The paper focuses on the needs of visually impaired preschoolers in various developmental areas. The importance of attachment to a significant other for establishing trust is outlined and the fact that body awareness, object permanence, range of motion, spatial awareness and orientation must be logically and actively introduced is cited. Aspects of learning needs are addressed according to two age levels (0-3 and 3-5) for the following developmental areas: sensory motor development, social emotional development, cognitive/academic functioning, communication, daily living skills/independence, and orientation and mobility. (CL)
INTRODUCTION

The special needs of severely visually impaired infants and preschoolers are more differentiated than for any other population. Without the integration through vision, these children are surrounded by sounds, smells and sensations that have no foundations for associations to take place. They do not have the advantage of the incidental learning that their sighted peers do, and are totally dependent upon others for guidance, input and motivation to facilitate comprehension through use of their other modalities. They need intervention that will promote the development of their mental processing abilities.

The visually impaired infant is at risk of staying in his own world without vision to confirm the existence of a world "out there." Attachment to a significant other is needed to establish trust in consistencies. In addition, object permanence, body awareness, range of motion, spatial awareness and orientation must be actively and logically introduced to promote "moving out." In order for the infant to begin to recognize patterns of actions, events, and things happening around him, so that anticipation can lead to participation, he must have "hands on" sequential exposure. Further, to internalize even basic motions for such things as reaching for objects on sound, or self-feeding, he needs to be "co-acted" through the process.
The visually impaired preschooler does not have visual models to promote individualization and awareness of the fact that he can be a "doer." Without vision to organize environmental clues, he needs to refine his interpretive skills to promote independence. He needs to develop a concrete foundation based on active, logical and sequential experiences, with enough reinforcement and variation for generalized application. The preschooler also needs to understand the dynamics of communication, that he can't see, and to have the experiential vocabulary to participate in meaningful dialogue with both peers and adults. He needs initial guidance to learn to interpret social situations so that he can participate, and develop the ability to initiate interactions with others. He also needs to be sequentially co-acted through various techniques that will promote development of independent self-help skills, while at the same time being aware of REAL expectations.

Assessment of blind preschoolers is extremely complex, due to the dramatic impact of severe visual impairment on the total dynamics. No assessment tool can be applied without careful consideration of the many variables influencing the results, including medical aspects, environmental influences, intervention and the assessment situation, and no test score should be considered final and conclusive. Further, although age represents a chronological time component, the corresponding experiential foundation must not be based on sighted norms.

The following is a focus on the needs of visually impaired preschoolers in various "developmental areas." It is merely a start in reminding us that the blind child deserves active participation and direct input in order to tie his world together.

While glancing at each section, it is fair to play with the following thoughts:

- Does the child have a solid REAL foundation to form associations in a new situation? Are we letting "assume loom?"

- Is he secure with the situation (himself) to accept my input and interaction?

- Is he interpreting what "I" think, or are there ambient distractors?
- Have "I" really gotten into the child...am I interpreting and responding to the child's world from the way that he perceives...or from my perceptions?
- Tactual and auditory processing takes longer than visual interpretation. Have I been patient and fair?
- Most importantly--WHAT STATEMENT IS THE CHILD REALLY MAKING by his actions and communication, or lack thereof? Is it that, from the child's world, the situation is too confusing, complex, meaningless, purposeless; that the introduction has not been complete, logical, clear, consistent, or useful; that there are certain gaps in the foundation; that verbalising does not mean understanding; that the ability to generalize requires numerous active and varied experiences, not just repetition; or that concrete experiences are vital??
- With the thought that nothing purposeless perpetuates itself, again, what statement is the child making by his action...or inaction? IF we are to incorporate CHANGE and/or GROWTH, we must understand the child's perspective and ask what purpose is being met...and address the REAL need.
- During any sharing time, am I doing things that the child could actually be doing? Am I really letting him do all that he can? Are there more ways that he can be actively involved? How? Why? When? NOW!!!
- In all, am "I" really sensitive to, and addressing this blind child's unique needs and modes of learning?

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SENSORY MOTOR DEVELOPMENT

Learning, in the absence of sight, and especially when there is no visual memory, is fragmented and disorganized. The blind or low-vision child is unlike the sighted child for whom a brief glance can provide spontaneous information about objects, actions, causes, effects, functions, qualities, quantities, variations and consistencies, in addition to assimilating related simultaneous sensory input. The visually impaired preschooler requires guidance in systematic and purposeful processing through his other senses, to be able to internalize, piece together and interpret limited information.

AGE 0 - 3

The visually impaired infant needs:

1. Trust in at least one significant other.
2. A foundation to develop basic LISTENING SKILLS.
3. Awareness of consistencies, through "active input."
4. To have curiosity and motivation to explore "out there."
5. To know range of motion and develop immediate spatial awareness.

