

# NESPLORA ATTENTION KIDS

# AULA



## What is Aula?

Aula is a test for the assessment of attentional processes in children aged 6-16 years.

It can assess sustained attention, visual and auditory attention, impulsivity, motor activity, distractibility and quality of attentional focus. Aula combines auditory and visual stimuli in a virtual environment with distractors common in that environment. Aula combines auditory and visual stimuli in a virtual environment with distractors specific to that environment that provide ecological validity to the assessment and increase cooperation. This means that it is as close as possible to assessing the child in his or her real environment, which maximises the external validity of the test. The immersion provided by Virtual Reality, with careful and validated control of variables, makes the environment balanced and capable of measuring minimal variations in several cognitive areas, which favours the differentiation of subtypes and the best subsequent treatment.

Aula's normative data are published in the prestigious the prestigious Journal of Attention Disorders, one of the world's leading journals in the research of attention disorders.

1

### RELIABILITY

96 auditory hits  
97 total hits  
96 visual hits  
98 X hits (Go paradigm)  
97 NoX hits (No Go paradigm)

2

### VALIDITY

Quality of representation of content and domain and convergent validity rated Excellent

3

### SENSITIVITY

Aula correctly identifies children with ADHD in 95.2% of cases and correctly discards those who do not present ADHD in 91.9% of cases.

## AGE and NORMS

Aula can be applied from 6 to 16 years of age. The normative is representative, the sample has 1326 children (both boys and girls).

## TIME

The test's length is variable, usually ranging from 18 to 22 minutes.

## ADVANTAGES

Virtual reality allows us to increase the ecological validity, decrease evaluator and administration bias and causes real immersion, increasing motivation and decreasing false negatives.



## PSYCHOMETRIC PROPERTIES

Aula is the most sensitive, accurate and specific test for the detection of ADHD in children with a high internal consistency. It has excellent diagnostic and discriminatory power with no ceiling or floor effect, high predictive value and reliability as well as high convergent validity with the Caras Test, Conners CPT, EDAH, DSM criteria and d2.

### Convergent validity

The tests with which the correlation tests and their respective averages were carried out were the Caras test, with an average of .835, the D-2 test, with an average of .754, the Conners CPT (1995) with an average of .773 and the EDAH with an average between .406 and .544 in the inattention variable.

### Sensitivity

Areces, et al., (2018b) in which 117 subjects were analysed, 90 males and 27 females all diagnosed with ADHD to verify whether Nesplora Aula distinguished between the hyperactive impulsive, inattentive and combined subtypes. The results show that each test variable allowed for an appropriate differential diagnosis for each subtype in different contextual conditions.

Rufo et al., (2012), seek to determine the discrimination capacity of the tool with children diagnosed with ADHD, 62 subjects, versus a control group of another 62 subjects. To do so, they use all the variables and obtain a correct classification of 93.5%, concluding that both sensitivity and diagnostic power are excellent.

Zulueta et al., (2018) with a sample of 407 children, 272 boys and 165 girls aged between 6 and 16 years, with 213 diagnosed with ADHD, of which 105 are inattentive type and 108 combined type, and 194 controls provide evidence of adequate external validity of the AULA instrument that allows correct classifications of healthy and pathological subjects, confirming that it provides additional information for the diagnosis of ADHD, also commenting that this is essential for the subsequent design of effective clinical interventions.

AULA not only allows us to give more objective and sensitive diagnoses with respect to our suspicions, but also differential diagnoses, with another sample of 88 students of which 50 are diagnosed with ADHD, 66 of whom are male, Areces, et al., (2018a) show that students who have low working memory and processing speed in WISC also have a worse performance in AULA.

## Standards and regulation

All of the Nesplora System tests comply with the essential requirements according to the Council Directive 93/42/EEC, its amendments according to Directive 2007/47/EC and with the essential requirements of the EN ISO 13485 management systems regulation of quality for sanitary products. These certifications allow you to use our tests and certify their value in any clinical, forensic or research process.

### CE marking



### Medical device certificate



### European Seal of Excellence



### Web de interés sanitario



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