

# CONNECT

ISSUE 16 • SPRING 2019

## The **LEVEL ILLUSION**

James Pembroke examines the illusion of accuracy in school tracking systems.



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#### **GET INVOLVED**

You don't have to use CEM assessments to get involved

#### **THE BIG EVIDENCE DEBATE**

Tuesday 4th June 2019

# INTRODUCTION

## ■ Welcome to the Spring 2019 issue of CEM Connect!

The new Ofsted framework may well 'ignore all tracking data' from September 2019. So what does this mean for measuring pupil progress and those ubiquitous data-tracking sheets now?

In this issue, we look closely at assessment data and its place in schools. We ask what good data actually is. What does it look like? How do we get it? And importantly, what do we want the data to do?

The Level Illusion by Data Analyst and Advisor James Pembroke, examines our so-called 'life without levels' and asks if it's time we considered whether we can really measure progress.

We know that data can be helpful and can support teachers without them having to spend hours poring over spreadsheets, or being inundated with unnecessary information. Read our case study, about Good Practice for all EAL pupils, to see how InCAS assessment data has helped to identify the specific learning needs of an EAL primary pupil, and how the data can be used to clarify and support the next steps in his learning pathway.

Good assessment and data should be something that supports the work you do in the classroom and we're eager to hear about how this works for you. Find out about CEM's updated reports and Get Involved to tell us what good data looks like to you.

Matt McGinlay discusses Making the Most of your Data with Evidence Based Education's training packages, which help teachers understand how CEM assessment data can provide insight into pupils' strengths and weaknesses and help them identify what will improve their students' learning.

In amongst all these questions, we have some exciting news about The Big Evidence Debate, taking place in Durham on Tuesday 4th June, where Dylan William, Larry Hedges and many more will talk about the role of randomised control trials and meta-analysis in education.

We hope you enjoy reading this Spring 2019 issue of CEM Connect. If there is anything you would like to see in our next issue, or if you have any questions, get in touch at: [info@cem.dur.ac.uk](mailto:info@cem.dur.ac.uk)



**THE  
BIG  
EVIDENCE DEBATE**

**TUESDAY 4<sup>TH</sup> JUNE 2019, DURHAM**

**Register for the ticket ballot**  
[thebigevidencedebate.com](http://thebigevidencedebate.com)

# MAKING THE MOST OF YOUR CEM DATA



By Matt McGinlay, CEM Training Manager,  
Evidence Based Education

In 2016, the Department for Education produced a series of Standards for Professional Development encompassing recommendations for teachers' continuing professional development.

Effective CPD programmes should offer expert support to learners, as well as providing them with guidance which is relevant to their context.

Research evidence also suggests that the most effective professional development programmes provide opportunities to draw out and constructively challenge participants' existing beliefs.

### Context-based support

Understandably, many schools want training that is bespoke to their context. Every school is different: the location, the intake and the ethos to name but a few.

At Evidence Based Education (EBE) we support schools using CEM data to give all teachers the knowledge to be able to interpret and use CEM assessment data and to improve the outcomes of the pupils they teach.

Different stakeholders, such as teachers, senior leaders, heads of department, governors and parents will all use CEM data differently: hence a one-size-fits-all session would not be appropriate. We send out a planning survey before any

visit or training takes place, in order to create a session that meets the needs of those attending.

### Analysing your school data

The most meaningful training sessions for teachers are delivered in the context of pupils that they know and teach, so using your school's data on the day can really emphasise the link between the data and the professional judgement of teachers. This data also provides opportunities to discuss and advise on potential strategies that may help pupils with particular profiles.

Different stakeholders use different parts of the data and the sessions can reflect that, for example using intake data with heads of departments or value-added with senior leaders.

### Training solutions that are right for you

EBE provides flexible, affordable, blended training packages. This includes online learning access for all of your staff, as well as remote support, Q&A webinars, and an in-house training day.

When you sign up for one of the CEM data training packages, you gain access to the CEM training dashboard.

The online course:

- Is a sustained programme over a year that all staff can access
- Contains content that will directly help schools use CEM assessment data more effectively to improve student outcomes
- Is structured to include retrieval practice in order to stimulate thinking and exercises for staff to practise what they've learnt
- Requires senior leaders' commitment to making CEM training a priority
- Provides support throughout from EBE's team of experts.

Training sessions can be booked at any point during the year, although many schools find the training works best when it is used to kick off the year.

Training dates are up to you: simply decide when the training will give you the most benefit and we will do our best to be there for you.

