Training Of Sensory Organs For Language Development In Children With Hearing Impairment

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ABSTRACT

There are some visible and some invisible senses in the human body. The visible senses include eyes, ears, nose, tongue, skin and the invisible ones include vestibular input, proprioceptive input and interoceptive input. From the point of view of training for language development, visual senses are suitable. These senses are known as sight, hearing, smell, taste and touch. These five senses play an important role in the process of language development. According to a research by LD Rosenblum and his colleagues – “We acquire 83.0% knowledge by seeing, 11.0% by listening, 3.5% by smelling, 1.05% by touching and 1.0% by tasting.” In language development, it is more beneficial to use multi-sensory approach instead of uni-sensory approach. In children whose more than one sense organ is used, language development occurs at a greater and faster pace. It also depends on the fact that which sensory organ of a child is damaged to what extent. Because each sensory organ has a more or less separate role in language development. There are some children who have loss of one or more senses. Such children may fall under the category of disability. One category of disability is hearing impairment. Hearing impaired children have very poor language development due to their hearing loss. Hearing impaired children need training of all other senses along with training of the sense of hearing. That is, if instead of single-sense training, multi-sense training is given, the language development can happen in a better way. Many practical techniques are used for training the senses for language development in hearing impaired children.
INTRODUCTION

There are many sense organs in the human body. Some of the sense are visible and some invisible. The visible senses include eyes, ears, nose, tongue and skin and the invisible ones include vestibular input (balance), proprioceptive input (movement) and interoceptive input (internal). From the point of view of training for language development, visual senses are suitable and easy. Among these sense organs, eyes work to see, ears to hear, nose to detect smell, tongue to taste and skin to feel. We know the sense organs by the names of sight, hearing, smell, taste and touch respectively. Sense organs are the way of receiving knowledge through which we get information about the contents of the external world. Our five senses play an important role in the learning process. Our sense organs receive any information from the environment and transmit it to the brain. LD Rosenblum and his colleagues found in their research that “we acquire 83.0% knowledge by seeing, 11.0% by listening, 3.5% by smelling, 1.05% by touching and 1.0% by tasting.” On the basis of this research, it is found that in the acquisition of knowledge, eyes are first, ears are second, nose is third, skin is fourth and tongue is fifth. This research of LD Rosenblum and his colleagues is in relation to the acquisition of knowledge, not in relation to the acquisition of language. If we look at it in relation to language acquisition, ear has the first place. Because of the child starts hearing right after birth. These heard sounds get imprinted on his mind. These recorded sounds form the basis of the child’s language knowledge. It is only because of good hearing that the child is able to understand the subtle differences in sounds. The process of listening and speaking happens naturally in a child.

Sense organs and deaf children -

Sense organs play an effective role in the process of language development. In language development, it is more beneficial to use multi-sensory approach instead of single-sensory approach. A child who uses multiple senses benefits more than another child who does not. There are some children who have loss of one or more senses or have some disorder. Such children may fall under the category of disability. In case of disability, the learning ability of those children is also affected. It also depends on the fact to what extent which sensory organ of the student is damaged or impaired. Because of each sensory organ has a more or less separate role in language development. It is very important to have healthy sensory organs for good language development. Hearing impaired children have little or no language development due to their hearing loss. Because the role of our ears i.e. our sense of hearing is paramount in language acquisition. Therefore, it is necessary to have normal hearing ability in children.

Problem of language development in hearing impaired children -

Children learn to speak by listening. Listening skills are the main basis for the development of other linguistic skills. For example, if a child's hearing ability is normal then his primary language i.e. mother tongue develops naturally. He acquires it automatically by hearing it from the environment. He does not need to learn the primary language. After birth, he starts speaking the language which he hears continuously. He does not need to learn or teach the primary language. Yes, he definitely has to learn and teach how to read and write that language. After that he has to learn speaking, reading and writing secondary, tertiary and other
languages. But, if the child has difficulty in hearing and his hearing problem is not identified early and early intervention is not done, then his primary language also does not develop normally. The language development in that child is less or much less than that of a hearing child of the same age group.

