Give the child clues regarding the location of the object and other clues by saying, "You're getting closer," or, "You're getting farther." When the child finds the item, reinforce by allowing the child to play with the item or eat the chocolate. Continue



the game by hiding a different item each time to hold his interest longer. Involve the child's sibling/friend also so that the behaviour could be modeled or shown.

- b) Wind-up or turn on a musical toy and hide it somewhere in the playroom. Have the child come into the room and try to find the toy, just by listening. When the child finds the toy, praise him. Later have him step out of the room, then hide the toy again and continue the game.

Item code:- CG -15

Objective:- To develop the ability to identify objects by category, e.g., car- toy, crow- bird etc.

Materials required:- Models of animals, fruits, vehicles, vegetables, utensils etc., basket.

Activities:-

1. Initially introduce the objects and the category to which it belongs by using models. For e.g., take a model of a dog and say that it is an animal. Similarly use the other familiar animal models and categorize them. Explain why they belong to that category in simple words, e.g., they have four legs and a tail etc. In a similar manner, introduce the other categories such as vehicles, fruits etc.
2. Take models of different fruits and vehicles, which the child is exposed to. Jumble them and place it on the ground in front of the child. Place two baskets, one with fruit picture/model, one with vehicle picture/model. Encourage the child to place all the fruits in the basket with fruit model and vehicles in the basket with the vehicle model after carrying out the eating or driving action. The same activity can be extended to other categories like vegetables, flowers, utensils etc. Initially use two categories at a time, later increase it to 3 or 4 categories. Repeat the same with the pictures.
3. Take the child out for a walk and encourage the child to identify all the objects belonging to one category, e.g., animal category. Each day the category can be varied.



Item code:- CG -16

Objective:- To improve the attention span for 3-4 minutes

Materials required:- Plastic rings/bangles, match sticks, beads, pulses, seeds, marbles, stones, coins etc. cups/containers of different sizes and colors.

Activities:-

1. Provide the child with different sized rings or plastic bangles and instruct him to insert these on a stand one by one.
2. Spill match sticks / beads / pulses / seeds of plants / marbles / stones / coins etc. on the floor and encourage the child to pick up one by one and put it in a bowl. The complexity can be increased with the age by increasing the number of items and decreasing the size of the object. The child can also be asked to transfer these later from this bowl to another bowl.
3. Use cups/containers/steel glasses of different sizes and colors and instruct to place one inside the other.

Item code:- CG -17

Objective:-To improve the auditory memory to one item (to select one picture or object correctly out of a choice of 5-6)

Materials required:- Common objects, toys of animals, flowers, plants, non transparent bag, dolls, water, basin.

Activities:-

1. Place five or more familiar objects, e.g., doll, book, leaf, pen and flower in front of the child. Now ask the child to give you an object. E.g., when you say 'doll', the child has to pick that object. If the child does not pick the right object try by saying the word again and give cues to the child. Repeat the same till he becomes familiar and later do the same with different other objects. Ensure that the child does the activity without any cues.
2. Place 4-5 familiar objects in a non-transparent bag. Say the name of a particular object in the bag. Instruct the child to put his hand in the bag, feel the object, identify it and show it to you. The child can also match it with the pictures of similar objects placed in front of the child. Encourage the child to say the name of the object.
3. Organize the following play activities with the child:
 - a) Play a 'dolly game' where in you bathe a doll. Set up the required materials such as soap, comb, toothbrush, towel etc. and instruct the child to get each item required, one by one.
 - b) In a similar manner, play a water game where the child is asked to fish out different objects, e.g., car, apple, ball, animal models etc. from a basin of water with different items inside it.



Level VIII: 22-24 months

Item code:- CG -18

Objective:-To improve the ability to dismantle and re-arrange the objects. e.g. tries to fix broken parts of toys

Materials required:- Toys which can be dismantled and rearranged, e.g., separable dolls or models of animals, vehicles, building blocks, toys, chocolate boxes, variety of boxes in different sizes nesting one inside another.

Activities:-

1. Give some toys to the child which can be dismantled and rearranged, e.g. dolls on which the major body parts can be removed, blocks, vehicles with removable parts etc. Initially you could show the process of dismantling the toys and fixing of the toys. Reverse the parts of each of the items and show that how it does not fix and thus looks funny. Later encourage the child to dismantle and rearrange them independently. Provide help whenever required.
2. Dismantle all the toys and spread it in front of the child and instruct the child to take a particular toy and match it with its the corresponding part and thus rearrange or fix it. Carry out the same with other toys.



