

CONNECT

ISSUE 04 • AUTUMN 2015



BASE

**INNOVATIVE,
INTERACTIVE
REPORTING
at your fingertips**

ALSO FEATURING
HOW DO WE KNOW WHAT WORKS?
BASE REPORTING & FEEDBACK
GCSE REFORMS IN 2015/16
SELECTION ASSESSMENTS

INTRODUCTION

■ WELCOME TO THE AUTUMN 2015 ISSUE OF CEM CONNECT!

For many schools there has been much change this term. For government-funded primary schools in England, the pilot year of the reception baseline policy is now underway, with children taking an on-entry baseline assessment from which to measure progress. CEM's BASE assessment is one of the accredited systems, and we are really excited about the new interactive reporting on offer (p.4).

Similarly for GCSEs, the pilot year of the new Progress 8 measure begins this term, with new attainment measures being introduced for maths, English and English literature. CEM will be responding to the upcoming changes at GCSE by updating our MidYIS, Yellis, INSIGHT and Alis systems accordingly, as well as addressing the changing predictions, producing updated chances graphs and value added feedback to incorporate the changes (p. 8).

Also in this issue, some exciting research to improve literacy with the Literacy Octopus project (p.3) and details of our CEM Select entrance assessments for Independent and Grammar schools (p.6).

We hope you enjoy reading the latest issue of CEM Connect – we're always keen to hear your thoughts, so do let us know what you think by emailing: cem.newsletter@cem.dur.ac.uk

Katharine Bailey, Director of Applied Research

HOW DO WE KNOW WHAT WORKS?

ON THE FIRST SATURDAY OF THE NEW TERM, CEM DIRECTOR, PROFESSOR ROB COE, JOINED ABOUT 700 TEACHERS AND SOME OF THE MOST RENOWNED SPEAKERS ON EDUCATION AT researchED's THIRD ANNUAL CONFERENCE.

Professor Coe's session was entitled '**How do we know what works?**' and addressed the question of whether teaching ever can (or should) be a 'research-based' profession, what randomised controlled trials can (and cannot) tell us and how to ensure 'what works' does actually work, including advice on how to monitor and evaluate your own effectiveness using high-quality assessments.

Details of the event, including videos of the presentations, can be found at: www.workingoutwhatworks.com

Download Professor Coe's presentation here: <https://bit.ly/RobCoePresentations>



WHAT MAKES GREAT TEACHING?

IN 2014 PROFESSOR COE CO-AUTHORED A REPORT FOR THE SUTTON TRUST.

This report reviewed over 200 pieces of research to identify the elements of teaching with the strongest evidence of improving attainment. It finds some common practices can be harmful to learning and have no grounding in research. Specific practices which are supported by good evidence of their effectiveness are also examined and six key factors that contribute to great teaching are identified. The report also analyses different methods of evaluating teaching including: using 'value-added' results from student test scores; observing classroom teaching; and getting students to rate the quality of their teaching.

Download a copy of the report from: www.suttontrust.com/researcharchive/great-teaching/



COMMUNICATING & ENGAGING SCHOOLS IN RESEARCH

THE LITERACY OCTOPUS TRIAL

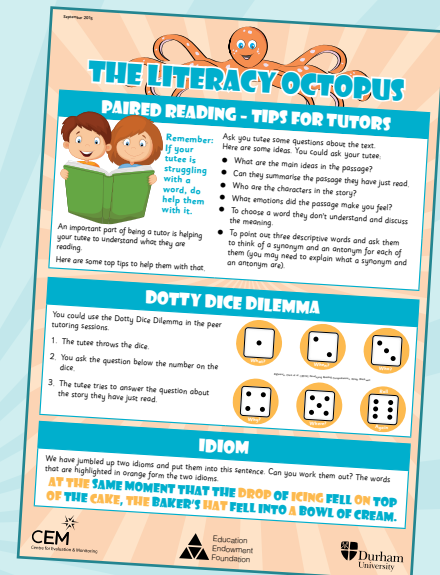
COMMUNICATING RESEARCH FINDINGS TO INFLUENCE POSITIVE CHANGES TO EVERYDAY PRACTICE IS A RECOGNISED CHALLENGE ACROSS MANY DISCIPLINES, TO WHICH THE EDUCATION SECTOR IS NO EXCEPTION.

