Case Study 3: William

William is 11 years and 5 months old, a Year 6 pupil within a class of very mixed abilities and varied social backgrounds. He receives only regular educational teaching in his state school. William is well-spoken, verbally fluent, and has a sunny nature, a wonderful sense of humor, and wide-ranging general knowledge. William is the youngest child in his family; he has a 14-year-old brother who is "slightly dyspraxic," has handwriting difficulties, and has been referred to a psychotherapist. William's father is a university law lecturer, intelligent, and slightly dyspraxic. His mother is a commercial manager. William was previously evaluated by a private psychologist for dyspraxia and has motor problems with writing and with quickly marshalling his thoughts.

William attended a nursery school for 2 years before entering Year 1 at 5 years old. His parents stated that there were no concerns about him as a pre-school child**.** When William was in Year 1, the school identified his high ability; a specialist assessed him and found that he had high language ability.

William is a top debater, a mature, avid reader, demonstrates leadership qualities, and has shown a passion and strong aptitude for creative writing, mathematics, and music. He is bright, learns very quickly, and needs only to concentrate to grasp new concepts. He is bored promptly by work that is too easy and does not require any of the repetition built into the national literacy and numeracy strategies. He experiences significant tension, especially when he feels tired. He shouts, screams, and throws objects when he is overstretched. His teacher reported, "In terms of his ability, I feel we have not yet seen just how much William could do if he were not so very anxious about failing." His mother stated that he was suicidal at one point when he lost control following a misdiagnosis for attention-deficit hyperactivity disorder (ADHD). A psychiatrist prescribed Ritalin to modify his hyperactive behavior, but in fact, it made him hyper-anxious. The disturbed behavior he exhibited while reacting to Ritalin brought him into conflict with his school; he was withdrawn and became depressed, after which he changed schools.

All of the sources stated that William is "a very popular boy in the class and he frequently leads activities both during breaks and during lessons." His teacher reported that he has high mathematical abilities, and exceptionally high ability in language and science. William plays the piano at school assemblies and has begun peer-tutoring another boy at lunchtime. In contrast, it was reported that William was, however, slow to lace up, put on shoes, dress, and organize himself, and he needs to plan sequences of action.

William obtained a Full Scale IQ of 124 on the WISC-III^{UK}. This ranked him at the 95th percentile, placing him in the "superior range" of intelligence. Of particular interest was the 44-point discrepancy between his Verbal and Performance IQ Scales scores. William's Verbal IQ Scale of 140 was at the 99.6th percentile level, which falls within the "very superior range,". In

contrast, his Performance IQ of 96 was at the 39th percentile, which falls within the "average range." His subtest scores in the Verbal and Performance domains suggest that two different students took the test: one average and one gifted. The assessment indicated that the contrast between his superb verbal skills and his weaker coordination and slower processing speed for visual skills is highly significant and sufficient to cause him incredible frustration in class. Coding was the most critical learning block.

A dynamic assessment method was used to determine whether William exhibited high potential in mathematics. He was given pre- and post-tests that were derived from the Written National Standardised Mathematics Test for Year 6 (2000 and 2001 versions). The pre-test consisted of 11 questions, 5 of which were challenging geometry, problem-solving, and linear equations questions. When he was given the pre-test, William looked at the questions and, without reading any of them, said, "I cannot do it; these are so difficult." The questions were read to him orally, and this encouraged him to begin answering them. He answered eight questions correctly, but could not answer the linear equation question and refused to read or answer the rest as he became tired. It was clear that William tended to answer questions mentally without writing down the method for solving the problems.

A day later, William received a 1-hour lesson focused on advanced geometry and problem-solving, which he had found difficult on his pre-test. In the one-to-one teaching session, he listened carefully to the teacher and asked several questions about using various methods to solve mathematical problems. Notably, individualized teaching has been proven to be a suitable method for engaging William and maintaining his concentration. However, although he showed high mathematical potential, William had not memorized the times table. He showed no desire to write down his answers to the exercises; he preferred to give them orally. The following day, William was given a post-test that focused on problem-solving, geometry, and linear equations. To accommodate his short attention span and lack of concentration, William was given a shorter post-test consisting of six questions. Like the behavior he had previously displayed, when he started to answer the pre-test questions, William quickly looked at the post-test questions and said, "I cannot do it… I am so tired." However, the questions were read to him orally, and this encouraged him to start solving the problems. He answered all of the problem-solving and geometry questions, but he could not solve the linear equation question. He finished in 44 minutes, which is a long time. This suggests that William can master tasks if he is given adequate time.

The profile of the Dyslexia Screening Test (DST) indicated "very severe difficulty" with One-Minute Writing and "severe difficulty" with Posture Stability, together with "noticeable difficulties" with dexterity (Bead Threading). All these difficulties in writing, dexterity, and balance appear to be consistent with the below-average Coding in the WISC-III^{UK}. This suggests that William's ability to coordinate actions to write at speed is significantly below his

chronological age. In contrast, William showed a “strong ability” in terms of Rapid Naming, One-Minute Reading, Phonetic Segment, Backward Span, Nonsense Passage Reading, and Semantic Fluency, with average performance in Two-Minute Spelling and Verbal Fluency. These strengths suggest that the difficulties are primarily limited to the phonological domain.

The Neale Analysis Test showed that William’s reading age is at least 1.5 years above his chronological age. It was found that William’s reading is fluent, fast, and accurate, and his comprehension of the six given passages was at a high level. Analysis of William’s reading revealed that he has a strong sense of the sound-symbol relationship, which reflects his exceptional oral language ability. Correspondingly, a private psychologist reported that William’s reading age in the Wechsler Objective Reading Dimensions (WORD) is 2 years and 7 months above his chronological age.

A comparison of William’s IQ (Full Scale, Verbal, and Performance) scores, his mathematics Dynamic Assessment, his school academic achievement, and his daily performance on academic tasks certainly indicates that his writing and handwriting difficulties and his high mathematical ability are masking each other.