Find out more: [evidencebased.education/training-cem-durham](http://evidencebased.education/training-cem-durham)  
Or get in touch: [cem-training@evidencebased.education](mailto:cem-training@evidencebased.education)

# GET INVOLVED

## CEM has been developing the best assessments for students for over 30 years.

While we are experts in research and educational theory, our most valuable information about the impact assessment data can have comes directly from current classroom practitioners. Teachers know exactly what is needed to help their pupils' learning and equally, what barriers they face.

We know that you face a wide variety of issues and challenges within the classroom. Thanks to you sharing your experiences with us, our assessments have been specifically developed to fit your classroom and support the changing needs of you and your students.

## Making good progress

A CEM assessment, like any assessment, should not be taken as the full picture of a student's ability. Our priority has always been to make sure that our products support and inform teacher judgement.

We want our assessments to be a useful tool for you. Already, you have helped us to make meaningful data more accessible than ever, looking at ways to get the data you need to you at the time when it can have the greatest impact. We have adapted our assessments, and the data they provide to accommodate evolving technology, and to reflect changes in GCSE and A Level grading.

We want to keep improving the assessments and services we provide, and know that there is even more we can do with your help.

## New! Report Centre

Working with teachers like you, we have created a new Report Centre - an online hub where you can access your MidYIS and Yellis reports.

Log in to your Secondary+ secure site as normal and access your MidYIS and Yellis reports in the Report Centre via the feedback menu.

- All the same information you are already familiar with is provided in a new, easily accessible, user-friendly format.
- The original Excel spreadsheets are still available to download and are compatible with the latest technology.
- We have introduced additional filtering capabilities, which allow you to view your most meaningful data at a glance.

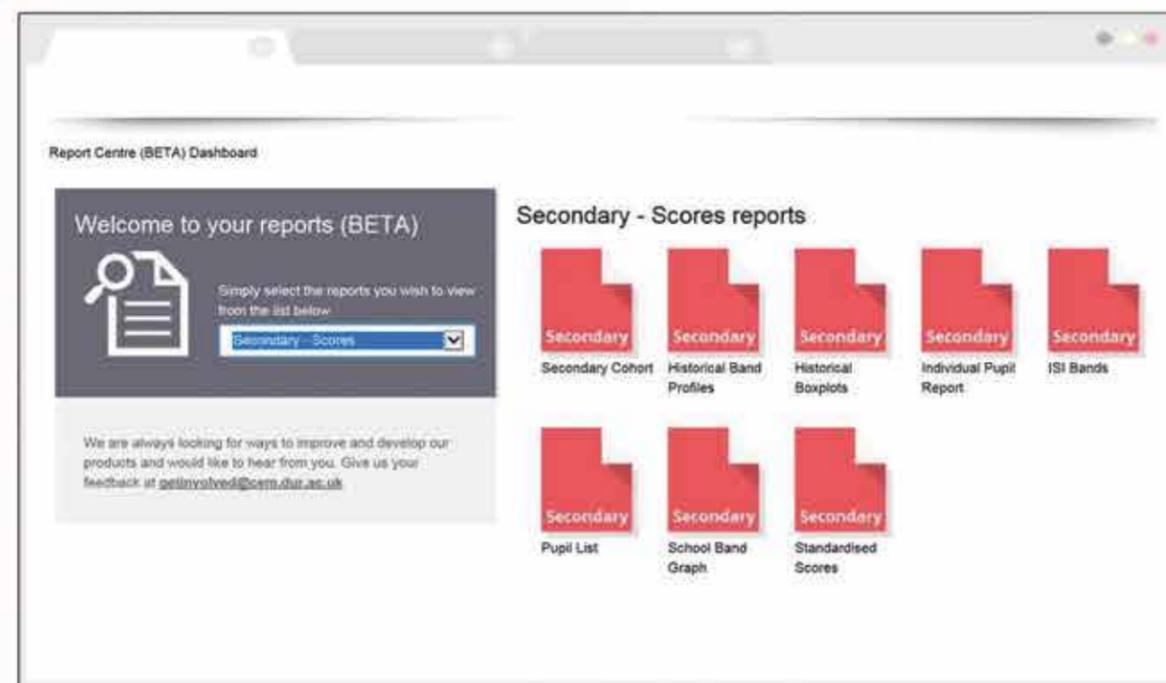
## We'd love to know what you think of the changes

You can tell us what you think of the new reports by clicking on Review our Reports within the Report Centre.