- Basic TACTUAL PROCESSING SKILLS.
- Introduction to a variety of foods.
- Awareness of sense of smell, with real associations.
- Guidance in using any residual vision.

AGE 3 - 5

The visually impaired child needs:

1. Opportunities, time and direction in a variety of settings.
2. To refine TACTUAL and KINESTHETIC awareness.
3. To refine listening skills.
4. Guidance in interpreting concurrent information input of all modalities.
5. Purposeful practice for independent interpretation.
6. Real interaction with sighted peers.
7. To develop situational informational processing skills (Who? Why? What? How?)
8. To refine development of use of residual vision.
SOCIAL-EMOTIONAL DEVELOPMENT

Reliance of the visually impaired preschooler on others to provide a comprehensible foundation for awareness and understanding of, and interest in a world that he cannot see to organise independently, presents unique problems in ALL areas of development. However, the synergistic impact is compounded by this major sensory loss presenting social and emotional needs more differentiated than for those children with vision. The initial trust factor of consistency of people and the world, however, takes much longer to get established than for sighted babies who can maintain contact, and confirm continued existence through vision alone. In addition, for congenitally blind, crucial bonding is delayed, not only because the family is dealing with the tragedy, but also neither parent nor child is rewarded with the kind of eye contact that fosters vital interactions. Thus, the identity of self, in relationship to others, the world, and as a significant individual has a tenuous beginning.

AGE 0 - 3

The visually impaired infant needs:

1. To DEVELOP ATTACHMENT with at least one CONSISTENT ADULT.
2. To become aware of IDENTITY as a human.
3. To have EXPOSURE TO OTHERS in different settings.
4. To be guided in ways to EARN SELF-ESTEEM, and develop a GOOD SELF-CONCEPT.
5. To UNDERSTAND SEQUENTIAL PATTERNS so that anticipation can lead to participation.
6. Awareness of, and directed OPPORTUNITY and MOTIVATION to explore the world.
7. To become aware of meaningful LISTENING FOR INTERACTION CLUES.
8. To be exposed to both DIRECTED and SPONTANEOUS VERBAL INTERACTIONS, relating to immediate experiences in which the child and others are ACTIVELY INVOLVED.

AGE 3 - 5

The visually impaired child needs:

1. To be allowed to make SIMPLE CHOICES.
2. To be aware of OWN CAPABILITIES and experience REAL EXPECTATIONS of others.
3. To be aware of and guided in extinguishing INAPPROPRIATE BEHAVIORS.
4. To develop the TOOLS FOR INTERPRETING SOCIAL SITUATIONS.
5. To develop the SOCIAL SKILLS to interact with PEERS.
6. A concrete EXPERIENTIAL FOUNDATION through active exposure to be able to ASSESS situations WITHOUT DIRECT CONTACT.
7. To be WILLING TO EXPERIENCE NEW situations.
8. To know how to CONSTRUCTIVELY OCCUPY TIME independently.
9. To know how to INITIATE SOCIAL INTERACTION.
10. To be able to participate in IMITATION PLAY WITH PEERS and understand the PURPOSE and USE OF TOYS.
11. To know that MALES and FEMALES are different.
12. TIME to PROCESS.
13. The ability to ASSESS AND RESPOND to OTHERS' interactions.
14. The SOLID FOUNDATION, then opportunity and expectations to be INDEPENDENT.
15. To be PREPARED for upcoming activities, situations and events with concrete "hands on" information to provide FOUNDATION FOR UNDERSTANDING AND PARTICIPATION, if verbal description is insufficient.
16. To know that "DIFFERENT" IS ALL RIGHT.
17. To be able to express feelings.
18. To have sense of IDENTITY.
COGNITIVE/ACADEMIC FUNCTIONING

Those working with the blind and low vision infant and preschooler must understand the impact of severe visual impairment during the formative years and provide intervention that will enhance development of the child's mental processing abilities, from his unique perspective. They must be aware of the differences in learning and know how to provide logical and adequate comprehensible exposure so that the establishment of a cognitive foundation built from concrete, to manipulative, to abstract, is solid.

AGE 0-3

The visually impaired infant needs:

1. ATTACHMENT TO A CONSISTENT significant other, who believes in him.
2. Start on a foundation to understand self as an INDIVIDUAL. (BODY AWARENESS.)
3. Experiential CONSISTENCIES for OBJECT PERMANENCE.
4. CONCRETE EXPERIENCES.
5. GUIDANCE IN INVOLVEMENT and MOTIVATION to be drawn outward.
6. GUIDANCE to develop CURIOSITY about CAUSE-EFFECT and own CAPABILITIES.
7. A basic EXPERIENTIAL VOCABULARY.
8. Basic LISTENING SKILLS to enhance ability to interpret and anticipate.
9. To develop TACTUAL curiosity and basic PROCESSING SKILLS.
10. To accept by month a variety of TASTES, TEXTURES and CONSISTENCIES.
11. To develop basic OLFACTORY PROCESSING SKILLS.
12. To experience REALISTIC EXPECTATIONS of others.
13. To develop basic QUANTITY AWARENESS.
14. To develop any VISUAL AWARENESS.