- 4
3. Collect a variety of boxes that will nest one inside another. Try to get very large boxes and very small boxes, as well as everything in between. Place a special toy or a chocolate in the smallest box for the child to discover at the end of the game. Close the small box and place it in the next larger box; close the outside box. Continue until you've nested all the boxes inside each other, ending with the giant box. Bring the child into the room and show him the box. Ask him, "What's inside?" and help him open the box. When the child sees the next box, say, "Another box!" Lift that box out of the bigger box and ask the child to open it. Continue until you get to the smallest box, then let the child open up the surprise! Later let the child put back the lids of all the boxes.

Item code:- CG -19

Objective:- To improve memory of self and people around, e.g. tells names of self, parents and siblings

Materials required:- Mirror, photographs of family members, items belonging to each person in the family, tape recorder, cassette.

Activities:-

1. Make the child stand in front of the mirror. Pointing to the child say "This is you" (name of the child), pointing out to yourself say "This is mummy/teacher" etc. Also show individual photographs of people and ask the child to point or name the relationship or the person in the photograph. Repeat this till the child understands the concept. In addition show the family photograph and describe each person. Also provide help in identifying people around him by showing and matching the people around with the people in the photograph.
2. Refer to the child by his name especially while carrying out daily routine activities such as "(name), come and have your bath"; "(name) let's play with the ball' etc.
3. Play a game with the child. Stick different person's photographs on chairs and place them in a circle to play musical chairs. Show the photograph and describe each person and his name. Explain to the child that when music stops he has to sit only on the chair on which his photo is stuck.

Item code:- CG -20

Objective:- To develop the ability to preserve coins or notes as money

Materials required:- Money (notes/coins), purse, wallet, hand bag, piggy bank.

Activities:-

1. Expose the child to various places where we preserve/keep the money, e.g., purse, wallet, hand bag etc. Explain to the child that money should not be kept/thrown here and there, carelessly torn and should be kept in the appropriate place. Also explain that money especially coins should not be placed in the mouth, which is very dangerous. Try to inculcate the habit of saving by demonstration and modeling.
2. Take the child to different shopping places and allow him to watch the transactions between you and the shopkeeper. Show the child where you preserve/keep the money and explain that you cannot take the item purchased home unless you pay the money.
3. Buy the child a toy piggy bank and encourage him to put coins whenever you give it. Also encourage him to take out the necessary money from the piggy bank in case he wants to buy something for himself.



Item code:- CG -21

Objective:- To associate use with most of common objects, e.g., towel -to wipe

Materials required:- Common objects like brush, spoon, plate, comb etc., pictures of actions like brushing, bathing, sleeping, eating, drinking etc. from magazine, pictures of common objects, whistle.

Activities:-

1. Show the commonly used objects to the child, e.g., glass, plate, spoon, brush, fan, light etc. and explain its use by demonstrating the action involved like glass for drinking, plate for eating etc. Later on show the object and instruct the child tell/indicate its use.
2. Cut few pictures of actions like brushing, bathing, sleeping, eating, drinking etc. from the magazine and encourage the child to match these picture with the objects in the house.
3. Distribute picture cards of object and action verb (e.g., brush-brushing, towel-wiping, soap-bathing etc.) to the child, all jumbled and encourage the child to pair them on the blow of a whistle.



Level IX: 25-27 months

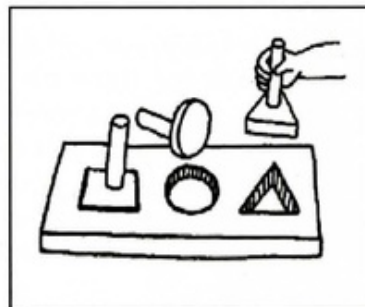
Item code:- CG -22

Objective:- To improve the ability to place triangle, circle and square in shape board

Materials required:- Shape board, sheet of colored foam board or thick cardboard, sheet of white poster board, big sized dice.

Activities:-

1. Place a shape board on the ground and give the child a triangle, circle and square to place in the shape board. Encourage the child to place the shapes in the shape board by matching the shapes one at a time. Encourage the child to feel and see the outline of each shape and differentiate it from the other shapes. The shape board can be made out of thermocol, rubber sheet, cardboard or wood etc.
2. Draw several basic shapes, such as squares, circles, and triangles, on the foam board or cardboard. Carefully cut out the shapes with the craft scissors. Place each of the cut out shapes onto the white poster board. Trace around each of the shapes with the markers. Give each of the cut out shapes to the child. Let him match up the shape with the shape on the board.
3. Stick shapes of square, triangle, and circle on the 6 faces of two dices. Each of you take a dice and throw it on the floor as in playing a game. Instruct the child to be alert and indicate when the shape on your dice and his dice matches. Also encourage the child to show at least 3 objects in the room having similar shape as that of the dice.



Item code:- CG -23

Objective:- To develop the ability to know the daily routine (different activities go on different times of the day)

Materials required:- Pictures of daily routine, doll.

