

**OPTOMETRISTS  
CONTACT LENS PRACTITIONERS  
BEHAVIOURAL OPTOMETRY  
CHILDREN'S VISION**



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## **VISUAL INFORMATION PROCESSING DEVELOPMENTAL VISION THERAPY COMPUTER PROGRAMS**

At **Strachan Eyecare** we offer a variety of developmental Vision Therapy computer-based programs, including **'Piggyback'** and **'VRANT'** (short for Vision and Rapid Automatic Naming trainer), as home-based Vision Therapy options for children with visual development delays.

### **About 'Piggyback'**

**'Piggyback'** is designed to develop and enhance the essential "visual thinking skills" needed for efficient learning and many other "life skills". **'Piggyback'** has a particular emphasis on the pre-requisite visual skills required for reading.

**'Piggyback'** allows the development of these skills by encouraging your child to think for themselves through specific interactions between the child and their helper. By the continuous posing of questions from the helper (guided by **'Piggyback'**) the child is allowed to self discover.

**'Piggyback'** is not a reading instruction program. Specific reading instruction should be undertaken by teachers who are trained in this field. ***'Piggyback'** is designed to improve visual thinking skills and it therefore is expected that there will be a greater ability to learn after completing the program.*

**'Piggyback'** is divided into nine levels. Each succeeding level builds on the previous level so it is extremely important that every activity is completed before moving on.

Unless otherwise instructed by us level 1 is completed before proceeding to level 2 and in turn level 2 is completed before starting level 3 etc.

It may take between 2 and 6 weeks to complete each level of the **'Piggyback'** program. By spending 30 to 45 minutes, 5 days per week, maximum benefits should be obtained from this program. Each activity is designed so that when first attempted it can be completed, but with some difficulty and a great deal of thinking. With repeated practice however, efficiency improves, much less thinking is required and the task becomes automatic. Therefore, repeated practice of each activity is absolutely essential to develop the skills required to achieve the goals within each task. Once each goal has been reached, the skills developed should not be lost and usually will not require further practice to be maintained.

We would like to see you in-office every 4 to 6 weeks to ensure activities are understood and completed, and to answer any arising questions.

The **'Piggyback'** program costs \$255 which includes a 45 minute in-office "delivery session". There is an additional \$25 program fee to be paid at each 30 minute review session.

**'Piggyback'** is only sold under copyright, by prescription and cannot be purchased "over-the-counter".

Minimum computer requirements are Pentium 166 or better with 32 Meg of RAM running Windows 98 or higher.

## More about 'Piggyback'

'Piggyback' is divided into five sections. Each section develops specific skills. These sections are as follows :

**Sequencing, vision & language** - these activities develop the ability to *order and remember tasks*, or information, correctly. Sequencing involves relating one thing to another - when we read we need to relate words to one another, in the correct order, to obtain meaning from the words. Sequencing is essential for sounding out words, for comprehension when reading, for spelling and for remembering instructions.

**Visual thinking** - these activities develop organized high level visual thinking, especially *visual memory and visualization*. Simple codes are used initially, then visual matching is developed, followed by visual memory and visual transposition. In this section visual information is usually flashed very quickly, at 0.5 seconds, or faster. This helps to improve *visual attention span*, which is your 'bite size' of visual information. Visual memory is extremely important for reading and is needed to build a sight word vocabulary. *Visual sequential memory* is particularly important for spelling.

**Organising space** - this section develops integration of skills, especially *bilateral integration (co-ordinating the two sides of the body) and vision with movement*. It is also aimed at developing laterality awareness and confidence which should help to overcome reversals of letters and numbers and confusion of the mirror image letters like b, d, p and q, when reading and writing.

**Eye movements** - these activities help to develop good *eye movement control* which is essential for reading, handwriting and ball sports. Good eye movement control also helps to develop *sustained attention*. A component of these activities involves '*rapid automatic naming*'. This skill links vision to oral language and is very important when learning to read.

**Turning on your brain** - these activities are designed to help develop better attention and concentration. Many of the tasks here also require *integration of the different senses – vision, audition (hearing) speech and movement* - so that your child will learn to concentrate on several things at the same time.

## About 'VRANT'

'VRANT' was developed as an alternative to 'Piggyback' for students who may benefit from some Vision Therapy but who may not require as comprehensive and detailed a program as 'Piggyback'. 'VRANT' covers the same areas as described above for 'Piggyback' but it is less formally structured so that specific skill areas can be targeted more easily, and there is less emphasis on low developmental level sensory integration and movement activities.

Like 'Piggyback', 'VRANT' is individually customised for each child. It includes many eye-tracking activities and is excellent for generating tachistoscopic (briefly flashed) activities, which are generally very helpful in improving the foundation visual skills required for accurate, fast and fluent sight word reading (ie. visual discrimination, visual span, visual memory and rapid automatic naming). Phonemic awareness activities are also included. Typically 3 to 4 levels of activities are planned.

The 'VRANT' program costs \$170 which includes a 45 minute in-office "delivery session". There is an additional \$25 program fee to be paid at each 30 minute review session.

'VRANT' is also only sold under copyright, by prescription and cannot be purchased "over-the-counter".

***Both programs require adult supervision with good commitment, co-operation and compliance!***