

## A report on visuospatial abilities.

Sowmya Vennam\*

Department of Pharmacy, Jawaharlal Nehru Technological University, Hyderabad, Telangana, India

Accepted on September 29, 2021

### Commentary

The ability to recognise visual and spatial links among objects is referred to as visuospatial aptitude. The ability to picture items, build global shapes by locating minute components, or recognise the contrasts and similarities between objects are all examples of visuospatial ability.

#### *What do you mean by visuospatial skills?*

Drawing, buttoning shirts, constructing models, making a bed, and putting together unassembled furniture are all examples of visuospatial creation. The ability to form visual-spatial images is a crucial cognitive skill.

#### *What are the applications of visuospatial abilities?*

Movement, depth and distance perception, and spatial navigation all require visuospatial skills. Impaired visuospatial skills can lead to problems such as poor driving ability due to inaccurate distance judgments or trouble navigating in space due to banging into things.

#### *What can I do to improve my visual-spatial skills?*

##### *How Can You Boost Your Spatial Intelligence?*

- In everyday encounters, use spatial language.
- Teach kids how to use gestures to illustrate spatial relationships.
- Teach kids how to visualise with their minds' eyes.
- Play a game of matching.
- In a storytelling framework, play with blocks and create objects.

#### *What does it mean to have a high visual spatial IQ?*

A person's ability to perceive, interpret, and understands visual information in the world around them is referred to as visual-spatial learning style or visual-spatial intelligence. In essence, they are able to visualise concepts in their minds.

#### *What are the signs and symptoms of visuospatial problems?*

Reading difficulties, trouble differentiating form and colour, an inability to sense contrast, challenges in visual spatial orientation and motion detection, agnosia, and difficulty establishing visual strategies are the most common manifestations of visuospatial impairments.

#### *Visual spatial attention measures*

1. Experiments with spatial cueing
2. Experiments with spatial probes

#### **Experiments with spatial cueing**

The ability to select attention depending on spatial position is a critical aspect of visual attention, and spatial cueing experiments

have been used to test this type of selection. The goal of Posner's cueing paradigm was to notice a target in one of two locations and reply as rapidly as feasible. A cue is delivered at the start of each trial that either reveals the location of the target (valid cue) or the wrong location, misdirecting the observer (invalid cue). Furthermore, because no cue is offered on certain trials, no information about the location of the target is provided (neutral trials). There were two types of cues: a peripheral 'flicker' around the target's location (peripheral cue) and a centrally displayed sign, such as an arrow pointing to the target's location (central cue) (central cue). When the location of a target is known ahead of time, observers can detect and recognise it faster and more accurately. Furthermore, misleading individuals about the target's location causes slower reaction times and reduced accuracy compared to when no information about the target's location is given.

#### **Experiments with spatial probes**

The spatial probe (cue) causes attention to be directed to a specific location in spatial cueing activities. Spatial probes have also been employed in a variety of other tasks to determine how spatial attention is distributed.

In visual searches, spatial probes have been used to test spatial attention. The detection of a target among a set of distractors is the goal of visual search tasks. Visual searches can be guided by paying attention to the location of things in the search. Valid cues improved target recognition when compared to invalid and neutral situations.

The speed with which an observer responds to a spatial probe can also be influenced by a visual search display. A little dot emerged after a visual presentation in a visual search task, and it was discovered that observers were faster at recognising the dot when it was in the same place as the target. This indicated that the target location had received spatial attention. The inclusion of many tasks in a single experiment can further highlight the generality of spatial attention, as attention allocation to one activity might affect performance on other tasks. It was discovered, for example, that focusing attention on detecting a flickering dot (spatial probe) enhanced the likelihood of identifying surrounding letters.

#### **\*Correspondence to:**

Sowmya Vennam  
Department of Pharmacy  
Jawaharlal Nehru Technological University  
Hyderabad  
Telangana, India  
E-mail: Sowmya.vennam@gmail.com