## Coming soon

As the Report Centre grows, we are looking to:

- Provide value added reports for MidYIS and Yellis, meaning all the information you need will be in one place
- Develop international comparison reports for Pre and Post-16 assessments, enabling you to make comparisons between your school and schools with similar profiles.



## You don't have to use CEM assessments to get involved

We are continuously updating and adapting our reports to ensure our assessments reflect what is needed in your classroom. Our dedicated Get Involved group is here to listen to you.

By being a part of our Get Involved group you become part of a wider educational community; you will receive:

- regular updates from CEM
- first look at new reports in development
- invitations to join discussions about the challenges and opportunities you face in the classroom.

To get involved please email us at:  
[getinvolved@cem.dur.ac.uk](mailto:getinvolved@cem.dur.ac.uk)

# The LEVEL ILLUSION

By

**James Pembroke**  
Data Analyst and Advisor

**When national curriculum levels were first devised, as broad indicators of attainment at each key stage, it was decided that Level 2 was the expected standard at key stage 1 and Level 4 was the expected standard at key stage 2.**

Levels were then split into a system of fuzzy sublevels, which supposedly afforded a greater degree of granularity and allowed for progress measures over shorter periods.

Levels and sublevels were then assigned point scores, and pupils making the 'expected progress' of 'two whole levels' had made twelve points of progress in total. Twelve divided by the four years of key stage 2 equalled three points per year, or a point per term; and if three points was our annual expected rate of progress then above expected progress must be higher than that. What's higher than three? Four!

And this became our common currency.

But wait! A point is half a sublevel. How can we track in half sublevels? Before we knew it, we had convinced ourselves there really was such a thing as 3b+, and we could even see it in pupils' books.

It was, of course, a mass illusion. And we built an entire accountability system around it.

## Levels by another name

But in 2014 the DfE announced that levels would be removed from the national curriculum. The reasons for the removal of levels were compelling. It was time to radically rethink how we tracked pupil progress.

Yet in the four years since their supposed removal, levels have

proliferated and spread, not as blatant copies of the original system, but covertly under numerous guises, and often underpinned by a remarkably similar series of point scores. Levels by another name.

## Can you make more than expected progress?

In fact, very shortly after the DfE's announcement in 2014, various solutions were rushed out by competing software companies seeking to capitalise on the chaos, or by well-intentioned LAs wanting to offer schools a common approach.

These were usually variations on the 'emerging-developing-secure' theme where all pupils began the year categorised as 'emerging' and moved through the bands as they covered more content, becoming 'secure' after Easter.

Regardless of how the curriculum was designed, the system assumed content to be delivered in neat 33% blocks for the convenience of the school term calendar, and each term's content was worth a point. The system may not have been aligned with the school's curriculum but no matter, everyone breathed easier as pupils continued to make the familiar expected progress of three points per year.

But wait! If three points is still 'expected progress', how could anyone make more than expected progress in a curriculum where pupils are pretty much constrained by the parameters of their year's curriculum content?

Cue the invention of the 'mastery' band, a complete misinterpretation where mastery is not viewed as a

process but an outcome that happens at some point towards the end of the year. Or, to put it another way: a bonus point for the bright kids.

## Impact on teacher workload

All of this is an illusion. Such systems clearly replicate the issues of levels; in fact, they magnify those issues by creating even more subdivisions in order to give the impression of accuracy. And it is deeply troubling that so many have bought into it.

All teachers need to record is if pupils are where they expect them to be at a given point in time based on what has been taught so far. Working below, working at, or working above expectations should suffice for most reporting purposes.

If schools want more granularity, then they should consider using a high-quality standardised test that provides insight into strengths and weaknesses, and places pupils' attainment onto a national bell curve.

And if flawed, neo-level tracking practices are driven purely by a desperate desire to measure progress, then perhaps it's time we considered whether we can really measure progress at all.

**James Pembroke (@jpembroke) established Sig+ in 2014 after working as a data analyst in LA school improvement and post-16 sectors for 10 years. He now works with Insight (insighttracking.com) and blogs at sigplus.blogspot.co.uk**

Read the full article at [cem.org/blog](http://cem.org/blog)



# THE BIG EVIDENCE DEBATE

**Meta-analysis involves the aggregation of data from existing studies that share key features, in order to create a summary that reflects all the available evidence.**

It can trace its early origins to methods developed in astronomy for pooling the results of multiple observations in the early nineteenth century. In the early twentieth century, these methods were developed and applied in areas such as medicine and agriculture, though it was not until the 1970s that they were at all widely used.

Gene Glass' Presidential Address to the American Educational Research Association in 1976 is seen by many as the birth of the name 'meta-analysis' and the start of quantitative research synthesis moving into the mainstream.

