

## **Therapy Corner**

### **Checklist for Identifying Visual Perception Difficulties in a Student's Schoolwork**

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**By: Melanie Lambert, Occupational Therapist**

Summerdale Educational Services Ltd.

London, England, UK

Visual perception is the interpretation of visual stimuli; i.e. the brain's ability to take what the eyes see and give meaning to it. Visual perceptual difficulties can severely hamper a child's ability to achieve at school considering that 80% of what students are expected to learn in school comes through visual opportunities.

In an effort to equip parents and teachers with the knowledge of how to identify difficulties with visual perception, I compiled a list of some of the informal observations one would make in a child's schoolwork with regards to each visual perceptual component. I have found this checklist to provide valuable insight into a child's functioning in the classroom situation. I hope this checklist will prove a helpful tool in your practice too!

**Form Constancy Perception:** The ability to identify, name and sort the same objects, shapes and symbols despite differences in their size, shading, texture and/or position. Form Constancy problems reflected in schoolwork:

- Difficulty recognizing a shape he/she seemingly knows well when presented in a different way to what was originally taught and learnt e.g. different material or colour
- Difficulty distinguishing between similar forms e.g. circle/oval; square/rectangle
- Difficulty recognizing that a shape in a 3D form e.g. block on a table is still the same shape in a 2D form e.g. square drawn on the board
- Difficulty projecting the idea of a shape onto something familiar to him/her e.g. a door is rectangular
- Fails to recognize letters, words or numbers presented in a different writing style
- Difficulty recognizing a word if presented in higher case as opposed to lower case
- Difficulty recognizing that a maths sum written vertically is the same as when written horizontally
- Difficulty referring to something in the textbook that has been written on the blackboard
- Limited sight word vocabulary
- Confused with similar looking words e.g. clock, clear, click, cling, clown
- Difficulty recognizing words in vertical forms e.g. crosswords
- Confuses similar letter symbols e.g. o/a; n/m; v/w; r/n

**Visual Discrimination:** The ability to see differences and similarities in shapes, patterns and objects. Visual discrimination problems reflected in schoolwork:

- Difficulty sorting out geometric shapes
- Difficulty identifying identical letters or words and may confuse letters and words that are similar

- Confusion between b/d, u/v, m/n, r/n, n/h, p/q/g
- Difficulty classifying things (struggles to see similarities and differences)
- Misreads words, substitutes or omits words
- Difficulty discriminating between symbols e.g.  $>$ ,  $<$ ,  $+$ ,  $\times$ ,  $-$ ,  $\div$
- Difficulty distinguishing money by size of coins
- Difficulty differentiating between acute and obtuse angles
- Symbols of elements confused in science

**Figure Ground Perception:** The ability to distinguish an object/word/letter/number from the background surrounding it and maintain it in the foreground for as long as is necessary. It requires the eyes to focus on and identify specific objects/words/letters/numbers between others. Figure-ground problems reflected in schoolwork:

- Difficulty keeping his/her place in reading or number work
- Loses his/her place when copying from the blackboard or textbook
- Skips sections when working through an exercise
- Unable to find objects that are sometimes right under his/her nose
- Difficulty looking up words in a dictionary or places on a map
- Difficulty picking out things in a complex picture
- Difficulty in solving mazes and drawing a straight line between two boundaries or scanning ability (skips lines when reading and unable to move smoothly from one word to the next)
- Unable to attend to individual words on an overcrowded page
- Difficulty understanding detailed pictures or diagrams
- Does not see (+) amongst (-) sums when presented on the same page (mixed computations)
- Confuses the number of the sum with the sum e.g. 3.  $4+3=$
- Distractible and disorganized (Attention jumps to any activity)

**Position in Space Perception:** The ability to understand and perceive the position of an object in relation to one's own body. Position in space problems reflected in schoolwork:

- Poor grasp of spatial terms e.g. in, out, over, above, below, through, under, between etc. (Difficulty executing instructions with these terms correctly)
- Difficulty organizing or changing his/her own body position according to instruction
- Difficulty organizing himself/herself in relation to other objects according to instruction
- Puts things away upside down or wrong way round without noticing
- Difficulty setting up games correctly e.g. board facing the right way, all cards facing up
- Reverses numbers and figures when writing e.g. 'b' and 'd', 'l' and 's', 'r' and '3'
- Confuses 'b', 'd', 'p', 'q', 'g' etc. in reading and spelling
- Reads from right to left e.g. mad for dam, tap for pat
- Poor judgement of spacing in writing
- Appears to ignore punctuation in reading and writing
- Disorganised on paper (Confuses top/bottom and left/right of page)
- Poor ability to organise his/her desk
- Reverses and rotates geometrical figures in maths