**Role of sense organs and their training in language development** -

If a child is hearing impaired, he needs training of the sense of hearing as well as training of all other senses. That is, if instead of single-sense training, he is given multi-sense training, then language development can happen in a better way. What is meant by multiple senses is that for the development of language in hearing impaired children, not only their hearing sense should be used but their other senses like visual, olfactory, taste and tactile senses should also be used. To achieve the objectives of language development in hearing impaired children, it is necessary to know about various senses and the methods and techniques of their training.

(1) **Sense of sight** -

Eyes are the second important organ in the human body from the point of view of language development. Eyes are called the organ of sight. With the help of eyes we can see and recognize things on the basis of their form, color and size etc. When we see big objects, we also see small objects. If you look near, you can also see far. The eye is the only instrument with the help of which we gain knowledge by seeing. If there were no eyes we would not be able to see anything. That is, we will be deprived of the knowledge gained by seeing. Therefore eyes are a very useful tool for our language development.

**Activities of training for sense of sight** -

Many researches have shown that visual style is found to be predominant in children with severe and very severe hearing loss who do not get any benefit from hearing aids. Therefore, in these children, language development through visual sense is more purposeful. In deaf and hard of hearing children, eyes can be trained by doing some important activities from the point of view of language development. These are such attractive and enjoyable activities which children like to do with interest. For example, two similar looking pictures may be presented, which on normal viewing appear to be the same, but on closer inspection, many differences are visible. Children should be asked to find and tell the differences. Similarly, in the second activity, a rabbit can be made to reach his favorite food item carrot. Children should be asked to take the rabbit to the carrot by finding the right path out of many zig-zag paths. In the third activity, one is asked to join several dots, which when joined together form an attractive picture. This picture can be of any animal, plant, fruit, flower, food item etc. In the fourth activity, several pictures should be made by hiding them in one picture and children should be asked to find and tell those hidden pictures. These pictures should be such that children already understand them. So that they have to use their brain to find those pictures, but do not face any problem in identifying them. In the fifth action, there should be many boxes in one square box and letters should be written in all those boxes. These letters should be such that some meaningful words can be formed at the level of knowledge and understanding of the children. Children should be asked to make...
meaningful words by combining those letters. In the sixth activity, many objects should be made in a circle and one should be asked to sort and separate similar objects among them. Children's eyes can be trained by doing many such activities. There is a need to continuously talk to the children while doing all these activities.

(2) Sense of hearing -

Ear is our first important sense for language development. Ear is called the organ of hearing. Ears help us recognize different types of sounds. It is through these ears that we come to know whether the sound we hear is harsh or sweet, whether the sound is slow or loud, whether the sound is far or near, whether there is fear or fearlessness in the voice, whether there is sarcasm or love in the voice, whether there is respect or contempt in the voice. Whatever knowledge one acquires through listening, the ears are the means for it. Especially the oral development of the first language i.e. mother tongue happens completely through listening. It is worth noting here that deaf children are unable to hear what is spoken due to their hearing impairment. In case of not being able to hear, they understand what is spoken more in its gross form rather than in its subtle form and they do not get any benefit from hearing training. In case of non-functioning of hearing aids, deaf children cannot be included in the process of language development through the hearing aid. Only those children who do not have severe hearing impairment and who get adequate benefit from the use of hearing aids, need to be given hearing training at the initial level. Only these children can be included in the process of language development through the organ of hearing.

Activities of training for sense of hearing -

For training the organ of hearing, there is a need to work mainly at four levels, in which the first level involves identifying the sound. At this stage, they are made to practice whether there is presence of sound in their surrounding environment or not. In this process, sound is artificially generated in the child's environment. By doing this exercise repeatedly, they develop the ability to concentrate to listen to the sound. Due to continuous and gradual practice, their listening skills develop and with time they become able to tell the presence of sound. In the second level the voice has to be identified. For identification, sounds are produced from different sources and children are asked to listen to that sound. After listening to the sounds they are asked to name the source from where the sound is originating. With this activity, children become able to tell the name of the source from which the sound is being produced. In the third level, the process of differentiating the voice is done. To carry out this activity, two or more sounds are produced sequentially and children are asked to differentiate between those sounds and are also asked to tell the source of the sound. Children listen to the sounds produced and differentiate between the sounds, and they also name the sources from which those sounds are being produced. The fourth level involves developing understanding of voice. After doing the above three activities, at this stage children develop an understanding whether voice is present or not. What is the source of origin of sound and if many types of sounds are being produced then what is the difference among those sounds. After mastering this last level, the listening skills of children have
developed to a satisfactory level. The better the level of listening skills developed in children, the better their language abilities also develop.

