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A DEVELOPMENTAL MODEL OF DISABILITIES.

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The education of children with visual impairments or blindness combined with other disabilities is increasingly recognized as one of the most compelling and challenging aspects of Special Education. We have come to recognize the multiple effects of combined sensory, neurological and/or psychological problems. Visual and movement impairments impose many obstacles on a child's ability to explore and interact with the social and physical environment. This population is so diverse, so various in all psychological and physical dimensions that it only with attention to the individual child that we can discover how best to work with him or her. When families feel that there is a future for their child, they are enabled in countless ways to put their deepest fears to rest and help us get on with the education of their children. Understanding of the processes of development enlighten the approach to the evaluation of what children have learned and are able to learn. Language and communication play a central role and provide a conceptual framework for educational interventions. Children who are able to communicate with the people around them are able to function and participate in decisions about their lives. Language and communication provide a conceptual framework for educational intervention. The power of educational intervention has never been more forcefully demonstrated than in the education children with multiple disabilities.

Visual impairments in combination with physical, movement and/or neurological disorders interfere with a child's capacity to explore and interact with the environment. Effective intervention requires encouragement of active social interaction. Children are active participants in constructing concepts of the world and developing communication and interest in environmental exploration. Deprivation of sensory information combined with movement difficulties severely limits a child's capacity to explore and interact with the environment.

Research indicates the important role of expectation, stimulation and opportunities for social interaction in the education and rehabilitation of children with multiple disabilities. Research in language and communication indicates the important role of the child in eliciting responses from adults and interacting with the environment (Vygotsky, L.S. (1986), Baldwin, D.A. (1995)). Children actively elicit linguistic responses from adults with eye contact. Communication between the child and mother is established in the earliest months of life. Interaction with adults builds adults. Studies of language development in children who are blind demonstrate the vital role of language in understanding of the world (Warren, D.H. (1994), Rowland, (1984), Perez-Pereira and Conti-Ramsden (1999)). These studies draw attention to the importance of creating opportunities for children with multiple impairments to be able to explore and influence their environments. Blind children with other impairments do not easily experience this level of mutuality.

Children who are encouraged and involved in language activities develop language even in the

absence of speech. In his autobiography, *Under The Eye of The Clock* Christopher Nolan (1987) describes how his parents created a stimulating environment that fostered his interest in language. His father had a rhyme for every occasion, eating, getting dressed, going to bed. His mother wrote letters and posted words on the wall in anticipation of pleasurable interaction. In environments where children are encouraged to interact, children with severe multiple disabilities learn to communicate and develop language. The abilities of many students with complex multiple disabilities only come to light in the context of ingenious and creative teaching. The environment plays a key role in giving children the tools for development.

Educational Programs: Language and Communication

Language development provides a model of human learning and is a conceptual framework to which educational procedures can be related. Language is a system of communication based on verbal or manual symbols. Children are active participants in their own development. In order for language to be acquired, there must be a pathway to the brain, auditory, tactile or visual. Language development is comprehensive and integrating and is interwoven with all aspects of development. It should not be treated as separate from other learning activities. Before the child can acquire a symbol of communication he or she needs to know the usefulness of communication as a form of social interaction. The child needs to know that his or her needs and wishes can be important to someone besides him or herself.

Holding the child's hand, saying his name and then talking to him to ensure that the child knows he is being addressed is vital. Children who cannot see rely on direction of voice and do not know they are being spoken unless they are spoken to directly.

Careful observation can indicate which sensory modality or combination of modalities carries the greatest meaning to the child meaning is dependent on context and usage. Speech is a motor activity. The absence of speech does not indicate lack of comprehension of language.

Assessment

Discovering how the child makes use of the information available and how he or she responds to both structured and unstructured situations is vital. Video tapes which are capable of being seen in slow motion provide us with a technology for careful observation. Every child presents a unique set of abilities and we cannot afford to make assumptions about what he or she can or cannot do.

Children should be observed in their homes and classrooms where they feel at home. Protocols for observation should be based on a description of the activity in which the child is being observed, how the activity is structured, the degree of the child's involvement, self direction and level of participation should be noted.

Children can be taught new skills and then observed to see how quickly the skill is learned and generalized is a useful technique in the identification of abilities. Children who attend to simple stories, indicate Yes or No, and respond to greetings are communicating.