Activities:-

1. Using demonstrations and pictures, explain the activities carried out during different times of the day. For e.g. after the child wakes up every morning, show him the sun rising and explain that its morning and about the actions that you will be performing on the child, e.g., brushing teeth, drinking milk, taking bath and having breakfast etc. In a similar manner familiarize the child with the other parts of the day such as afternoon, evening and night and the associated action carried out.
2. Through doll play the concept of daily routine can be taught. Perform appropriate actions on the doll and ask the child to imitate similar actions on the doll. Keep explaining when and how you perform the actions. Moreover, the child also could be given an opportunity to demonstrate the actions on self and you can guess the name of the action.
3. Introduce the child to action rhymes like ‘This is the way we brush our teeth, brush our teeth early in the morning.....’ The actions and the times of the day could be substituted appropriately.



Item code:- CG -24

Objective:- To develop the ability to use one object to represent many objects, e.g., stick as gun, phone etc.

Materials required:- Objects like toy mobile phone, pencil box, cassette, box, paper, stick, doll, stones, leaves etc., doll.

Activities:-

1. Provide the child with a toy mobile phone and let him explore it and play with it. After some time hide it without the child's knowledge. Bring it to the child's notice that the mobile is missing and let the child search for it. Then bring out a pencil box and say "Look we can use this as mobile" and pretend to press the imaginary buttons on the box and cell some one. Now give it to the child and allow him to imitate the same. Later you can take another pencil box and carry out a conversation with the child. In a similar manner the representation using other objects can be taught such as block as a car or cake, paper as a towel or a mat etc.
2. Provide the child with different objects, e.g., cassette, box, paper, stick etc. to the child. Involve the child in play and encourage him to use a particular object in as many ways as possible, e.g., a stick can be used as a gun, a bat etc. Initially demonstrate it to the child along with appropriate explanations.
3. Carry out imaginary play with a doll and in the process use different things for purposes, e.g., a stone as soap, leaves as food item, a stick as a tooth brush, comb etc.

Item code:- CG -25

Objective:- To improve the attention of the child to a task for a longer duration (5-10minutes) with increased concentration

Materials required:- Pulses, seeds, beads of different sizes, beads, stones etc, containers, picture book for coloring and crayons, thermacole beads, leaves, colourful paper, pictures, seeds, grains, chart paper, clay.

Activities:-

1. Mix all types of pulses/seeds/beads/stones and ask the child to separate them by putting them into different containers. Initially demonstrate the activity; later make the child to imitate it. After the child is through, allow him to shake it and listen to the sound produced.
2. Draw a picture in the book and encourage the child to color the picture within the boundary using different coloured crayons. Later cut out the picture coloured and apply gum on it and stick it on another chart. Use other pictures and make the child stick. Also encourage the child to stick other items such as thermacole beads, leaves, coloured paper cut out in different shapes, pictures, seeds, grains on etc. on a chart paper.
3. Playing with clay helps improve attention. Provide the child with clay and you too take some. Show how to pound, squeeze, role the clay. Let the child imitate these. Next you can make a simple face or a snake and explain these to the child. Encourage the child also to perform the activity. Provide help when required.

Level X: 28-30 months

Item code:- CG -26

Objective:- To improve the ability to put two parts of a whole together

Materials required:- Two piece picture puzzle, pictures of animals from magazines or inexpensive picture books, scissors, glue, chart paper, objects/toys which can be separated, box.

Activities:-

1. Use two piece picture-puzzles and demonstrate how to make the picture complete by joining the parts. If picture puzzles are not available, draw pictures on chart paper, colour it and then cut into two halves appropriately. Show the child to arrange the parts together to bring back the original picture.
1. Cut out pictures of various animals. Cut the pictures in half, separating the head area from the tail area. Place the head halves on the floor or table in front of the child. Pull out one of the tail halves and let him match it to the appropriate head. Provide help in matching. Have him glue each completed animal onto a sheet of chart paper. Repeat until all the animals are reconnected. The same thing can be done using picture cards of flowers, body parts and other objects. Use only 3 to 4 pictures at a time.
3. Separate the toys/objects into two parts. Place them in a box. Along with these, also place some objects without their corresponding parts. Let the child match and tell/indicate those items that does not have their parts. Provide help when required.



Item code:- CG -27

Objective:- To improve the ability of matching similar pictures

Materials required:- Two identical sets of pictures, chart paper, two boxes, two dices.