(3) Sense of smell -

The job of the nose is to smell. Nose is also called olfactory organ. Smell is sensed through the nose. Only the nose tells us what this smell is like. Is it bad smell or fragrant, is the smell strong or mild, is the smell present only at a particular place or is it everywhere. The smell of a particular flower is like this, and that of another flower is like that. The taste of all sweets is sweet, but their smell is different. The smell of mango is different and the smell of pineapple is different. The knowledge we get through smell comes through our nose. Therefore, nose is also very important for knowledge acquisition as well as language acquisition.

Activities of training for sense of smell -

We are surrounded by many living and nonliving things in our environment. They have their own odor. We separate the things having smell as fragrance and bad smell. We call what we like as fragrance and what we don't like as bad smell. Children can train their sense of smell by using different types of substances and making them differentiate between their smell and odor. In the first activity for training the sense of smell for language development in hearing impaired children, different types of flowers, fruits, vegetables, food, liquid items, dry fruits etc. should be smelled and asked to differentiate between their smells and name them. Those whose names are not known to them, their names should be told. In the second activity, one can practice naming those objects just by their smell without seeing them. Children can also be made aware through the sense of smell that some things get spoiled after some time due to which the aroma of that thing changes into its bad smell. Here it must be kept in mind that children should not be allowed to smell certain things which are harmful for their health.

(4) Sense of taste -

The tongue gives us the sense of taste. It is only through the tongue that we know what a person's taste is like. The tongue tells us that banana is sweet, lemon is sour, chilli is pungent, bitter gourd is bitter, amla is astringent, cucumber is bland etc. If we did not have a tongue, we would remain unaware of these tastes. In this way, we get the knowledge through taste through the tongue. Hence tongue is also a means of acquiring knowledge and acquiring language.

Activities of training for sense of taste -

Whatever food we eat, its taste is salty, sweet, sour, pungent, bitter, astringent etc. While teaching language to hearing impaired children, they can develop language by making them taste things related to these tastes. In the first activity, children were shown things like salty, sweet, sour, pungent, bitter, astringent etc. and then they were made to taste those things and asked to describe their taste. In the second activity,
first items should be changed and the children should be made to taste them after hiding them and they should be asked to name those tasted items. This activity should be done again and again by changing the objects. Dalmoth can be used for salty, laddu for sweet, pickle for sour, chilli for spicy, neem tooth for bitter, bitter gourd for astringent. For this, other things similar to these flavors can also be used. In this way, language development can be done through the taste of various food items. While acquiring language through the sense of taste, it has to be kept in mind that the things to be tasted should be the things included in the children's daily diet. They should not be made to taste such things which are not edible. These can harm their health.

(5) Sense of touch -

The outer surface of our entire body is skin. Skin has the quality of touch. Therefore skin is also called sense of touch. The skin tells us by touch whether an object is hard or whether it is soft. It's smooth and it's rough. It's rough and it's flat. Its edge is sharp and thick. This touch is full of love and this is full of hatred, this touch is of our own or it is of strangers. All the knowledge gained through touch comes from the skin, hence skin is also an important external means of knowledge acquisition and language acquisition.

Activities of training for sense of touch -

While teaching language to hearing impaired children through skin, the difference between cold, hot, smooth, rough, soft, hard, wet, dry, sharp, thick, sharp, blunt etc. objects can be told by touching them. These things are opposites of each other, hence it becomes easy for children to differentiate between them. Children can be given the experience of cold and hot by touching a cold bottle filled with water and a hot cup filled with tea. Similarly, children can be told the names of other objects of cold and hot nature by touching them. For smooth-rough, lead and sandpaper, for soft-hard, cotton and stone, for wet-dry, wet and dry cloth, for sharp-rough, knife and scale, for sharp-dull, needle and nail. Apart from these objects, other objects can also be used to clarify these concepts. While teaching language through the above objects, careful monitoring is required, so that children do not get harmed and they can easily learn the language by touching them.

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