Previous research studies have reported the provision of research-based advice and Continuing Professional Development (CPD) sessions to be effective in changing teachers' beliefs and classroom behaviour, but the cost of doing either or both could be vast, and should be proportional to the pupil attainment gains.

The Literacy Octopus trial is a large multi-arm randomised controlled trial funded by the Education Endowment Foundation (EEF) to investigate the best ways to communicate and engage schools with research findings, with an aim of improving literacy attainment among Key Stage 2 pupils. CEM is one of four organisations who are contributing to the trial, and is currently delivering interventions of varying intensity, to 180 schools in

England. The intervention groups are split into three levels, to assess the uptake and cost-effectiveness of each.

As part of our intervention, we reviewed and translated relevant research papers to develop a booklet to communicate evidence-based practical classroom strategies for reading comprehension and spelling, appropriate for use with children in Key Stage 2. The booklet (available in hardcopy and pdf), along with monthly classroom posters - which aim to encourage literacy discussion in order to improve oral comprehension skills - form our evidence-based materials. Schools randomly allocated to Level one intervention group, receive the evidence-based materials only. Schools at Level two build upon Level one, as they receive the evidence-based materials and one CPD session to discuss good practice surrounding literacy. At Level three, schools receive all of the aforementioned, plus guidance to conduct peer observations of one another's literacy sessions, and the opportunity to assess their pupils' reading and spelling using a diagnostic assessment (CEM's InCAS). At this level,



schools are also invited to attend a further CPD session to discuss the strategies in the advice booklet in relation to the InCAS profiles of individual pupils and at class level. The experimental design of this research will enable the evaluation of increasingly expensive and intensive interventions along with their cost-effectiveness with the aim of showing how best to communicate research and embed it into practice.

Schools began receiving the interventions in January 2015, and will continue to do so until July 2016. The impact of the intervention on pupil attainment will be independently evaluated by the National Foundation for Educational Research (NFER) who will assess KS2 SAT outcomes in 2015, 2016 and 2017.

More information on the trial can be found online here: educationendowmentfoundation.org.uk/projects/communicating-research-findings-trialling-different-approaches/

or please email research@cem.dur.ac.uk

BASE REPORTING & FEEDBACK

MUCH MORE THAN JUST A RECEPTION BASELINE ASSESSMENT

OUR RECEPTION BASELINE ASSESSMENT CAN HELP SCHOOLS SUPPORT GOOD TEACHER ASSESSMENT BY PROVIDING A QUICK, OBJECTIVE AND RELIABLE ASSESSMENT THAT HELPS TO GAUGE THE AMOUNT OF PROGRESS BEING MADE AND HOW THAT RELATES TO A NATIONAL BENCHMARK.

This 2015/16 pilot year is the first year schools will have the opportunity to use CEM's new and [innovative downloadable pdf and interactive reports](#).

What can you expect from your reports?

For over twenty years we have produced detailed reporting from

our reception baseline assessment that has been valued by thousands of teachers and headteachers around the UK and overseas. Many teachers using BASE will already be familiar with the reports we have previously provided and will have become experts in using this information to help drive pupil progress.

The reporting that we now provide for BASE draws on all of our years of experience and our research-based evidence to present information which reflects the changing school and assessment environment.