The importance of communication in children's development cannot be overemphasized. All approaches must stress consistency, patience, and a high level of independence as the focus of training efforts, with the ultimate goal of developing meaningful human relationships. The capacity for learning must be respected and developed. Mental retardation or lack of capacity for learning must never be assumed.

Augmentative Communication

For children who cannot speak, augmentative communication becomes a means of using language to communicate. A variety of systems are presently available, ranging from non-electronic portable communication aids to highly sophisticated computer based speaking and writing systems. Simple systems depend on words or pictures to convey a variety of messages.

The simplest may consist of a sheet of cardboard on which pictures, photographs, objects, symbols or words and phrases are shown. Early introduction of alternative modes of communication create many opportunities for communicative interactions. Augmentative Communication allows the child to call attention, signal emergencies, answer Yes or No, provide information, make requests, carry on a conversation, express emotion, give opinions, greet people and prepare messages in advance.

Integrating augmentative systems of communication in play and social interaction provides the environment for a wide variety of communicative interactions. The more sophisticated methods of augmentative communication demand literacy and interest in the written word. Story telling, nursery rhymes, games and conversation provide many opportunities to put augmentative systems to work.

Storytelling connects the child with the world. Stories demonstrate the power of language to organize our experiences and shape our thoughts. Stories enhance the child's sense of identity and motivation. The use of colourful story charts, story ladders and storey boards encourage children's interest.

Talking about stories, retelling stories, dramatizing stories and creating their own stories encourage children to bring their own experiences to understanding stories. When children listen to stories they use their knowledge of language to interpret. Threads and connections exist between what children already know and what they bring to a story.

Developing An Interest in Language: The Importance of Rhyme & Mother Goose

Mother Goose and other forms of nonsense verse encourages children to pay attention to the sounds of language. Nonsense verse reinforces understanding of normal usage and shows children how to play with language, invent sounds and meanings and develops the notion of words as concepts. Combining different Mother Goose rhymes with a series of gestures provides a signal that enables the child to choose a particular rhyme.

Riddles also build word concepts. A child's understanding of jokes and riddles are important indicators of the level of the child's awareness of word meanings. Understanding riddles requires awareness that words have more than one meaning. Riddles are trick questions. The answer depends on recognizing the trick in the question. Riddles can be classified as phonological, syntactical or semantic. Phonological riddles are based on word sounds. What nut makes you sneeze? A cashew. Semantic riddles are based on multiple words meanings. What has a trunk but never goes anywhere? A tree. Syntactic riddles are based on syntax and grammatical relationships. What had four wheels and flies? A garbage truck. Children reveal their knowledge of riddles with their answers. Offering an explanation rather than recognizing the trick question is common. For example, in the riddle When is the ocean friendly? the child may say The ocean is only friendly in the shallow part. Recognition of the nature of the riddle depends on recognition of the trick question. The answer is When it waves at you.

Riddles and jokes demonstrate the flexibility and multiple aspects of language. Language play can also be encouraged in play situations. Children who show an understanding of riddles reveal the depth of their understanding and interest in language.

Communication Is Social Interaction

Multiple disability by itself does not account for lack of social. Some children have been so isolated they do not know how to gain attention. Success can be seen when child maintain interaction with reciprocal exchanges.

The ability to negotiate social interaction requires knowledge of social strategies. Through playful interactions, children develop a sense of self-identity and awareness of others. Problem

solving and sharing activities provide rich opportunities for development. The ability to accommodate without surrendering are the essence of social negotiation skills. Learning to share, awareness of the wishes of others, knowledge of play equipment and techniques and strategies of game playing build a solid foundation for understanding language and communication.

Summary and Conclusion

This article has attempted to summarize the critical issues in working with children with combined sensory, motor and neurological problems. In the absence of social interaction and a teaching environment, these children are subject to isolation and in many cases wrongful diagnoses.

Intervention at infancy and at the preschool level is producing dramatic results and is changing ideas of educability. Early intervention and early introduction of augmented communication, social interaction and a wide variety of language experiences create interest and foster optimum development. We can no longer accept the notion of ineducability when we see children who were diagnosed as severely or profoundly retarded learning to take care of their personal needs, to be sociable, and to communicate. The power of educational intervention has never been more forcefully demonstrated than in the education of children with multiple disabilities. These children reveal the depth and complexity of human development and inspire the very best we have to offer.

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