## Rigorous methods

In that same year, a young researcher named Larry Hedges was starting graduate school and saw the need to develop rigorous methods for synthesising research findings across studies through meta-analysis.

Hedges was a statistician who went on to develop substantial parts of the theory of the analysis and combination of effect sizes, even having an effect size measure named after him: Hedges' *g*. He was co-author of the first major textbook on meta-analysis (in 1985) and of many other textbooks and papers in the decades since.

He is an applied statistician who has engaged actively with policymakers, practitioners and researchers in a wide range of fields, not just education.

In 2018, his "scientific approach to improving education for future generations" won him the \$4m Yidan Prize for Education Research. Hedges is a colossus who has been at the leading edge of the theory and use of meta-analysis for more than 40 years.

**Larry Hedges is coming to Durham on Tuesday 4th June 2019 to defend its use.**

## Controversy

Right from the start, meta-analysis was controversial.

The eminent psychologist Hans Eysenck famously dismissed it as 'mega-silliness'. Many others have objected to particular uses or methods of meta-analysis.

In the last decade, the approach and influence of John Hattie's research summaries, based on a synthesis of thousands of meta-analyses, has been particularly controversial. As policymakers and practitioners have been encouraged, entreated or constrained to base educational decisions on the results of these syntheses, so a number critical

concerns have grown about the strength of the claims being made and their relevance for practice.

One such critic is Dylan William, well known to many for his work on formative assessment and for a lifetime's work exploring the productive interface between educational research and practice. As well as being one of the world's best educational researchers, William is at heart a classroom teacher: no one understands better the complexity of what teachers do in classrooms and the potential and limits of the role that knowledge of the results of education research can play in promoting, embedding and sustaining improvements in their practice. In 2016 he wrote:

*"right now meta-analysis is simply not a suitable technique for summarizing the relative effectiveness of different approaches to improving student learning, and any leader who relies on meta-analysis to determine priorities for the development of the teachers they lead is likely to spend a great deal of time helping their teachers improve aspects of practice that do not benefit students."*

**Dylan William is coming to Durham on Tuesday 4th June 2019 to present his arguments.**

**The BIG EVIDENCE DEBATE, Tuesday 4th June 2019, Durham**

Tickets for the event are available by ballot only. Register now: [www.thebigevidencedebate.com](http://www.thebigevidencedebate.com)

# GOOD PRACTICE FOR ALL EAL PUPILS

**Talha is a self-confident, curious and creative 8-year-old who speaks Urdu and Punjabi at home with his family and friends.**

His school wants to ensure he develops the basic interpersonal communication skills (BICS) in English that he uses in the playground, and acquire cognitive academic language proficiency (CALP) to make good progress across all areas of the curriculum.

### Establishing starting ability

Talha is not unique amongst his classmates in having a complex linguistic profile. In order to meet individual needs, Talha's school has introduced the InCAS assessment in order to establish a baseline of ability.

### Identifying Talha's strengths

We know that EAL pupils cover a wide spectrum of ability and it can take pupils between four and nine years to attain 'academic' English. The InCAS assessment can help by pinpointing both Talha's strengths and areas where he may need further support.

### Focus on reading fluency

Talha's teachers recognise that he is a motivated and conscientious student. When reading in English he is able to identify common words and sound out some unfamiliar words, although he does not always appear to understand the meaning of what he has read.

The InCAS Reading module assesses three key skills children need to understand the meaning of texts:

- Word recognition
- Word decoding
- Comprehension

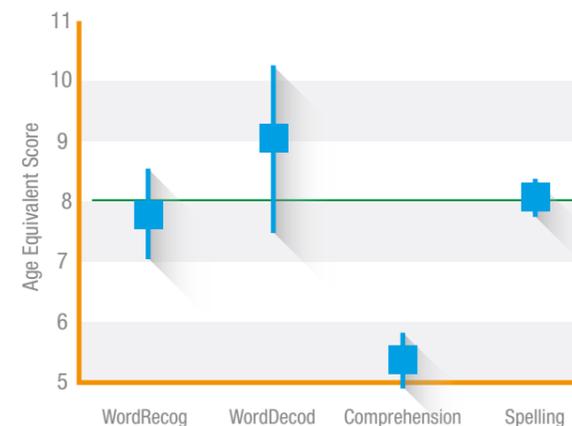
InCAS provides age-equivalent scores for Reading and Spelling. These scores are useful for making comparisons against expected attainment, and between modules, to establish areas of strength and areas for improvement.

