

## **Programme Development, Research and Background**

Given the complexities of a dyslexic adults learning difficulties, where many areas of weakness will have been compensated to varying degrees, the hypothesis for a screener and test-battery (originally named StudyScan and later to become Quickscreen Dyslexia test) was created, based on assessing a range of discrepancies shown in ability and attainment, fluctuations in performance, as well as individual background and earlier experiences.

The researcher, Dr. Dorota Walker (nee Zdzienski), (then Head Tutor at the Hornsby International Dyslexia Centre and former Area Principal for London and the South East at the Dyslexia Institute), had considerable experience in the dyslexia field and working with educational psychologists in the application of testing materials, she drew on this expertise in selecting those test items considered most effective in identifying dyslexia among adults.

The research originated under the auspices of a two-year Government Funded project (HEFCE) held at Kingston University headed by the Head of the Academic Services Department and carried out by the County Educational psychologist of Surrey together with Dorota who had been granted a Post-Graduate Research Fellowship.

Among the consultants who supported this project and were members of the Kingston University Steering Committee were Dr. Harry Chasty (then Director of Studies at the Dyslexia Institute) and John Walker ( Chief of Surrey Psychologist team). External consultants whose advice was invaluable were Dr David McLoughlin (Head of the Adult Learning Skills and Development Centre, London) and Educational Psychologist Robin Freeland.

The methods used to develop the battery of tests were based largely on the well-established and standardised attainment test (SATA Pro-Ed) for individuals of 16 to 75 years of age. The Reliability and Validity measures are readily available in the relevant literature. All the new test items were subject to a systematic and controlled selection and analysis to give the test battery an acceptable level of content validity. Each individual test was piloted at several stages of its development from paper to computer-based presentation. The research was implemented in co-operation with the University of Surrey, and due to the support and encouragement of those mentioned above and the

many Heads of Department at both universities the pilot studies were successfully completed.

## **Standardisation of the Test Procedure**

The Surrey University pilot study was carried out with 1,223 adults, mainly involving the first year intake, representing a range of demographic origins and subject areas.

A simultaneous study was carried out at Kingston University with 133 bi-lingual/multi-lingual adults from a variety of ethnic backgrounds, and 97 previously diagnosed dyslexic adults from a range of subject disciplines.

A further Kingston University pilot study was carried out with 992 adults from the University from a variety of subject backgrounds.

As a result of these initial pilot studies, and expert guidance from the statistician at the School of Mathematics, Kingston University, the battery of tests was re-normed and deemed suitable for a UK adult population.

The findings of the research with dyslexic adults led to the presentation of a profile analysis which is recorded in the PhD thesis *Dyslexia in Higher Education: Learning Support, Screening, and Diagnostic Assessment* which was successfully completed under the auspices of the School of Education, Leicester University under the guidance of Morag Hunter-Carsch.

## **Development of the StudyScan Suite**

Once the test battery had been successfully produced as a computer-based programme named the StudyScan Suite, a further statistical analysis was carried out with 60 adults of whom 30 were randomly selected from various subject areas and 30 had been previously diagnosed as dyslexic by educational psychologists. The results of the study indicated that the test could successfully discriminate dyslexic from non-dyslexic adults. This research was carried out with the support and co-operation of the Department of Psychology, University of Ulster. The test procedure was intended not only to identify dyslexia but also provide a comprehensive, targeted cognitive profile of learning strengths and weaknesses. It could furthermore be used to plan appropriate support in learning competencies required.

It also included the questionnaire QuickScan which is now used extensively with a reported 95% accuracy and which is fully documented in the PhD thesis, in the book *Dyslexia and Effective Learning in Secondary and Tertiary Education* (Whurr publ. 2001) and in a number of independent studies that have been carried out in recent years.

## **Summary**

Over 2000 adults across many subject areas, drawn from the Universities of Surrey, Kingston and Ulster, of whom 200 were known dyslexics were involved in the research studies and experimental work on design and trialling of screening and diagnostic tests.

Mean performance levels were established from data collected on individual performance in cognitive and attainment tasks and analysed quantitatively. Qualitative analysis was also employed to identify study skills difficulties and areas where dyslexic adults showed differences in their responses to tasks compared to their non-dyslexic peers.

The test embodied the resultant approach to diagnosis based on profiling areas of relative strength and weakness in study, general literacy skills and assessment of dyslexia. QuickScan reported on learning preferences, indicators of dyslexia and more general language difficulties.

It was the first ever reliable computer-based dyslexia assessment test to be produced and has been continuously administered by the colleges and institutions that endorse its effectiveness and detailed analysis through their own evaluation procedures, after its initial use in selected Educational Institutions.

It has since been upgraded and successfully extended to the Army, Occupational and Social Services, including a number of international venues.