- Found to have wood or material wrong way round in needlework and woodwork subjects
- Confused direction in sports games and has difficulty positioning himself/herself
- Difficulty in map work (Confuses north, south, east, west)

**Spatial Relationships Perception:** The ability to perceive the position of two or more objects in relation to oneself and to each other. It includes the ability to identify left and right on one's own body and apply it to objects. The ability to understand direction as well as reversals. Spatial relation problems reflected in schoolwork:

- Difficulty organizing objects in relation to one another e.g. "Put the book on top of the table" or "What is on the left of the gate outside?"
- Incorrect sequencing of letters and numbers e.g. siwm = swim, 240 = 204
- Difficulty in telling time or has poor sense of time
- Reads and writes 'b' for 'd', 'p' for 'q', 'm' for 'w' etc.
- Transposes letters within a word e.g. reads left for felt, spilt for split (Relative position of letters not perceived correctly)
- Confused with the order of vowels in words e.g. oa/ao, ou/uo
- Writes letters of the same word on incorrect lines e.g. P<sub>en</sub>
- Gets word order wrong, adds or omits words in expressive writing exercises (Difficulty organizing thoughts into sentences)
- Has difficulty lining up a vertical sums correctly
- Difficulty with graph related activities
- Difficulty giving directions or following a map or diagram
- Difficulty planning and organising use of space on paper
- Poor drawing skills (Parts may be scattered or have incorrect orientation)
- Difficulty copying 2D patterns and learning how to print letters/numerals
- Difficulty constructing a 3D model from a 2D plan

**Visual Closure Perception:** The ability to identify an object, shape or symbol from a visually incomplete or disorganized presentation. It includes the ability to complete incomplete parts of a picture/figure.

**Visual Analysis and Synthesis:** The ability to see that certain parts make a whole. The understanding of the relationship between parts of a figure/word/sentence and the whole figure/word/sentence. Visual closure and visual synthesis and analysis problems reflected in schoolwork:

- Difficulty decoding unfamiliar words when reading
- Difficulty breaking up words into syllables visually
- Difficulty combining phonic combinations to build a word
- Omits parts of computation when copying from the board
- Does not complete questionnaires
- Struggles with fractions
- Omits the ends of words in reading and writing
- Non-fluent reading (Does not see whole word)
- Difficulty completing a drawing or letter if given only a part
- Only reads half a story during a comprehension
- Do not read full examination question
- Difficulty envisaging a complete article when doing construction activities

**Visual Memory:** The ability to recall or reproduce a number/letter/object/figure that has previously been seen for a short period of time i.e. to remember what has been seen.

**Visual Sequential Memory:** The ability to remember and immediately recall or reproduce a sequence of objects, letters, words or other visual symbols in the order of presentation. Visual memory and visual sequential memory problems reflected in schoolwork:

- Difficulty reproducing numbers and shapes (can't visually recall them)
- Makes errors when copying from the blackboard
- Slow in copying from the blackboard
- Difficulty learning and retaining information presented visually in cultural subjects
- Difficulty identifying words which have a similar sequences and may confuse them
- Difficulty learning the alphabet by heart
- Reverses vowel orders
- Difficulty following a sequence of events to solve a problem e.g. mathematical problems
- Sequence of words in a sentence may be incorrect
- Difficulty remembering a sequence of events correctly
- Difficulty telling a story in the correct sequence
- Gets sequences of numbers incorrect e.g.  $1459 = 1549$
- Difficulty reproducing a sequence of pictures or patterns correctly

**Visual Motor Integration:** The co-ordination and integration of muscle movements guided by the eyes (the degree to which visual perception and finger-hand movements are well co-ordinated). Visual motor integration problems reflected in schoolwork:

- Poor hand writing (difficulty integrating different movements especially in cursive writing)
- Slow motor speed in writing
- Performs poorly at sport
- Confuses left and right or other directional concepts
- Difficulty reproducing a figure, letter or numeral from the blackboard or a book
- Poor drawings in cultural subjects and geometry