You can use InCAS to assess pupils at any time from the end of Year 1 through to the end of Year 6, and can assess at any point in the year.

Talha's age-equivalent feedback shows that for each of the reading sections, his score is broadly in line with what you would expect to see in children of his age. However, Talha's teacher was concerned to see that his Comprehension score is below his chronological age, although all of his other scores are on, or around it.

Name	Age (Yrs:Mths)	Age Equivalent Scores (Yrs:Mths)			
		WordRecog	WordDecod	Comprehension	Spelling
Torsten	8:5	7:10	7:9	6:6	7:1
Yubing	8:0	5:3	7:5	6:1	5:6
Antonia	8:3	10:3	11:9	11:3	11:8
Talha	8:1	7:9	9:1	5:3	8:1
Alexander	7:8	7:8	7:3	5:2	6:10
Natalie	7:9	9:6	10:3	8:7	7:4

The age equivalent scores chart present the scores as ages in years and months at which a pupil is performing.



Delving deeper into the subsections of the Reading and Spelling modules enables a teacher to make direct comparisons between scores.

### Focus on reading comprehension

The Comprehension section of InCAS requires the pupil to read a passage and, when given a choice of three words, to select the word that fits into the sentence most appropriately.

Comprehension skills rely on a number of factors, such as an understanding of sentence structure and a wide vocabulary.

However, one of the main factors is reading fluency. If a pupil spends a lot of time sounding out the letters of words in a sentence (word decoding), they can easily lose track of the sentence itself and find it difficult to comprehend the overall meaning of the text.

This is a common challenge for EAL students, where comprehension skills are dependent on a range of factors, including: first and second language proficiency, the structure and writing system of the first language, reading skills and strategies previously used and background knowledge.

Talha's scores indicate that he has the key building blocks (word recognition and word decoding) to develop his reading comprehension, but he may benefit from concentrated support, for example guided reading and discussions about the texts, to allow him to flourish in this area.

### Next steps for Talha and his teachers

It's no surprise that problems with reading comprehension can impact on all areas of schoolwork. Talha's teachers can help him achieve his full potential by introducing specific learning interventions and reading fluency strategies, including:

- Using 'before reading', 'during reading', and 'after reading' strategies
- Activating pupils' background knowledge
- Conducting regular 'read alouds' to build crucial background knowledge, and foster reading comprehension and fluency
- Implementing peer-to-peer reading sessions.



To find out more about InCAS visit [www.cem.org/incas](http://www.cem.org/incas)

## DATES FOR YOUR DIARY EVENTS

Discover how CEM can help you improve standards at your school. Learn how to get the most from CEM systems and learn from colleagues.

For a full list visit [www.cem.org/events](http://www.cem.org/events)

**MAR 2019** 4 - 6<sup>th</sup>, Whittlebury Hall  
Society of Heads' Annual Conference

**MAY 2019** 11 - 12<sup>th</sup>, Crewe Hall  
Society of Heads, Deputy Heads' Conference

**MAY 2019** 12 - 14<sup>th</sup>, London  
Council of British International Schools Annual Conference

**JUN 2019** 4<sup>th</sup>, Durham  
The Big Evidence Debate

**JUN 2019** 20 - 21<sup>st</sup>, Wellington College  
The Festival of Education

**CEMblog**  
Centre for Evaluation & Monitoring

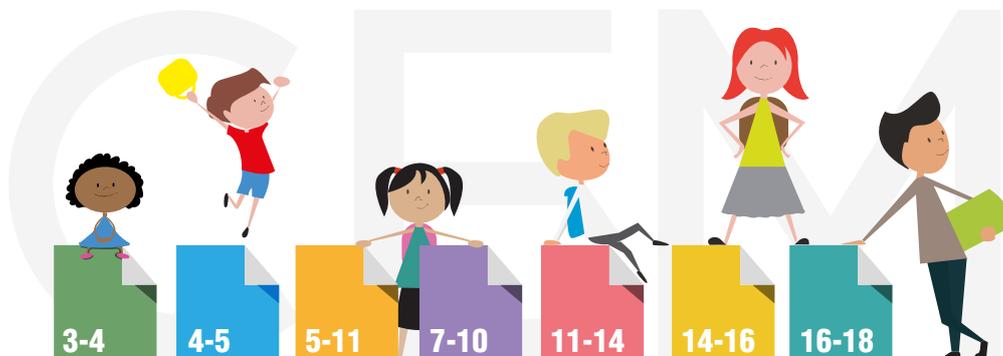
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