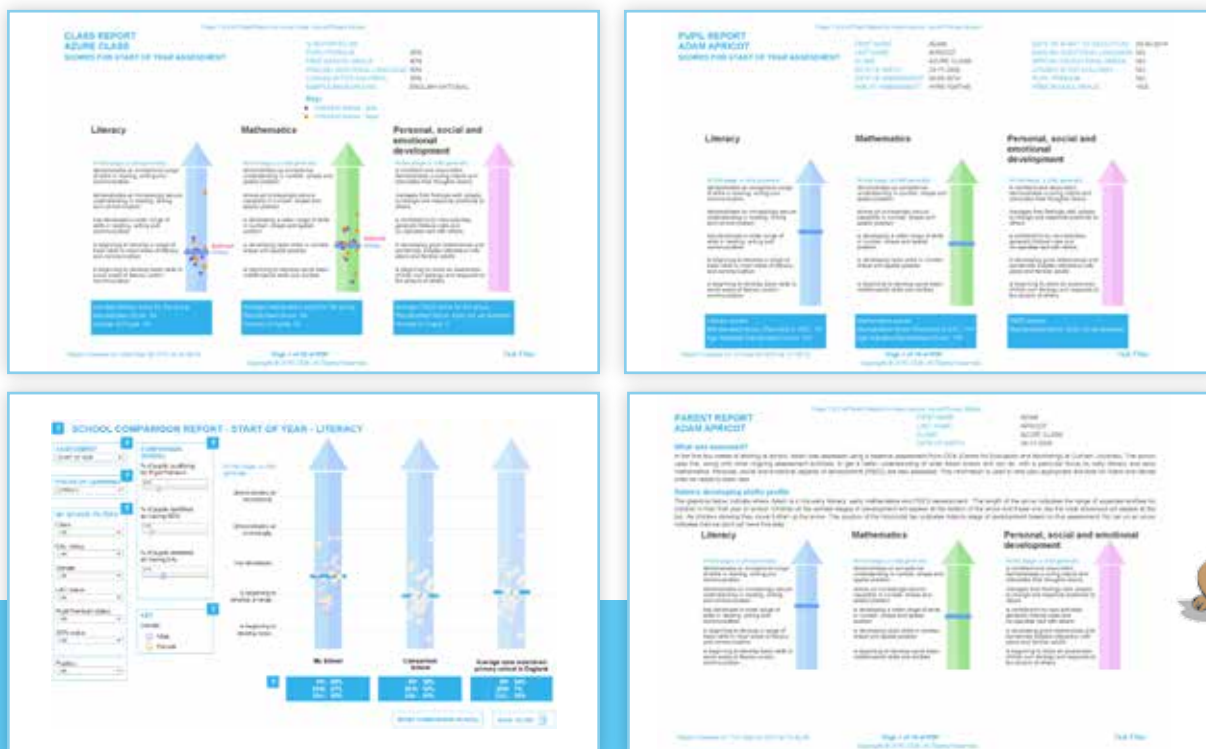
Pupil-level reporting

On completion of the BASE assessment, teachers will be able to draw on a wealth of information at an individual pupil level, offering real insight into what each individual child knows and can do at this crucial early stage.

BASE pupil-level reports present information about each child's development in literacy and mathematics and how that compares against pupils in the same class, against pupils in the same school and even against national averages. This information is presented graphically as a series of stacked bar graphs but also as age-adjusted scores for individual pupils.

Understanding the whole class

At class level, reports will also help practitioners to identify and understand the differences in development across whole groups. Crucially, class-level reports will show pupils' development in each module and in each subsection of the assessment. For example, practitioners can see an overall score for literacy as well as a breakdown of scores for concepts about print, letter



Visit www.cem.org/BASE to see more detailed samples.



recognition, reading, vocabulary and phonological awareness.

These highly detailed and sophisticated reports provide an invaluable profile of the development of the class at a glance and offer useful information for planning activities.

Seeing the bigger picture

Senior leaders will benefit from innovative and powerful school comparison information. This allows teachers to compare the development of their pupils against national benchmarks. Exciting developments in reporting functionality from CEM now allow school leaders and data managers to make more refined evaluations by comparing their school to a comparison school (modelled from a data set) with similar attributes, for example those who have comparable cohorts of children with EAL, SEN or who are eligible to receive pupil premium funding. This

ensures that the comparisons are meaningful and valuable.

Next steps

To complement this advanced and innovative reporting, we are very pleased to be able to offer an extra level of advice in the form of research-based guidance on the next steps that can help all pupils make progress. The 'BASE: Next Steps Guidance' booklet focuses on practical, evidence-based techniques and resources to develop children's early language, literacy and mathematics. Drawing on what research tells us can improve children's early literacy and mathematics, and providing a variety of links to research and resources, the Next Steps Guidance supports practitioners in making use of the best research available.

