



Q-interactive®

# User Survey on Q-interactive Examinee Behaviour

## Usability Findings

Mark H. Daniel, PhD  
Senior Scientist for Research Innovation

November 2013



Pearson

## Introduction

Pearson recently conducted the first of a series of surveys of Q-interactive users to gather their observations about how the assessment system is working. User feedback can have several important benefits.

- Reports such as this can provide the Q-interactive users with timely information about patterns in the behaviours and responses of examinees of different ages, demographic characteristics, or reasons for referral.
- Learning about the experiences of a large number of users can help individual practitioners interpret their own clinical observations and be confident in making decisions about using Q-interactive with particular clients.
- Regular feedback gives the Q-interactive developers insights about areas for possible enhancement of the system.

This initial survey focused on practitioners' perceptions of whether the Q-interactive format affects the test-taking behavior of children and adolescents, with a special emphasis on examinees being evaluated for particular clinical conditions. WISC-IV was the first child/adolescent assessment to become available on Q-interactive, in August 2012, 14 months before this survey was conducted. Other instruments for children and adolescents have since been added (D-KEFS, NEPSY, CMS, and WIAT-III). Although this survey was directed to WISC-IV users, the questions were not limited to that instrument.

Equivalence of scores obtained from Q-interactive and paper versions of the same tests has been largely demonstrated in a series of empirical studies (see Q-interactive Technical Reports available under the Research tab at [Pearsonclinical.co.uk/qireport](http://Pearsonclinical.co.uk/qireport)). The feedback from users presented here should be considered in light of the general finding of score equivalence between modes of administration.

## Procedure

In October 2013 an email invitation to take part in an online survey was sent to 247 current Q-interactive users who have administered WISC-IV on system. Ninety-five of the practitioners responded, for a response rate of 38%. The survey included the following questions:

1. How long have you been using Q-interactive?
2. What age groups do you use Q-interactive with? (5 to 9, 10 to 18, 19 to 50, 51+)
3. *For respondents who use Q-interactive at ages 5–9:*
  - a. Have you noticed a change in how engaged your clients, aged 9 and younger, are during the assessment session when using Q-interactive? If yes, please explain.
  - b. Do you find that your clients aged 9 and younger respond differently to stimuli shown on the iPad versus paper than older clients (if applicable)? If yes, please explain.
4. *For respondents who do not use Q-interactive at ages 5–9, but use it at ages 10–18:*
  - a. Have you noticed a change in how engaged your clients, aged 10 and older, are during the assessment session when using Q-interactive? If yes, please explain.

5. *The following questions were asked for each of five diagnostic groups: ADHD, autism, developmental delay, intellectual disability, and learning disability:*
- a. Do you use Q-interactive with clients diagnosed with [condition]?
  - b. If yes:
    - i. Do you find that clients diagnosed with [condition] respond differently to stimuli shown on the iPad® versus the paper and pencil tests? If yes, please explain.
    - ii. Please describe other nuances you have observed when using Q-interactive with clients diagnosed with [condition].
6. Have there been any clients with whom you have had difficulty using Q-interactive? If yes, please explain.