AGE 3-5

The visually impaired child needs:

1. INDIVIDUATION for INDEPENDENCE.
2. TIME to process and practice, to understand and meet expectations.
3. The spontaneity of PEER MODELS.
4. To refine LISTENING SKILLS.
5. To understand CONCEPTS OF NUMBERS and QUANTITIES.
6. To understand TEMPORAL CONCEPTS. i.e. First-Last; Begin-End; Slow-Fast.
7. To be aware of SEQUENTIAL CONCEPTS.
8. To be aware of CONCEPTS OF SIZE.
9. To be able to DISCRIMINATE and IDENTIFY likes and differences, part-whole, features and functions of objects.
10. To be aware of SIMPLE CATEGORIZATION and ASSOCIATIONS to develop the foundation for GENERALIZATION.
11. To develop MEMORY.
12. A solid experiential and concrete foundation to develop the ABILITY TO REASON and do ABSTRACT THINKING.
13. To be able to IMITATE and understand IMITATION.
14. A foundation for READING READINESS.
COMMUNICATION

Relevant and appropriate language development is at risk for the congenitally blind preschooler. Acquiring the tools and understanding the dynamics of communication has many obstacles, without vision to give immediate and complete informational input. Since transactions that result from verbal exchange are not seen, the child cannot initially confirm and reinforce the meaning and effect of purposeful communication. He is in a world dependent upon others to provide tangible label associations, and until a solid language base is established by active experience, he is surrounded by meaningless words and phrases. (i.e. "Turn on the light."?) Even vital social aspects of communication are distorted, as spontaneous self-initiated exchanges are overshadowed by adult directed stimulus-response conversations.

AGE 0-3

The visually impaired infant needs:
1. An INVOLVED PRIMARY CARETAKER who will be able to "read" the baby.
2. To be able to demonstrate simple RECEPTIVE LANGUAGE, as learned through consistent CO-ACTION of appropriate response motions.
3. TIME TO PROCESS verbal information.
4. To be able to FOLLOW SIMPLE COMMANDS.
5. A CONCRETE FOUNDATION to do associative thinking.
6. To be aware of the PURPOSE OF COMMUNICATION.
7. To have LANGUAGE MODELS.
8. To have lots of directed, active, yet "NATURAL" VERBAL EXPOSURE.
9. To be provided directed OPPORTUNITIES where COMMUNICATION IS EXPECTED.
10. ACKNOWLEDGEMENT when simple NEEDS are expressed nonverbally, before language acquisition.

AGE 3-5

The visually impaired child needs:
1. Active exposure to SPONTANEOUS LANGUAGE MODELS of peers.
2. RECIPROCAL PLAY opportunities, with initial guidance.
3. To be aware of and guided in APPROPRIATE AFFECT.
4. To be able to ACCEPT CORRECTION and REDIRECTION.
5. To RESPECT others and be able to ASSESS APPROPRIATE TIME TO TALK, including facing the speaker, appropriate gestures, tone and modulation.
6. To be able to SEEK INFORMATION.
7. To be PREPARED for INTERACTIONS.
8. To be aware of and able to DESCRIBE ACTIONS and FEELINGS.
9. To be able to DISCRIMINATE for SOCIAL ORIENTATION.
10. To be able to process and apply APPROPRIATE SENTENCES AND RESPONSES.
11. To be AWARE of excessive and INAPPROPRIATE VOCALIZATIONS.
12. To have a concrete FOUNDATION for CATEGORIZATION AND GENERALIZATION.
13. To have the ability to EXPRESS PREFERENCES and make CHOICES.
14. To be able to EXPRESS NEEDS, AND ASK QUESTIONS.
15. To develop VERBAL MEMORY.
16. To be aware of the DIFFERENCE between BOTH VERBAL MEMORY and INDIVIDUAL ASSOCIATIVE THINKING.
17. To have a CONCRETE EXPERIENTIAL VOCABULARY for comfortable, purposeful communication.
DAILY LIVING SKILLS / INDEPENDENCE

Without visual models informing the preschooler of what people do independently, the child is at the mercy of others to provide meaningful input, motivation and real expectations necessary to develop even basic daily living skills. In his own world, he must have direct guidance to be drawn outward to promote awareness of, and interest in his own ability to become a doer. In effect, incidental learning will not provide the experiential foundation nor motivational components for independence. It requires co-acting and direct sequential exposure, with enough active and varied reinforcement for generalized application of the information.