We have a dedicated team committed to the ongoing design and development of these reports

which will continue through the coming months.

We will be enhancing and enriching the BASE reporting throughout 2015/16 – adding new functionality and developing new reports – in order to help schools get the most benefit from the BASE assessment.

BASE is the first step in a new all-through assessment system. Using other CEM assessments, you will be able to track pupil progress right through Primary school, from BASE in Reception to the end of Key Stage 2.



CEM SELECT

MAKING THE BEST SELECTION

WIDELY USED IN UK INDEPENDENT AND GRAMMAR SCHOOLS, AND INCREASINGLY USED IN INTERNATIONAL SCHOOLS TOO, CEM'S ENTRANCE ASSESSMENTS PROVIDE TEACHERS WITH A RIGOROUS AND ACCURATE MEANS OF IDENTIFYING THE MOST ABLE PUPILS FOR SELECTION PURPOSES.

Providing comprehensive feedback, our entrance assessments also enable you to highlight specific patterns of strengths, weaknesses and potential in pupil performance.

Developed in partnership with schools and education authorities, our entrance assessments are tried and tested to ensure they are reliable and valid. Proven to perform well year-after-year, they are all suitable for entry into Years 7, 8 and 9 and are offered in a range of formats to suit each school's needs:

- **CEM Select Challenge** is computer-based and provides raw scores, sub-section scores and total scores. The assessment content is refreshed and updated each year.
- **CEM Select Evaluate** provides schools with the same feedback that CEM Select Challenge offers as well as providing year-on-year comparability and national norms for comparison. The content remains the same each year.
- **Mid-Year Transfer** provides Grammar schools with year-on-year comparability and optional standardised age norms specific to each school based on a suitable benchmarking group.

At CEM, we are passionate about ensuring that all candidates have an equal opportunity of success and our aim is to develop assessments that are taken in as standardised an environment as possible, so that each candidate has the same assessment experience.

Therefore we strive to make the selection process fair for all candidates and our assessments are designed to enable all children to demonstrate their potential without the need for excessive preparation.

To achieve this, 11+ entrance assessments from CEM are developed under the following principles:

For further information about our selection assessment services:

www.cem.org/entrance-assessments • entrance-assessments@cem.dur.ac.uk • +44 (0) 191 334 4262



1. Skill-Based Content

CEM Select entrance assessments focus on assessing the reasoning abilities of candidates. Knowledge-based assessments are susceptible to tuition and prepping, potentially advantaging candidates with the resources to supplement their education. Research indicates however that underlying reasoning abilities can be tested without the need for introducing excessive knowledge-based material.

Based on this, **CEM Select** assessments focus on verbal, mathematical and non-verbal ability only, and do not draw upon national curriculum content beyond that which we would expect a child of that age to be able to access.

2. Removing Bias

CEM is a world leader in educational research and we understand that not all children learn in the same way. Many groups perform differently in specific skill sets. Our research shows, for example, that male candidates tend to show an advantage in mathematical reasoning while female candidates tend to perform better on verbal questions. Candidates with English as an Additional Language may be disadvantaged through less exposure to reading in English. Children with dyslexia may have a specific deficit in reading ability but have intact understanding.

Our selection assessments are developed with the aim of minimising the impact of these factors, using a range of strategies to achieve this. Each **CEM Select** format also comes with a 25% extra time version and is available for pupils with special educational needs.

3. Resistance to Tuition

We are aware that the practice of intensive tuition surrounding selection assessments is a major issue in the education sector. Concerns are frequently raised that many able candidates may be at a disadvantage, compared with candidates with the resources to prepare for selection assessments. In order to mitigate any disadvantage, our assessments implement rigorous controls, such as continually refreshing the content, where appropriate, introducing new assessment paradigms to reduce the predictability of assessment content and standardising assessment delivery across centres, ensuring that all candidates get the same assessment experience. In addition to this we do not provide any commercially available materials (including practice or past papers), nor do we endorse, support, or work with any third party provider of materials or tuition services.