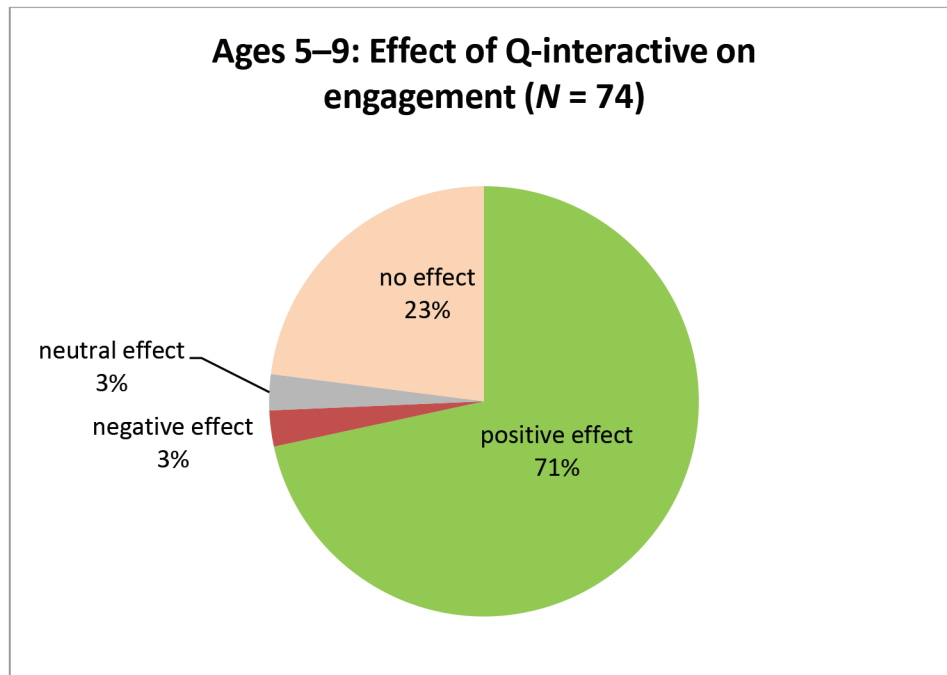
## Results

About two-thirds of the respondents (68%) had been using Q-interactive for three months or less, whereas 11% had used it for nine months or more. Almost all of the practitioners used Q-interactive with examinees ages 5–9 (82%) and 10–18 (94%). About half (45%) used Q-interactive with ages 19–50, and 19% used it with examinees ages 51 or older.

### Results by Age Level

#### Ages 5–9 (59 respondents)

- Engagement: Of the 79 respondents who use Q-interactive at ages 5–9, 74 answered the question about whether they had noticed an effect of Q-interactive on the children’s level of engagement. Of those, 77% reported observing an effect. The following is the breakdown of the effects reported by these individuals:
  - The great majority (91%) described the effect as positive (e.g., “more engaged,” “more attentive,” “increased interest,” “more willing to respond,” “more focused”).
  - Two respondents (4%) reported a negative effect (“more distracted and want to play with the computer,” “some become preoccupied trying to get the items to light up”).
  - Three respondents (5%) made neutral comments (“they like to push the buttons that light up—sometimes this is good, but sometimes distracting,” “one low-functioning child said we were playing



- Response to iPad® stimuli: Of the 69 who expressed an opinion, 38% said that children responded differently to stimuli when presented on Q-interactive, rather than on paper. There were diverse descriptions of the nature of the difference, most of which were repetitions of the greater engagement reported in response to the previous question. However, some responses related specifically to how children responded to the presentation of stimuli, such as:
  - less distracted by turning of pages, etc.
  - they find it easier to do
  - they try to pick multiple options more frequently
  - sometimes they try to play with it by checking out what happens if they push multiple responses
  - less impulsive
  - the delivery is smoother and more familiar to them

### **Ages 5–9 (59 respondents)**

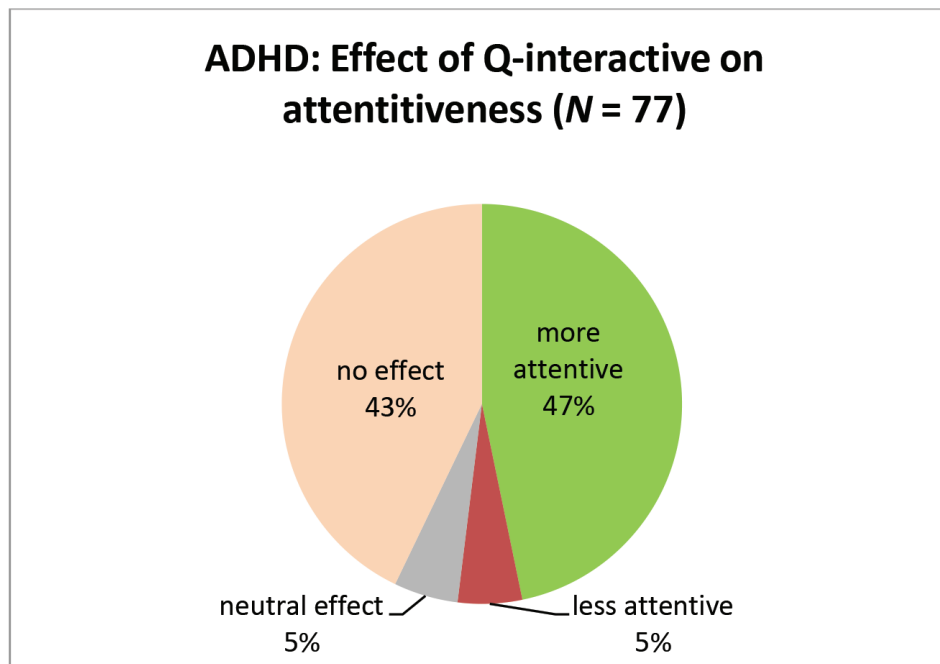
- *Engagement:* About half (7 of 15, or 47%) reported that Q-interactive affected the examinee's level of engagement, and 100% of these respondents described the effects as positive: "much more engaged," "more interested," "more comfortable," "very motivated." There were no reports at this age level of examinees being distracted or wanting to treat the iPad® as a toy or game.