AGE 0-3
The visually impaired infant needs:

1. Awareness of actions and results of INDEPENDENT MOVEMENT.
2. To be aware of consistent PATTERNS of EVENTS, ACTIVITIES AND SOCIAL INTERACTIONS, in order to anticipate when and how to participate.
3. To UNDERSTAND the ROLES OF OTHERS and his own abilities with regard to simple CAUSE and EFFECT.
4. To develop awareness of consistencies and a sense of OBJECT PERMANENCE.
5. To understand the process of FEEDING, and how to eat finger foods and use a cup INDEPENDENTLY.
6. To have the mobility skills (initially co-acted,) confidence, and motivation (directed) to become involved with the IMMEDIATE ENVIRONMENT.
7. To be able to HELP WITH DRESSING.
8. To be aware of the PROCESS OF PERSONAL HYGIENE.

AGE 3-5
The visually impaired child needs:

1. To be able to take care of TOILETING needs independently.
2. To be able to meet BASIC PERSONAL HYGIENE needs independently.
3. To be able to DRESS INDEPENDENTLY.
4. To understand BASICS OF FOOD PREPARATION, through active experience.
5. To be able to EAT INDEPENDENTLY and appropriately.
6. To be knowledgeable about, and able to participate in doing SIMPLE HOUSEHOLD ACTIVITIES.
7. To have KNOWLEDGE about the function and properties of basic UTENSILS AND TOOLS, and be able to USE them when appropriate.
8. To be able to take CARE OF PERSONAL BELONGINGS.
9. To develop the COMMUNICATION SKILLS and foundations to express needs, ask questions, and acquire information.
10. The ability to MAKE A CHOICE TO PARTICIPATE.
11. The FOUNDATION FOR INDEPENDENT GENERALIZATION in new situations.
12. To be able to identify, open, close, and USE VARIOUS CONTAINERS independently.
ORIENTATION and MOBILITY

Free mobility is based on a cognitive process. Without vision informing the child about the world "out there," spatial awareness and orientation must be actively and logically presented. Motivation to move independently is limited to comprehensible stimuli that must be interpreted without sight. However, environmental clues and verbalizations take time, associations, and reinforcement to become meaningful. Thus, self-initiated practice for proficiency and exposure through movement is limited. "Co-action" is essential.

AGE 0-3

The visually impaired infant needs:

1. To develop BODY AWARENESS, knowledge of RANGE OF MOTION and MIDLINE.
2. To bond to a significant "other" to develop the SECURITY for INDIVIDUATION.
3. To be CO-ACTED THROUGH MOTOR PATTERNS to internalize processes.
4. To be aware of MOTIVATORS, with TIME to process to move out.
5. EXPECTATIONS without over-protection.
6. To be physically directed in forming AUDIAL ASSOCIATIONS.
7. To be able to FOLLOW SIMPLE ONE STEP COMMANDS.
8. To be able to IDENTIFY BASIC BODY PARTS.
9. Exposure to CONSISTENCIES to develop awareness of OBJECT PERMANENCE.
10. To be aware of PHYSICAL QUALITIES OF OTHER INDIVIDUALS.
11. To develop CURIOSITY, and be AWARE of things in the IMMEDIATE ENVIRONMENT.
12. To understand simple WORD LABELS.
13. To adapt for, and use any RESIDUAL VISION.

AGE 3-5

The visually impaired child needs:

1. To be able to identify SPECIFIC BODY PARTS.
2. To understand DIRECTIONALITY.
3. To develop SPACIAL AWARENESS in relation to self, objects and environment.
4. To develop awareness about DISTANCE.
5. To develop BODY CONTROL.
6. To develop MOTOR SKILLS to move the body segmentally and in various settings.
7. To be able to assess and use orientation clues.
8. To understand TEMPORAL CONCEPTS. (ie. First-Last; Slow-Fast.)
9. To be able to follow 3-STEP COMMANDS.
10. To be AWARE OF SEQUENCING and develop MEMORY.
11. To be able to FOLLOW INSTRUCTIONS.
12. To have the freedom for PURPOSEFUL SELF-INITIATED MOVEMENT.
13. To have a CONCRETE EXPERIENTIAL LANGUAGE FOUNDATION.
14. To refine LISTENING SKILLS.
Learning is the product of meaningful experiences. The extent to which it takes place is influenced by numerous factors, such as:

- the individual's abilities, present at birth, or acquired
- appropriate level of exposure, based upon associative foundations established through previous experiences with time to process the information
- effective input which is logical (from the perspective of the child) facilitating associations, or stimulating and providing impact
- incentive, both positive and negative
- and practice, which is both consistent and enriching.

The important thing to keep in mind is that no learning experience is of any more value than its real associations and application to the child's life. The child is a TOTAL child, with or without vision. We reach and we teach from his PERSPECTIVE.

...Lois Harrell