GCSE REFORMS IN 2015/16



FROM SEPTEMBER 2015 SCHOOLS BEGAN TEACHING TO THE NEW REVISION OF GCSE COURSES IN MATHEMATICS, ENGLISH LANGUAGE AND ENGLISH LITERATURE.

First announced in 2012, the DfE and Ofqual have spent the last three years consulting on the reform of all GCSE subjects and the first tranche of these will be assessed in 2017. Following these initial subjects, other GCSEs will also be revised over the following two years.

2015/16

English language • English literature • mathematics

2016/17

ancient languages (classical Greek, Latin) • art and design • biology
chemistry • citizenship studies • computer science • dance
double science • drama • food preparation and nutrition • geography
history • modern foreign languages (French, German, Spanish) • music
physics • physical education • religious studies

2017/18

ancient history • astronomy • business • classical civilisation
design and technology • economics • electronics • engineering
film studies • geology • information and communications technology
media studies • psychology • sociology • statistics

Further Information

Further information on the reforms can be found on the DfE website at:

www.gov.uk/government/collections/reform-of-gcse-qualifications-by-ofqual

Key facts

- New grading system with numbers from 1 to 9 (9 as top grade).
- Assessment with more emphasis on examination.
- More demanding content taught in a linear fashion rather than modular.
- Separate tiers only in certain subjects (Mathematics in 2017).



These subjects will have new, more demanding content for students and will place increased emphasis on assessment by examination. The grading scale for these revised subjects has also been changed and students will now receive a number from 1 to 9, with 9 being the highest mark available. A 'U' classification will still be awarded in the case of a student failing to meet the minimum standard for the subject.

The change to the GCSE scale is intended to provide more differentiation for students who achieve a passing grade in the qualification. It is intended that broadly the same proportion of students who would have previously achieved at least a C grade will obtain a grade 4 or above and the same proportion for an A or better would now achieve a grade 7 or higher.

In line with these changes to the GCSE scale, the main accountability measure for schools will be changing to the new Progress 8 measure. This will be calculated using the Attainment 8 measure which comprises double

weighted mathematics and English, three subjects from an approved list and any three others. Attainment 8 scores will be compared to those predicted for students based on KS2 results to give Progress 8.

Another change to the structure of the GCSE subjects introduced this September will be the removal of a modular approach. Subjects will be taught in a linear fashion with assessment taking place at the end of the course in 2017. Resits will only be available for English language and mathematics in November.

Mathematics

Of these newly revised subjects, only mathematics will be split into two tiers in order to allow all students a chance to showcase their abilities to the full extent. The new mathematics exam is intended to be more challenging, with a greater emphasis placed on problem solving. Some new topics will be included in the new specification and some more advanced elements such as quadratic equations will be covered by the lowest tier.

English

The English language GCSE will now place a higher emphasis on spelling, punctuation and grammar with 20% available for these elements. Students will be expected to read a broad range of material but there will not be set texts for the subject.

English literature will no longer be a compulsory subject and is intended to give students the opportunity to read, think and write critically. They will be expected to study Shakespeare, 19th-century novels and Romantic poetry among other texts. The examination for the subject will include an unseen text.

CEM will provide predictions to the new GCSE scale and are also redesigning our current value-added measures and % 5A* - C feedback and reports to reflect the Attainment 8 measure. These predictions are expected to be available for the first time early in 2016.

CEM ASSESSMENTS IN AN INTERNATIONAL CONTEXT



THE NUMBER OF INTERNATIONAL SCHOOLS USING CEM ASSESSMENTS IS GROWING RAPIDLY YEAR-ON-YEAR.

International schools in over 70 countries are now benefiting from a wealth of information on the ability, potential and progress of primary, secondary and post-16 students that informs teaching and learning and helps to evaluate school effectiveness.

As the number of international schools grows we know that the most important questions schools have are:

- How relevant are the CEM assessments in an international context?
- How can CEM assessments be used with students for whom English is an Additional Language (EAL)?
- How can the assessments be used to support international benchmarking?

A 'typical' English-medium international school will comprise a significant proportion of students who are learning English as an additional language. The majority of the students at international schools cover a wide spectrum of language abilities and exhibit tremendously complex language profiles. It is a hard task to define a 'typical' international school, perhaps even harder to define a 'typical' international student.

