

Evaluating Methods for Teaching Orientation and Mobility with Sonicguide

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Abstract: Sonicguide (S.G.) serves the function of "an eye" for blind persons. To make most effective use of the Sonicguide, trainers must evaluate training methods. This report introduces one way of evaluating training with S.G., through the handling of miniatures and of schematic drawings.

The Function of S.G. for the Blind

Persons who are using S.G. can be divided into two groups: early, congenitally blind persons and later, adventitiously blinded persons. The type and level of their impairment requires different training methods.

Using S.G., newly blind persons must learn to make their visual images correspond to their experience when they could see. On the other hand, congenitally and early blind persons must first grasp spatial concepts, and get a sense of when they actually are. My aim in training blind persons with S.G. is to enable them to grasp their environment where they have to walk.

When I teach newly blind persons how to grasp their environment, I must evaluate them according to how much information they understand, and therefore how to deal with them. Early and congenitally blind persons must grasp spatial concepts by means of information acquired by S.G.

The Evaluation of Dealing with Information Provided by S.G.

There are five basic ways to evaluate how to teach blind persons to deal with information provided by S.G.

1. Trainer observation of how the user behaves in his/her environment.
2. Trainee oral reports on their environment to their trainers.
3. Trainee written impression of the environment.
4. Trainee expression of visual images by making miniatures to show spatial concepts via S.G.
5. Trainee expression of visual images by schematic drawings.

I would like to discuss the 4th and 5th ways indicated above.

(4) *Dealing with environmental information by the making of miniatures.* The excellent point of making miniatures is that trainees can show their environment where

they have walked. With magnets attached to the bottom, these miniatures can be easily put on, taken off, or rearranged on an iron board. The most useful miniatures are:

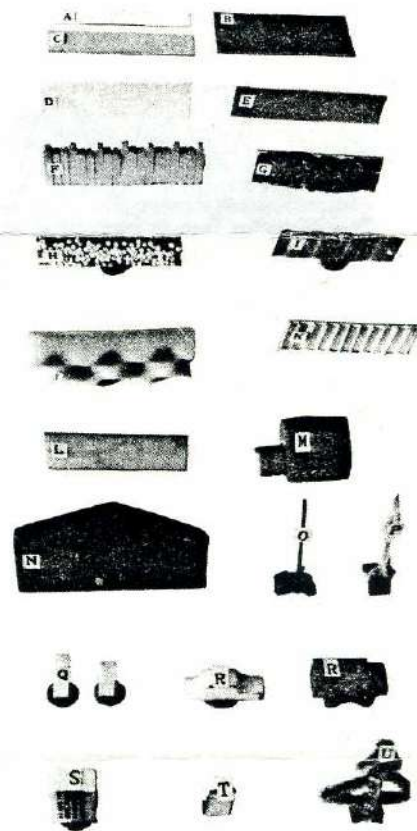
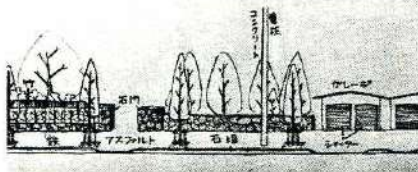
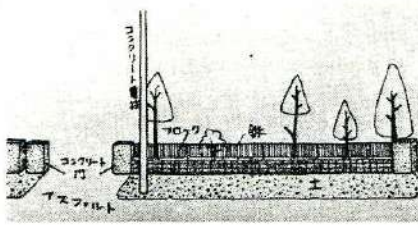
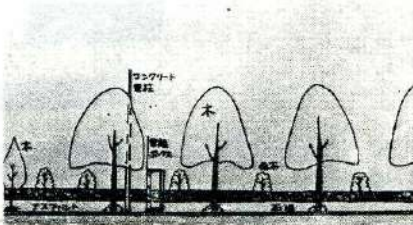
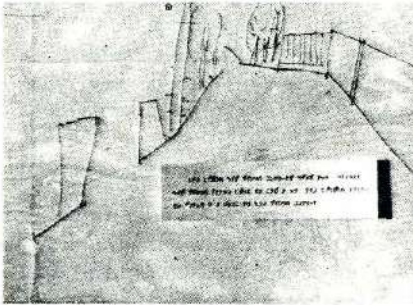
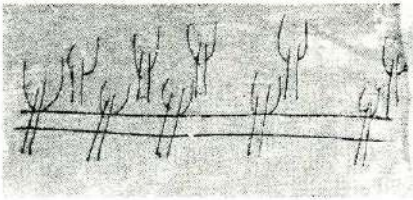


Figure 1. Examples of attachment
A-the surface of the road made of asphalt; B-the surface of the road made of ground; C-the surface of the road made of grass; D-concrete; E-blocks; F-wood; G-hedge; H-stone; I-board like waves; J-snow; K-continuous poles; L-wire netting; M-a small building; N-a big building; O-an electric pole = street-lamp; P-a street tree; Q-a gate; R-a car; S-a telephone box; T-a vending machine; U-a garden plant.

Figures 2-6



Trainees can make a miniature through information provided by S.G. For example, by carrying an iron board, if they perceive the presence of a telephone box via S.G., they can put a miniature of a telephone box on the iron board.

(5) Dealing with environmental information by the making of schematic drawings.

This method is excellent for newly blind persons, and congenital, early blind persons who can draw. Figures 2-6 represent pictures drawn by a blind man born in 1961, who lost his sight in September, 1975. To have his picture be most effective for him, he should follow these guidelines:

- Be alert to his controlled environment via S.G.;

- Eliminate information other than that provided via S.G.;
- Draw his picture of the images acquired by S.G. with raised writer. Trainers should not give suggestions, but allow the trainee to draw a picture of his own images;
- Finally, he should compose sentences based upon his picture.

Conclusion

S.G. may truly function as "an eye" for blind persons. Newly, adventitiously blind persons have many visual images from their experience of seeing in the past. S.G. can help give them meaningful words, by these images once they learn to associate with S.G. signals. They can then truly "see" their environment by understanding these words.

For early, congenitally blind persons, S.G. is a more ambiguous "eye," because the ability to discriminate images is not as clearly understood. By matching S.G. signals with schematic images; I think, however, that even totally blind persons can learn to "see" by making visual images with S.G.

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