



# The See More Project

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## Purpose

To find out how early it is possible to start training young children with low vision to use optical devices; to develop materials and methods for training and assessment.



## Background

There is no documented experience of early training with optical devices in Sweden, to our knowledge. Inspired by the PAVE Project in Nashville (Dr Anne Corn), the See More Project started in September 2003. New aspects of functional vision are considered such as: visual desire, visual efficiency, visual memory, visual strategy and visual confidence. Motivation is crucial, as is pre-optical training. Low magnifying telescopes are then introduced and finally, the optimal telescopes. Can children become more efficient and confident in using their devices if they start at an early age? How is this accomplished? What is the right age?



## Method

43 families with visually impaired children (no other disabilities) were invited to participate by 4 low vision clinics in southern Sweden. 23 children and their families accepted. After the first optometric assessment, 17 children between 2 and 8 years of age met our definition of low vision: usable VA no better than 0.5 LogMAR (0.32, 6/20, 20/63).

We started with home visits to get acquainted with the families and fill in questionnaires about aspects of the child's functional vision. Telescopes and near vision devices were introduced and evaluated in 15 to 25 training sessions and 3 optometric assessments. All training took place in the child's daily environment.



## Results

The children's awareness of their visual impairment has increased – with and without optical devices. The structured training improved their ease and efficiency in using devices as well as their residual vision. They also displayed a higher degree of confidence and motivation. Many have expanded their visual reach and range of strategies. The most used monocular telescope was 4x12; 11 of the 17 children found this to be the best functioning device. For 7 children, reading addition from 2 up to 20 D was introduced, trained, prescribed and found useful.

We have cooperated closely with the children and parents in developing materials and methods. The flexible "See More Bag" was developed, containing items for the assessment and joyful training of residual vision. We also created the two fictional characters "Rabbit & Blixten" in four

features: a storybook with decreasing letter size, a look and listen animated talking book, a peak-a-book for training both near and distance vision and a computer game to increase understanding of the concepts of focusing, tracking, etc. By the end of the project, this will be supplemented with a textbook on means and methods.

## Conclusions

Young children can be introduced to using pre-optical training methods. Some will be able to use optical devices from 2 to 3 years of age. We recommend starting as early as possible in order to increase aspects of functional vision such as desire and reach. Children should be introduced to focusable telescopes in active training and playing no later than 4 years of age. It is important that the use of telescopes and other devices is well integrated into the child's visual behaviour long before school starts.



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The computer game can be ordered at a price of 30 euro. More information at the home page.