



research in assessment and measurement at NFER

NFER's Department for Research in Assessment and Measurement specialises in test development and research into assessment-related questions. We work on projects of importance to national and international educational policy and its implementation through research, the development of assessment instruments and the evaluation of assessment initiatives. We have a consistent track record of developing high quality assessment materials to meet the needs of a variety of audiences.

NFER has been involved in test and assessment developments for over 60 years. Over that time we have developed unparalleled expertise in test development and evaluation processes, and a thorough understanding of the needs of learners, teachers and policy makers. We have been involved in the development of statutory national tests, optional tests and banks of optional assessment materials, and assessment for learning materials. We have also undertaken research into the use of technology in many parts of the assessment process.





Assessment research

Test development

We ensure that our test development processes are always fit for purpose. We use the subject and test-development expertise of our 40-strong team to define a clear 'construct' and agree the purposes for which the results will be used, then write the questions. Where appropriate we carry out informal trials and pre-tests of the materials and thorough statistical analyses to refine the questions. We have developed highly confidential tests for selection and accountability purposes and we have procedures and premises to ensure the security of the materials at all times. A number of our tests have also been published.

Piloting

NFER leads the piloting of many new assessment instruments, agreeing the desired purposes, and then developing instruments to meet these, analysing results and collecting user feedback over the course of the pilot. Piloting provides reliable evidence to inform refinements to the

instruments or processes, or to support the live release of the assessments.

Independent evaluations

NFER undertakes independent evaluations of new assessment systems to ensure they meet the purposes for which they were designed. Evaluation methodologies include the collection and analysis of test results and user attitudes, as well as comparisons with external measures such as existing tests and more qualitative collection of user views through focus groups.

Research

We also carry out research into effective test development, administration, analysis and reporting methodologies. For example, we have investigated issues such as the reliability of e-marking compared with paper-based marking, assessment for learning in science, and pupil attitudes to reading as part of commissioned research to meet the needs of particular customers. We also fund our own research to inform the wider educational community.

A selection of current projects

National Curriculum tests

We currently develop National Curriculum tests for English and science for pupils aged 11 (key stage 2) and have developed tests in mathematics and science for pupils aged 14 (key stage 3) until recently. Each of the assessments must be inclusive and accessible for the majority of pupils in the relevant year group, with a wide variety of contexts to ensure motivation and interest and also to promote best practice as the materials can be used as a resource by teachers.

International surveys

NFER has had a long involvement with international assessment, and was a founder member of the International Association for the Evaluation of Educational Achievement (IEA), which organises international comparative studies of educational achievement. We have been responsible for managing the testing in England for all of the IEA surveys in which the country has participated, including the Trends in International Mathematics and Science Study (TIMSS), the Progress in International Reading Literacy Study (PIRLS) and the International Civic and Citizenship Study (ICCS). We also manage the testing of the Programme for International Student Assessment (PISA) for the OECD for all countries in the UK.

NFER has also contributed to the development of the instruments used. In recent years, we have provided experts to the international test development process for both PIRLS and TIMSS.

Aptitude Tests in University Entrance

We are involved in a five-year longitudinal study to examine the use of an aptitude test in higher education admissions, co-funded by the Department for Innovation, Universities and Skills (DIUS), the College Board, the Sutton Trust and NFER. The study involves a sample of approximately 8000 students in English schools and FE colleges, who took the SAT Reasoning Test in autumn 2005 during the final year of their two-year A level courses. This research will enable some important conclusions to be made about the usefulness of the SAT® and the appropriateness and consequences of its use for HE admissions, taking into account the wider educational context.

E-assessment

NFER has developed a series of sophisticated e-assessments in reading, maths and science for primary pupils, distributed through our partner company, *i-nfer*. The e-assessments uniquely combine the power and innovation of ICT and NFER assessment expertise to produce on-screen 'challenges' that children enjoy. Online analysis and reporting provides evidence of pupil progress and practical support in personalising learning, without adding to teachers' workload. A unique feature is the 'profile', which interprets the data and provides a description of pupil's strengths and weaknesses, and specific teaching suggestions for groups of learners. Visit www.i-nfer.co.uk for more information.

Researching effective teaching of inference and deduction skills for reading

A literature review to uncover what is known about the reading skills of inference and deduction was conducted in late 2007 for the Department for Children, Schools and Families. The specific purpose was to distil implications for teaching from academic research.

Skills assessments for Wales

In Wales, there is a new emphasis on assessing skills across the curriculum. Our bilingual team is developing assessments of communication skills in Welsh for year 5 pupils. These are very informal, open-ended classroom activities incorporating assessment for learning. Teachers are given guidance on developing and sharing with children the criteria for assessment against a new Skills Profile.



International Information Unit

We draw on a wealth of international evidence about education systems to support us in our work. Our International Information Unit hosts the Eurydice Unit for England, Wales and Northern Ireland, the information network on education in Europe. The network exists to facilitate cooperation, collaboration and information sharing in education policy making. The Unit also hosts the International Review of Curriculum and Assessment Frameworks Internet Archive (INCA) website, which provides descriptions of government policy on education in 20 countries. Funded by QCA and the TDA, it focuses on the curriculum, assessment and initial teacher training frameworks for the education of three- to 19-year olds in schools. For more information visit: www.nfer.ac.uk/eurydice and www.inca.org.uk.

Contact us

For more information contact Sarah Maughan at s.maughan@nfer.ac.uk or visit our webpage at: www.nfer.ac.uk/dram.

About NFER

NFER is a not-for-profit organisation, and aims to make a difference to learners of all ages, especially to the lives of children and young people, by ensuring that our work improves the practice and increases the understanding of those who work with and for learners.

We are the UK's largest independent provider of research, assessment and information services for education, training and children's services. Our work enables policy makers and practitioners to make better, more informed decisions, drawing on sound evidence and accurate information.

Our clients include UK government departments and agencies at both national and local levels, who benefit from our full range of expert and professional services including access to international networks and data sources. We also invest NFER's own resources to fund research and development activities that we believe will have a positive impact on society and improve the services we offer our clients.

