



DISK

Digital Skills for an Ageing Europe

**Finding Waldo: Remaining sharp in your
older age**



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Summary

1. **Visual attention**
2. **Why is visual attention so important?**
3. **Finding Waldo – visual search**
4. **Why are autistic people better at finding Waldo?**
5. **How can we improve our visual attention skills?**





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Description and objectives

In this module you will learn about visual attention and visual search skills, more precisely about the visual search game “Where’s Waldo?”. Visual attention is a cognitive skill that declines with ageing but can be trained and improved like all other cognitive skills.

At the end of this module, you will be able to:

- understand the different types of visual attention
- know about how science explains outstanding visual search skills
- know about how to become beware and improve your visual attention
- learn about the benefits of Where’s Waldo games for visual attention



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Some definitions:

Visual Attention	The ability to focus on important visual information and filter out unimportant background information. It's also the ability to sustain or focus on visual information for periods of time and shift focus when necessary.
Visual Discrimination	The ability to determine differences or similarities in objects based on size, colour, shape, etc.
Visual Processing	The ability to take in and understand information you see. It also includes the speed at which you're able to take in and understand the information.





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1. Visual attention

<https://www.youtube.com/watch?v=Ahg6qcgoay4&t=12s>



Test Your Awareness: Do The Test

Attention is a behavioural and cognitive process, which means that emotional factors and individual learning experience influence what we perceive and process. The eyes are our most important sensory organ, enabling us to distinguish colours, shapes, movements, speeds, and distances, recognise people, and orient ourselves in spaces.

Visual attention consists of 3 types of attention we constantly use:

- **Selective or focused attention**
- **Sustained attention**
- **Divided attention**





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2. Why is visual attention so important?



The processing of visual information is the precondition of every learning process, as the information is stored in our memory. But above all it enables us to orientate ourselves spatially, to recognise important details and to become aware of potential dangers. Visual attention allows us to perform daily tasks without injuring ourselves. Factors significantly reducing our visual attention are stress, fatigue, or alcohol. The older we get, the more our vision and visual attention diminish, and our reaction time slows down. However, many short-term studies have shown that games, both online and traditional board games, are improving cognitive functions.





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3. Finding Waldo – visual search



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We all know the situation when we have an appointment with a friend and try to spot him within a crowd of people. Knowing the person, we will focus our attention on at least one distinctive characteristic of this friend.

Visual search is our ability to detect, discriminate and locate a target with known characteristics whose location is unknown among distractors with different characteristics.

And this is what the visual search game «Where's Waldo?» is about!

Science showed that our visual perception improves by trying to find Waldo as a result of the high attentional-cognitive demand of the task.





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4. Why are autistic people better at finding Waldo?

<https://www.youtube.com/watch?v=LrgbDXtt4UQ&t=2s>



#Artist #Drawing #Autism

This Artist Draws Detailed Cityscapes Entirely From Memory

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It has been confirmed by several research studies that people with autism spectrum disorders (ASD) generally show better performance in visual attention tasks than others. Anyone who has ever played the game "Memory" or put together a puzzle with an autistic person can probably confirm this enhanced performance. Why?

The reason is that the communication between brain regions - particularly between sensory areas and areas where internal references are created - is different in people with autism. One of the hypotheses for their superiority in visual search assumes that sensory information is coded very precisely. This focused and detail-orientated vision allows them to discriminate distractors almost immediately when searching for a target.





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5. How can we improve our visual attention skills?



Anytime we practice attention and process visual information, our brain builds neuron connections. However, the truth is that we are hardly aware of how we use the three types of attention (selective/focused, sustained and divided) in our daily life. By applying them in a concerted way, we can use them to our advantage in the future.

Techniques to reduce internal distractions, to increase concentration and to improve our reaction time are:

- **Mindfulness**
- **Focused Meditation**
- **Physical Activity**

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Learn more about it!



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