Understanding learning assessments

Cognitive and academic testing for children and adolescents

Every learner has a different profile

A cognitive and academic assessment helps us understand how a child thinks, learns and performs in school. It explores strengths as well as challenges, so recommendations can be tailored to the child.

A learning difficulty is not a reflection of effort, motivation or intelligence.



When might an assessment help?

Reading and writing

Slow reading, poor comprehension, spelling difficulties or struggling to express ideas in writing.

Mathematics

Difficulty remembering maths facts, understanding concepts or solving problems.

Memory and pace

Forgetting multi-step instructions, losing track of work or needing much longer to finish.

Uneven performance

Strong abilities in some areas but unexpected difficulty in others, despite appropriate teaching.

Assessments consider developmental, educational, language and environmental factors, not test scores alone.

What does cognitive testing measure?

Understanding abilities behind everyday learning

Cattell–Horn–Carroll (CHC) theory offers a framework for describing different cognitive abilities. Tests sample selected skills; no single test measures every ability.

Reasoning	Solving unfamiliar problems and finding patterns.
Verbal knowledge	Understanding words, concepts and acquired knowledge.
Working memory	Holding information in mind while using it.
Processing speed	Completing simple mental tasks efficiently.
Visual-spatial skills	Understanding shapes, designs and spatial information.
Sound processing	Recognising and manipulating speech sounds.
Learning and retrieval	Learning information and recalling it later.

The pattern of strengths and needs is often more informative than a single overall IQ score.

How does the assessment work?

A collaborative process involving families, children and schools

01

Understand the concern

Discuss developmental history, schooling, language, learning opportunities and current concerns.

02

Choose the right measures

Select cognitive and academic tests based on the referral question, age and individual needs.

03

Understand the whole profile

Consider reading, writing and mathematics alongside relevant cognitive skills, classroom information and observations.

04

Explain the findings

Share strengths, areas needing support and practical recommendations in a feedback session.

Examples of assessment tools

Depending on the purpose, a psychologist may use tools such as the WISC–V for cognitive functioning and the WIAT–III for academic achievement. Additional measures may be selected when indicated.

Turning results into useful support

Assessment should lead to a clear, individualised action plan

If working memory is an area of difficulty

Break instructions into smaller steps, provide visual reminders, reduce unnecessary memory demands and teach organisational strategies.

If processing speed is an area of difficulty

Consider additional time where appropriate, manageable task lengths and accessible ways to demonstrate learning.

If literacy or numeracy skills are below expectations

Provide explicit, targeted instruction and monitor academic progress. Supports should address the specific learning skill, not only related cognitive scores.

An important distinction

A discrepancy between cognitive and academic scores is not enough by itself to diagnose a specific learning disorder. Interpretation also requires developmental and educational history, evidence of persistent learning difficulties and differential assessment.

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Source: Leanne Tran, Cognitive and Academic Testing for Children: Using CHC Theory, the DDC Model and XBASS in Practice (provided material). This independently written parent resource is not an official test manual or diagnostic guide.