Introduction...

In the following task you need to watch these shapes carefully:

Sometimes the shapes get lighter or darker. When a *square* or a *circle* gets lighter or darker please press the green button as quickly as you can.

But: When a *triangle* changes you must **NOT** react!

Press the green button now to practise this

- ☐ adaptive
- ☑ modular
- ☑ language-free item material
- ☐ parallel test form
- ☐ conforms to the Rasch-model

- ☑ additional device required
- ☑ high level of test security
- ☑ wide norm spectrum
- ☐ links to CogniPlus
- ☑ test form available for online presentation - open mode

| | | |
|---|---|---|
| ☐ Bosnian | ☐ Bulgarian | ☑ Chinese (simplified) |
| ☑ Chinese (traditional) | ☐ Croatian | ☑ Czech |
| ☐ Danish | ☑ Dutch | ☑ English |
| ☐ Estonian | ☐ Farsi | ☐ Finnish |
| ☑ French | ☑ German | ☐ Greek |
| ☐ Hindi | ☑ Hungarian | ☐ Icelandic |
| ☑ Italian | ☐ Japanese | ☐ Marathi |
| ☐ Norwegian | ☑ Polish | ☑ Portuguese |
| ☐ Portuguese (Brazil) | ☐ Romanian | ☑ Russian |
| ☐ Serbian | ☑ Slovak | ☑ Slovene |
| ☑ Spanish | ☐ Swedish | ☑ Turkish |
| ☐ Urdu | ☐ Vietnamese | |

Neuro   Verkehr   Sport   HR

-Staff & Management Assessments
-Manufactoring & Safety Assessments
-Job & Career Placements
-Academic Testing

## Application

Assesses aspects of attention.

These aspects of attention consist of Alertness, Vigilance & sustained attention, Divided attention, Focused attention, Selective attention, Spatial attention & Neglect, Smooth pursuit eye movements and Visual scanning. For each subtest different test forms are available, enabling dimensions of attention to be assessed under different presentation modalities. There are thus separate subtests for visual, auditory or cross-modal presentation. In some subtests of the WAF automated and controlled aspects of attention are measured separately; the stimuli either become more prominent because the intensity level is increased ("popping out"), or they become less prominent because their intensity is decreased and cognitively controlled "top down" processes are then required. Both attention processes are relevant in everyday life; both can interact and both can be selectively impaired, for example as a result of brain damage, since they are based on different cerebral networks. Attention functions are important for the successful handling of the tasks that the individual encounters in daily life. They are not independent of other skills but are a constituent of many processes of perception, memory, planning and acting, spatial orientation and problem-solving. Attention functions are thus basic skills that are required in almost every practical or intellectual activity. Many neurological and psychological disorders and diseases have an adverse effect on different aspects of attention. The WAF tests are therefore used mainly in the context of clinical neuropsychological investigations, because dimension-specific indices provide both a global and a differentiated assessment of an individual's strengths and weaknesses. They are also used in recruitment (especially in the field of manufacturing & safety assessments) and in the field of traffic psychology.

## Task

### Alertness (WAFA)

The respondent reacts to simple visual or auditory stimulus material. Cues are given in the same stimulus modality or a different one (intrinsic vs. phasic alertness). A special standardization process makes it possible to measure fatigue or resilience parameters.

### Vigilance & sustained attention (WAFV)

The respondent reacts as soon as he/she notices an intensity change in a black square on the screen or in a tone.

### Divided attention

Depending on the subtest, the respondent is required to focus simultaneously on two different geometric figures or on one figure and one auditory stimulus. At certain intervals the stimuli change their intensity. The respondent reacts as soon as one of the two stimuli becomes either lighter or softer twice in succession.

### Focused attention

Depending on the subtest, the respondent is required to focus simultaneously on two different geometric figures, on a sound in a babble of voices or on one visual and one auditory stimulus. At certain intervals the stimuli change their position and intensity. The respondent reacts as soon as the defined stimulus becomes either lighter or softer twice in succession.

### Selective attention

The respondent receives various geometric and/or auditory stimuli. He/She reacts to intensity changes in predefined relevant conditions.

### Spatial attention & Neglect

Spatial orienting of attention is measured using four spatial positions in a task similar to a Posner paradigm. Peripheral (exogenous) and central (endogenous) spatial cues are used. In the neglect test stimuli are presented at various positions in the right or left visual field or simultaneously in equivalent positions in both halves of the field of vision (extinction condition).

### Smooth pursuit eye movements

The respondent tracks with his/her eyes a circle that is moving across the screen and reacts as quickly as possible when the circle becomes brighter.

### Visual scanning

The respondent searches a 6x6 matrix of similar visual stimuli and decides for every item whether a previously defined relevant stimulus exists or not.

## Test forms

1 Special diagrammatic representation of results provide detailed information about a person's reaction behavior.

## Analysis

The following main variables are scored, depending on the test form:

〉 Mean reaction time: Measure of processing speed in attention tasks.

〉 Dispersion of reaction time: Measure of the variability of attention.

〉 Error types: Measure of the maintenance of the relevant attention function.

Additional information:

〉 Indices per dimension: Measure of relevant attention function.

〉 Norm adjustment: an automatic norm score adjustment option for the representative norm sample based on the impact of sociodemographic traits.

〉 Presentation and scoring of follow-up assessments in a compact overview.

## Duration

**Alertness (WAFA):** approx. 2-5 minutes, depending on subtest.
**Vigilance & sustained attention (WAFV):** approx. 18-32 minutes, depending on subtest.
**Divided attention:** approx. 6-15 minutes, depending on test form.
**Focused attention:** approx. 10 minutes per subtest.
**Selective attention:** approx. 8 minutes per subtest.
**Spatial attention & Neglect:** approx. 6-12 minutes, depending on subtest.
**Smooth pursuit eye movements:** approx. 3-5 minutes, depending on test form.
**Visual scanning:** approx. 7-15 minutes, depending on test form.

## Valid age

Norms for ages 7+.

## Special feature

A standard USB headset is required for administration of the auditory and crossmodal subtests.
Testing via touchscreen is possible considering the current system requirements.

## Report elements

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|---|---|
| ☑ | Confidence interval |
| ☑ | Special diagrammatic representation of results |
| ☑ | Table |
| ☐ | Profile analysis |
| ☑ | Progress chart |
| ☐ | Item analysis protocol |
| ☐ | Personalized Word report |
| ☑ | Profile |
| ☑ | Test protocol |
| ☑ | Working time |