## Results by Clinical Group

Although this survey was intended to focus on the use of Q-interactive with children and adolescents, the questions about users' experiences with individuals diagnosed with particular clinical conditions were not age-limited. The following information is based, in part, on users' experience with adult examinees.

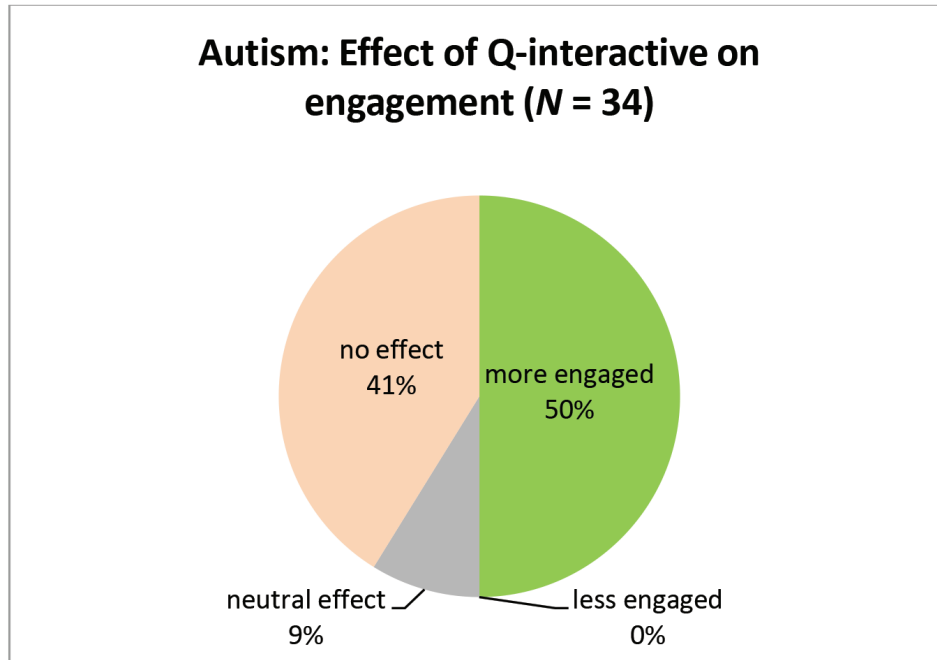
### ADHD

Of the 77 respondents who had used Q-interactive with individuals with an ADHD diagnosis, 57% said that such examinees responded differently to stimuli presented with Q-interactive than with paper. Out of those who thought Q-interactive had an effect, 82% reported that examinees were more attentive, 9% said they were less attentive, and 9% said that the effect was neutral or inconsistent.



