



## An FAQ on cognitive assessments for children and adolescents

In this FAQ our product specialists and sales consultants share their answers to common questions about our cognitive assessments for children and adolescents.

### Content :

1. Is the FSIQ still valid and interpretable if there are significant discrepancies between the primary indices?
2. Can the WPPSI-IV be used to assess children with an intellectual disability?
3. Why should I choose Q-interactive for administering WISC-V?
4. What are the benefits of cognitive testing using Raven's 2?
5. How to use age equivalents?
6. What are the benefits of administering Bayley-4 UK on Q-global?
7. Why can I not generate a report for Raven's 2 on Q-global?
8. What tools do you suggest for assessing cognitive functions of a 7-year-old child?



Is the FSIQ still valid and interpretable if there are significant discrepancies between the primary indices?

There is no evidence that Full Scale IQ (FSIQ) becomes invalid, unreliable and uninterpretable when the difference between two scaled scores is above a certain value. Composite scores of cognitive skills, such as the FSIQ, maintains its predictive validity even if the underlying skills or scores are unevenly distributed. When there are statistically and clinically significant discrepancies in a child's cognitive profile, it means the FSIQ does not reflect a single unambiguous construct and that there is a need for more information about the child's functioning in different areas to plan appropriate interventions or make a diagnosis. Regardless of whether a cognitive profile is even or uneven, it is never recommended to base the interpretation on just one score or one source of input. Instead, best practice is to analyse strengths and weaknesses in addition to the FSIQ score and to carry out complementary assessments to evaluate other factors, such as adaptive behaviour and social-emotional functioning. Together, this information will put you in a better position to understand the child's needs. It is also important to consider the culture, language and background of a child in your interpretation of test results.



Can the WPPSI-IV be used to assess children with an intellectual disability?

Yes! WPPSI-IV is designed to assess children not only with average or high cognitive abilities, but also with weaker cognitive skills. The special group studies, carried out as part of the development of WPPSI-IV, provides evidence for that. One of the groups consisted of 73 children aged 2:6-7:6 years with mild or moderate intellectual disability. The results showed that the mean FSIQ was 63.6 for the mild severity group, with mean primary index scores ranging from 65.1 to 72.1. Corresponding scores for the group with moderate intellectual disability was even lower. Compared to the matched control group, both the mild and the moderate severity group scored considerably lower on the WPPSI-IV. Two conclusions can be drawn from these findings. Firstly, children with an intellectual disability score as expected on the WPPSI-IV. Secondly, the WPPSI-IV can be used as a valid estimate for identifying children with intellectual disabilities.



Why should I choose Q-interactive for administering WISC-V?

Q-interactive provides access to digital administration of the WISC-V using two iPads. One device is used by the psychologist to read administration instructions, score responses, take notes and control visual stimuli. The other device is used by the client to view and respond to stimuli. All test materials – including manuals, protocol and stimulus books – are gathered in one place.

There are several useful features available on Q-interactive: instructions are easily accessible on the screen; automatic reminders of age-based start points, reverse rules and discontinue rules; a built-in stopwatch; note function; and audio recording function.

Q-interactive provides reliable results and minimises the risk of administration and scoring errors. Scaled scores and index scores are calculated in real time, and it is possible to generate reports that summarise the results on different levels: item, subtest and index levels.

Assessments carried out on Q-interactive generate comparable results to assessments with traditional paper versions, suggesting a high level of equivalence between the two administration methods. Administration using iPads is also more engaging for the client too.



## What are the benefits of cognitive testing using Raven's 2?

The Raven's 2 ability test provides a quick and reliable estimate of general cognitive ability. The test has a wide age range, 4-69 years, and can be used with both children, adolescents and adults. It is based on European norm data, including data collected in France, Germany, the Netherlands, Scandinavia, Spain, and the United Kingdom.