Activities:-

1. Place two sets of picture cards in front of the child. Show two identical pictures, e.g., two pictures of cat at a time and allow the child to observe its details. Later explain to the child that these two are the same. Repeat the same with the other picture cards. Now you can hold a picture card and the child can be made to show/point to a similar type of picture.
2. Draw/stick two sets of identical pictures in two columns on a chart in a random order. Encourage the child to match the pictures in the first column to that in the second column.
3. Organize the following play activities with the child:
 - a) Keep two similar sets of picture cards in front of the child in two different boxes. Ask the child to pick up a picture card from the first box and then find a match to that picture card in the second box.
 - b) Play the 'matching cards' game. Make two sets of pictures e.g., flowers, shapes, colours and sizes. Place the cards face down in rows on the playing area. The first player (the child) turns over two cards. If they match, he takes them and turns over two more cards, continuing until he cannot find a matching pair. If the cards do not match, he turns both cards face down, and the next player (your self) takes the turn. The player with the most pairs is the winner. To increase the difficulty of the activity, have the player name two common attributes (They are small, blue, flowers etc.).
 - c) Play dice game. In this game stick pictures on all the six sides of the dice. Encourage the child to throw the dice. Move the peg on the board to a similar picture as on the dice. Alternately stick identical pictures on the two dices on all six faces. Both of you can throw the dice together. Make the child identify whether the pictures on the dice match or not. If the child indicates correctly, you can give him a reward. When the pictures on both dices match, you/the child can name the picture too.



Item code:- CG-28

Objective:- To develop the ability to discriminate 'more-less'

Materials required:- Two transparent and similar containers/glasses, water/coloured liquid, plastic bottles, stones/beads/leaves/sticks and marbles.

Activities:-

1. Take two transparent containers, fill one to the brim with stones/beads/leaves and fill the other with less number of the same item. Show the child the difference in the quantity. Point out to the filled container and say that it is full and hence 'more'. Point out to the other and say 'less'. Let the child spill over the contents and also see the difference. Also, allow the child to take the contents in his hands and make out the difference. Later ask the child to point out to the respective containers on request. Make sure that the containers are of the same size and kind. The same concept could also be taught by showing many and few pictures of birds, animals, common objects etc. in picture books or number books.



2. Carry out the same activity with liquids. Fill two similar glasses with water/coloured liquid so that one is more than the other. Bring the two glasses close to each other and let the child visually examine the two glasses. Now ask the child whether the water is at the same level in both the glasses. Explain the concept of more and less using the glasses. Then ask the child to point to the glass which is having more water or vice versa. Transparent bottles can also be used in place of glasses. Teach this concept in a natural situation too. For e.g., while giving a bath to the child show the water in bucket and in the mug and ask the child which is less or vice versa. While drinking milk/juice, pour less in one and more in the other and ask the child to point out appropriately.
3. Organize the following play activities with the child:
 - a) Keep a transparent plastic bottle with two marks drawn by you on it, one at a higher level and the other at a lower level. Ask the child to fill to a higher mark when "more" is uttered by you and fill to a lower mark when "less" is uttered by you. Provide help in filling if required.
 - b) Play a game with the child. Draw two circles on the floor. In one place many sticks/leaves or any other item the child likes and in the other circle place less number of the same item. Ask him to point out the circle with many/less items on request. Later reverse roles and ask the child to request you to do the same activity. Now empty the circles and instruct the child to place many/less items in the circles.
 - c) A game of distribution can be played. Give a certain quantity (one or many) of marbles/beads/sticks to the child and you can have some too. Now ask the child to compare his and say who has, less or more.

Item code:- CG-29

Objective:- To develop the ability to make mechanical toys work

Materials required:- Mechanical toys like winding/keying toys, battery operated toys.

Activities:-

1. Provide the child with a mechanical toy like winding/keying toys and demonstrate the mechanism to make it work. Later encourage the child to make it work. Provide physical help for winding the key during the initial stages of training; gradually fade the help. Start with a toy which needs less force to wind.
2. Use toys which operate with a battery. Familiarize the child with the on-off switch/button and show what happens when the toy is switched on and off. Later give the toy to the child for independent usage.
3. Involve the child's sibling/friend in this game. Spread a few mechanical toys in front of them; some which the child is familiar with and some unfamiliar ones. Allow the children to operate the toys. The toys which the child is unfamiliar with, the other child can demonstrate. Later play a game that whoever operates the maximum number of toys will be the winner.

Item code:- CG-30

Objective:- To improve the ability to sort coins from other metallic objects

Materials required:- Coins, metallic objects like nails, caps of soft drink bottles, plastic coins etc. two sets of piggy banks and ordinary boxes

Activities:-

1. Show a few coins to the child. Show the various attributes such as shape, colour, size etc. Focus on the print on both sides of the coin. Now give it to the child and allow him to explore it. Then show other objects such as caps of soft drink bottle and show the differences between the two. Also explain the importance of preserving the coins.

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