Facing challenges in language

Students face daily challenges, and will make daily progress, when almost all of their classes are in English and they will take the same internal and external exams in English as their native-speaking peers. Students must learn new content and skills in a language over which they are still gaining mastery and all teachers must be language teachers.

It is important therefore to accurately assess not only each student's language development, but also their underlying skills and aptitude free from the restrictions of language.

Getting insight into underlying ability

CEM assessments are intended for use in English-medium settings and with learners who will be taking examinations in English. The assessments measure the ability of each learner in areas such as vocabulary, mathematics, non-verbal ability and skills such as perceptual speed and accuracy.

The assessments are delivered in English and use English language and vocabulary throughout, and the non-verbal ability scores can give a vital insight into the developing ability of learners for whom English is an additional language and who may benefit from tailored support.

Importantly, learners who receive EAL support can also be re-assessed in subsequent years to recalibrate predictive information as they develop their English language proficiency.

Comparing international student performance

CEM assessment feedback is based on data gathered from thousands of pupils that have all taken the same assessment. The benefit of drawing data from such a large sample means that we can confidently establish what level of performance is typical for a student of a given age and therefore provide meaningful

Section	Year 12/13 (11th and 12th Grade)	
	International mean	Independent mean
Maths	106.4	104.6
Vocabulary	100.8	102.2
Patterns	102.5	103.4
Overall	105.3	104.4

comparisons. For example, international students taking the ALIS/CEM IBE assessment in 2014 earned higher scores in the maths section of the assessment than UK independent school pupils (international students scoring a mean of 106.4 while UK independent students scored 104.6). The overall scores, taking into account maths and vocabulary sections, were also slightly higher in international schools (mean score of 105.3) compared to UK independent schools (mean score of 104.4) while the UK state-maintained mean is 100.

Full details of international mean score comparisons for all systems will soon be available on the CEM secure sites.

If you would like us to send you a copy immediately please contact: international@cem.dur.ac.uk

DATES FOR YOUR DIARY

EVENTS

CONFERENCES

EXHIBITIONS

Discover how CEM can help you improve standards at your school. Learn how to get the most from CEM systems and learn from colleagues. Come along to one of our regular events or come and meet us at an exhibition or conference. If you are in the UK you are welcome to come and visit CEM at Durham University.

For a full list visit www.cem.org/events

NOV 2015 **5th London:**
Curriculum 2015 Conference and Exhibition (Capita Events)

5th – 6th Dunblane:
Secondary Performance and Assessment Reform (AHDS)

13th – 14th Daventry:
ISA Autumn Study Conference

19th – 21st Cheltenham:
HMC Conference for Academic Deputy Heads

DEC 2015 **3rd – 4th Manchester:**
SSAT National Conference: Quality & Equity

10th – 12th Hong Kong:
Learning & Teaching Expo

JAN 2016 **20th – 23rd London:**
BETT 2016

FEB 2016 **16th Aberdeen:**
Aberdeen Learning Festival

MAR 2016 **1st - 3rd Dubai:**
GESS Global Education Forum

17th – 19th Birmingham:
The Education Show 2016

SCHOOLS TAKE PART IN PILOT FOR BASE P1 IN SCOTLAND IN 2015/2016

We are currently piloting the new BASE P1 assessment with schools in Scotland.

Schools from four Education Authorities have agreed to trial this assessment with some of their current P1 pupils to allow us to perform comparability studies between the new BASE P1 assessment and the existing PIPS P1, which is currently used by schools in 18 Authorities.

The assessment measures development in Literacy, Maths and Personal, Social and Emotional Development at the start and end of year and will give schools and Authorities a wide range of sophisticated feedback reports, including Pupil, School and Class Profiles, Scotland and UK comparisons and interactive reporting.

Following a successful outcome of the pilot year CEM will release BASE P1 across Scotland from 2016 onwards.

LOOK OUT FOR CEM'S NEW BROCHURES

CEM Scotland



WORLD CLASS ASSESSMENT
EVERY STEP OF THE WAY

You'll soon be able to pick up a copy at our events or download on www.cem.org

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