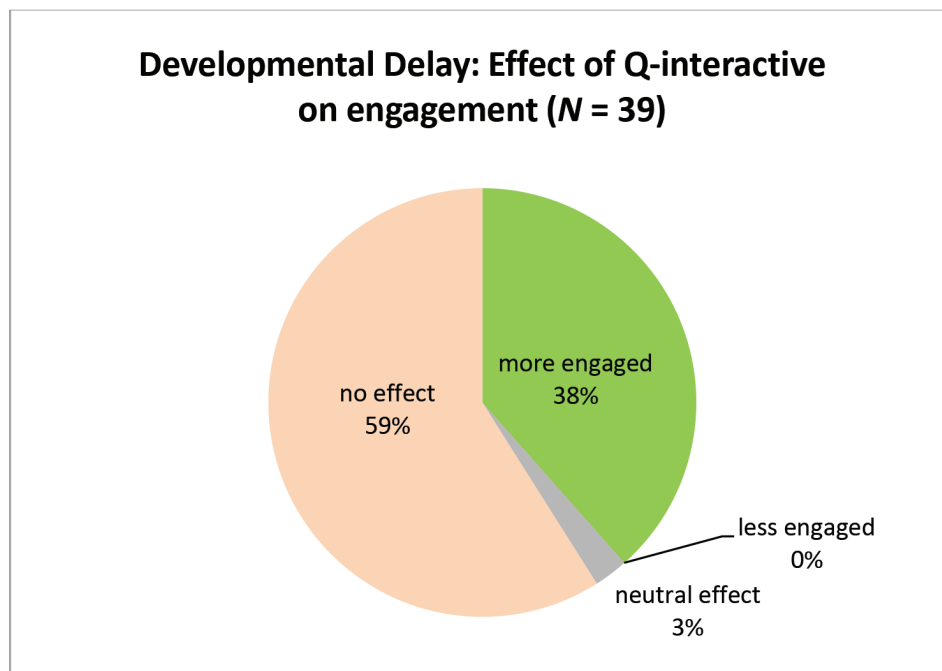
## Autism

Of the 34 respondents who had used Q-interactive with individuals with an autism diagnosis, 59% reported that presenting stimuli using Q-interactive had an effect on examinee behaviour. Of these, 85% said that examinees were more engaged and the other 15% said that the effect was neutral or inconsistent.



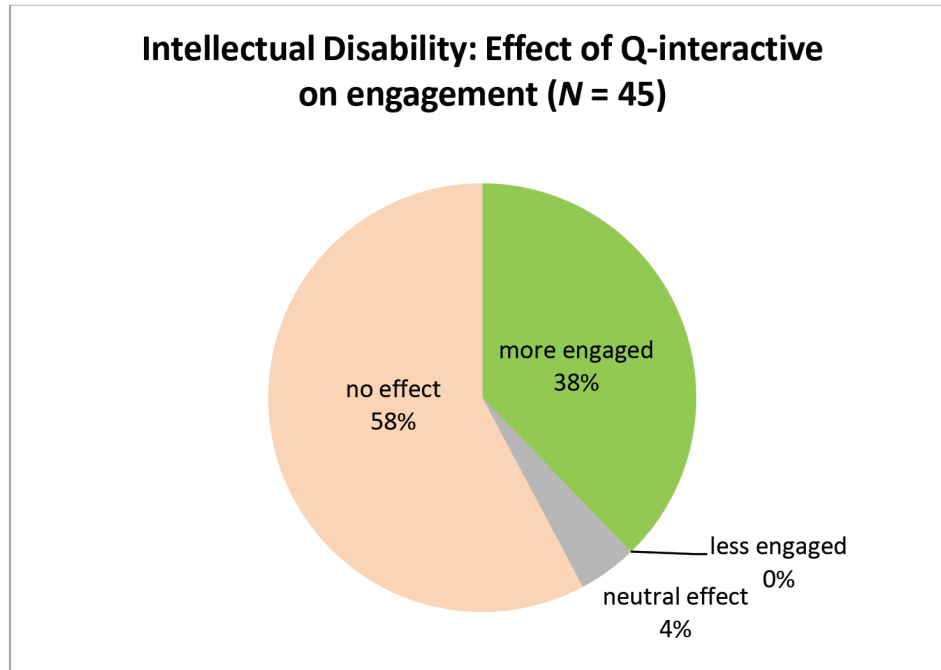
## Developmental Delay

Of the 39 respondents who had used Q-interactive with individuals diagnosed as developmentally delayed, 41% reported that presenting stimuli using Q-interactive had an effect on examinee behavior. Of these 16 respondents, 15 (94%) said that examinees were more engaged, and the remaining respondent said that the effect was neutral or variable.



