## Canada

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The National Research Council of Canada

Research helps handicapped children become self-sufficient

(NRC) has been engaged, for over 25 years, in a biomedical engineering research program designed to assist both the handicapped child and adult. Communication and mobility are the two themes that have formed the base for the program.

It is through language that the young child interacts with and gains information about the world around him; through speech, the verbal use of language, the pre-schooler is able to satisfy his immediate physical needs, ask questions, form ideas, develop socially and cognitively, and attain a sense of individuality and self-worth.

But what of the child that cannot speak? That cannot communicate? Even though that child may be aurally and mentally astute, no viable mechanism for communication with people exists. As a result, social and cognitive development are retarded, often compounded by some physical impairment. Even pointing to a picture to indicate something that is

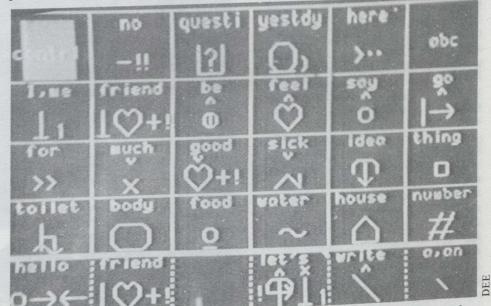
needed becomes a tremendously complicated task usually requiring assistance from an adult.

## **Communication is Bliss**

Weekly

Since visual perception is usually not impaired, however, a visual means of communication lends itself naturally to the problem. One approach which is proving quite successful is the use of a symbolic language called Bliss- (named after its Australian inventor) symbols. Instead of employing alphabetic characters as in English or French, this language makes use of a large number of graphic symbols, at times pictographically related to the concepts they represent.

The symbols represent both objective concepts, such as "house", "food", and subjective concepts such as "this", "happy", etc. During operation of the system, the child selects an item of information using input interfaces specially constructed by NRC to accommodate varying degrees of dexterity. A child with



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Thirteen years ago today...

A bronze bust of Ellen Fairclough, Canada's first wome hrst woman cabinet minister, was presented by the Zonte the Zonta Club of Hamilton to the House of Commone