Raven's 2 consists of colourised items that require minimal instructions and no verbal answers. As such, it is well suited for evaluating people with a different cultural background, or with expressive or receptive language difficulties.

Raven's 2 works well as a screening instrument prior to a more in-depth cognitive assessment. It is also suitable in situations where a comprehensive assessment is not necessary or feasible.

In addition to the paper version, Raven's 2 is available on the digital platform Q-global, as a short and a long version. During digital administration, a unique set of items is generated through an algorithm. This makes it excellent for follow-up assessment, as it counteracts learning effects.



## How to use age equivalents?

Age equivalents indicate the average age in months at which a given score is considered to be typical performance. They are useful for describing a child's level of functioning in relation to the typical level of functioning of children of the same age. This makes age equivalents relatively easy for parents or other caregivers involved to understand. For example, age equivalents can be used when testing a child whose age is outside the norm group.

However, there are some methodological limitations. For example, age equivalents do not say anything about how the child has performed compared to their peers. We recommend focusing primarily on the scale and index scores and interpreting age equivalents with caution and clinical experience.



What are the benefits of administering Bayley-4 UK on Q-global?

First and foremost, it's a personal preference whether you want to use the paper version or the digital version. However, there are a number of useful features on Q-global that facilitate the administration of Bayley-4 UK. As a psychologist, you don't have to calculate the child's test age and you can easily adjust for prematurity. Start points, reverse rules, and discontinue rules, are automatically activated when relevant, and scaled scores and index scores are generated in real time. This saves time and minimises the risk for errors. In addition, each item on Q-global includes images and instructions to help you administer and score the item correctly. Finally, the digital Bayley-4 version includes a filter function, allowing you to sort items for a better overview.



Why can I not generate a report for Raven's 2 on Q-global?

If you are unable to generate a report for Raven's 2 on Q-global, this is likely because one of the valid administration criteria have not been met. The status of the test on Q-global will only change to "Ready to generate report" if the following criteria are met:

- all items were completed within the time limit,
- at least 16 items were completed and the discontinue criteria was met (six consecutive scores of 0) within the time limit, or
- at least 16 items were completed and the entire time limit was reached.

For example, if you correctly ended the test when the time limit was reached but the examinee had not completed 16 items, you will not be able to generate a report. In such a scenario, a report can only be generated after a delay of 24 hours or if you fill in six consecutive score of 0. If a test is paused before the time limit is reached due to, for example, technical issues or a short break, the test can be resumed at a later date. However, this must be done within seven days, for the results to be reliable and for generating a report. Remember to end the test when the time limit is reached, as this will not occur automatically.



## What tools do you suggest for assessing cognitive functions of a 7-year-old child?

To assess cognitive functioning in children aged 7, there are a range of assessments you can choose from. A few examples are

- [WISC-V](#)
- [WPPSI-IV](#)
- [WNV](#)
- [Raven's](#)

Which of these instruments you choose depends on the child's profile and the purpose of the assessment. For example, if you suspect significant cognitive difficulties in a young child, it may be more appropriate to choose the WPPSI-IV. The stimulus material is more engaging for younger children, and the subtests are shorter and cover a wider range of easy items, meaning the child won't be faced with items that are too difficult from the start. If the child appears to have an average or high level of intellectual functioning, the WISC-V will be better at capturing the child's intellectual ability.

If the child has a language or hearing impairment or is a non-native speaker, the WNV will be a good choice. The WNV assesses general cognitive functioning but does not require any verbal responses and the test instructions are designed as images. Another non-verbal measure of cognitive functioning is Raven's 2. It gives you a quick and reliable estimate of a child's abstract reasoning abilities.

By considering both the child's profile and the features of the assessments, you will avoid the risk of a floor effect (the effect observed when there are not enough easy items to differentiate between children with difficulties) and a ceiling effect (the effect observed when there are not enough difficult items to differentiate between the high performing children). It will give you more reliable results and reduce the strain on the child from lengthy assessments.