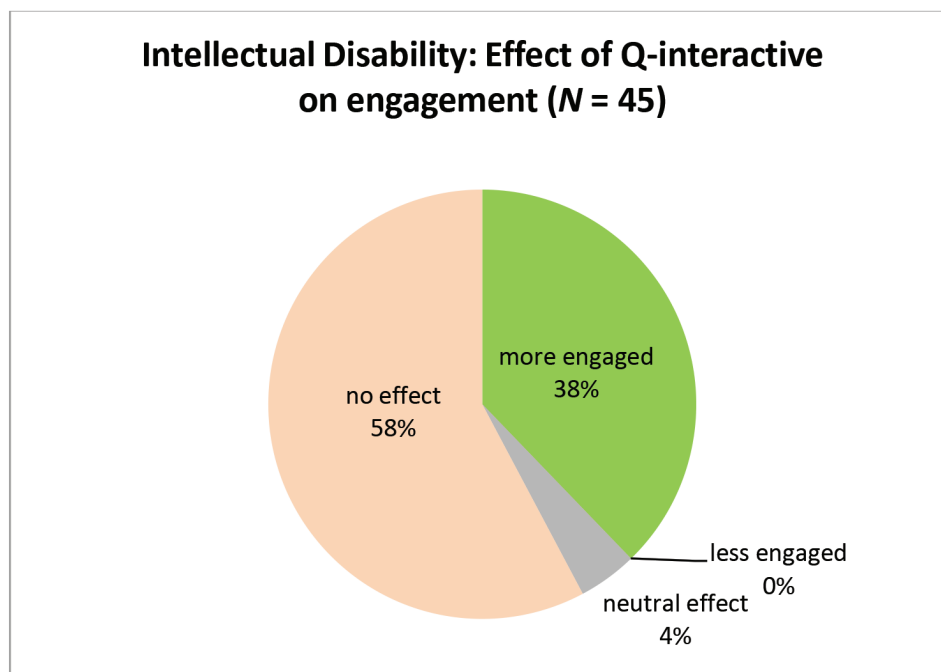
## Intellectual Disability

Results for this group were nearly identical to those for developmental delay. Of the 45 respondents who had used Q-interactive with individuals diagnosed as intellectually disabled, 42% reported that presenting stimuli using Q-interactive had an effect on examinee behavior. Of these 19 respondents, 17 (89%) said that examinees were more engaged, and the other two respondents said that the effect was neutral or variable.



## Learning Disability

Of the 79 respondents who had used Q-interactive with individuals with a diagnosis of learning disability, 39% reported that presenting stimuli using Q-interactive had an effect on examinee behaviour. Of those who reported an effect, 94% said that examinees were more engaged, and the other two respondents said that the effect was neutral or variable.



## Difficulty Using Q-interactive With Particular Types of Examinees

Of the 95 respondents, seven (7%) reported that they experienced difficulty using Q-interactive with specific types of examinees in the child/adolescent age range. These reports were distributed across several diagnostic categories:

- ADHD (3)
- Developmental Delay (1)
- Gifted (1)
- TBI (1—age not indicated)
- Obsessive (1—age not indicated)

The larger number of reports for examinees with ADHD may partly reflect the fact that the ADHD sample was about twice as large as the samples for autism, developmental delay, or intellectual disability. However, the learning disability sample was about as large as the ADHD sample, and there were no reported difficulties in that group.

In addition, there were four reports of difficulty using Q-interactive with adults:

- College age (1)
- Alzheimer's or dementia (1)
- Older (2), due to anxiety about breaking the tablet or "doing it wrong," or possible malingering

## Additional Feedback

There were many comments that examinees were more engaged with the assessment process because Q-interactive seemed more game-like. Most of these stated a positive effect, but there were a few reports of children being distracted by their desire to use the tablet to play games. There were 3 such comments (4%) regarding examinees ages 5–9 in general, 4 (5%) regarding children with ADHD, and one each for autism, developmental delay, and intellectual disability.

## Summary

In this survey of 95 practitioners who have administered WISC-IV using Q-interactive, there was a high incidence of reports that Q-interactive either increased examinees' engagement and attention, or had no effect. Increased engagement appeared to be more frequent for younger than older examinees, with about 75% of respondents reporting it at ages 5–9 and about half reporting increased engagement at ages 10–18. Among the clinical groups of all ages, increased engagement or attention was often reported, particularly for ADHD and autism (about half of respondents in each case). About 33% of respondents also reported this for those with developmental delay, intellectual disability, and learning disability. There were no reports of decreased engagement or attention in four of the five clinical groups; however, decreased attention was reported by about 5% of respondents for the ADHD group.