

Linking Research Evidence with Classroom Practice

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The problem

- How does research evidence inform classroom practice
 - how to condense all the research that is out there into a useable format
 - how to weigh contradictory evidence, especially when it has been produced in different ways

EEF website

Learning styles

Low impact for very low cost, based on limited evidence.



+2

Mastery learning

Moderate impact for very low cost, based on moderate evidence.



+5

Mentoring

Low impact for moderate cost, based on moderate evidence.



+1

Meta-cognition and self-regulation

High impact for very low cost, based on extensive evidence.



+8

One to one tuition

Moderate impact for high cost, based on extensive evidence.



+5

Oral language interventions

Moderate impact for very low cost, based on extensive evidence.



+5

The medical model

Experimental group

A random sample of people who suffer from migraine taking a new drug

The pre-test → The treatment → The post-test

Control group

A random sample of people who suffer from migraine taking a placebo

The Randomised Control Trial

Two contrasting studies

- A randomised control trial (2007-2010)
 - What impact does contextualised grammar teaching have upon pupils' writing and pupils' metalinguistic understanding?
- A longitudinal study following 36 students across a 3 year period (2013-2016)
 - What is the relationship between metalinguistic knowledge and understanding, and development in writing?

Contextualised grammar teaching

- Grammar is integrated into the writing classroom
- A rhetorical view of grammar – exploring how language works
- The focus is on function not form
- Investigating how language choices construct meanings in different contexts
- Introducing grammatical constructions and terminology at a point in the teaching sequence which is relevant to the focus of learning
- The teaching goal is to open up a repertoire of infinite possibilities, not to teach about 'correct' ways of writing.

The RCT: research design

Observations

**Writing
outcomes**

16 Intervention classes were taught
three schemes of work supporting
contextualised grammar knowledge

Pre and post tests compared to

16 comparison classes

**Teacher
interviews**

**Student
interviews**

Outcome

- Statistically significant positive effect for intervention group
- Intervention group improved their writing scores by 20% over the year compared with 11% in the comparison group.
- The grammar teaching had greatest impact on able writers
- Able writers in the comparison group barely improved over the year
- Teachers' subject knowledge of grammar was an influencing factor

Impact:

- In 2014 the project won the ESRC Impact award

The problem with it 'working'!

- It could be used to suggest the strategy is independent of the teacher
- The principles informing the pedagogy could be lost
- Teacher subject knowledge becomes the focus of the problem and the findings could be used to blame teachers
- The complex interaction of subject knowledge and pedagogic knowledge is overlooked as the context that enables any strategy

Some thoughts from Dewey

- *'professional action is not about following tried and tested recipes, but about understanding that every problem is unique'*
- *'no conclusion of scientific research can be converted into an immediate rule of educational art'*
- *'all research can give us, is an understanding of possibilities'*

An alternative model

Development in metalinguistic understanding and its relationship to development in writing

- A longitudinal study that followed 2 primary classes and 2 secondary classes of children across a three year period (4 schools)
 - Primary cohort: years 4, 5, 6 (9-11 years)
 - Secondary cohort: years 7,8,9 (12-14 years)
- In each of the 4 project classes, 9 focus-students representing a spectrum of ability
- Teachers in the study participate in three training-days in each school-year focused on the teaching pedagogy that informs the contextualised grammar approach

Methodology

The study adopts a multi-method design including:

- classroom observation data to explore the relationship between teaching and student understanding
- linguistic analysis of student written work to explore development in use of linguistic features
- Interview: student articulation of explicit grammar knowledge to explore declarative knowledge
- Interview: student writing conversations about their own writing and the choices they make to explore the relationship between metalinguistic knowledge and application
- **building case study profiles** of each of the focus children drawing on all the data sets

Some initial outcomes

- Children's use of an explicitly taught structure in writing often appears BEFORE they can explicitly name it
- Students' conceptual misunderstandings about grammatical terminology relate directly to teacher explanations (eg drop-in clauses; verb is a doing word)
- High-quality talk is critical: it is where the independent learning happens
- Metalinguistic understanding for writing is cumulative and so teaching needs to keep supporting this accumulating learning through revisiting and extending
- Making a meaningful link between the grammar and its effect in writing is crucial
- Teacher subject knowledge around metalinguistic understanding is not just about grammar concepts but also being able to look at texts (including children's writing) and notice what's happening in them

Teachers as consumers of research findings

- Engaging with the research problem as well as with research outcomes
 - How does knowledge about grammar transfer into written outcomes?
 - How does content knowledge become applied knowledge?
- Consider looking at studies that offer classroom insights as well as headline findings
- Never stop asking the question 'but is that the kind of teacher I want to be'

Teachers as researchers

- Using qualitative data
- Collecting data that allows you to explore small details and slow changes
- Following focus students
- Complementing generalisable data with a rich understanding of the particular
- Understanding rather than measuring change

Analysing student work

- Think of the work as an artefact of the lesson/experience that produced it
- Generate questions/criteria against which to analyse the whole set
 - What did everyone understand?
 - What did no-one understand?
 - Can you identify old understanding/new understanding
 - What was misunderstood?
 - Who misunderstood?
 - Can you explain any of the misunderstandings?
 - What was partially understood?
 - What content surprised you?
 - Which student surprised you?

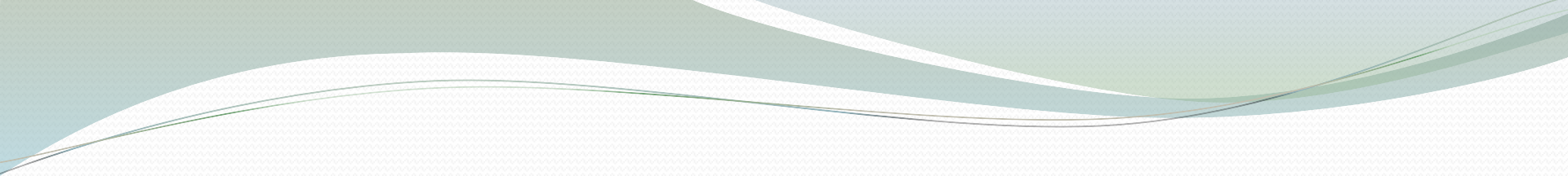
Lesson evaluations

A lesson looking at critical moments on the life stories of famous para-olympians

- I think the main message in this lesson was.....
- The part of the lesson that made this message clear was.....
- The part of the lesson that was most difficult to understand was.....
- What made me think the most about being a para-olympian was....
- What made me think the most about myself and sport was.....
- My teacher did this lesson because.....

Conclusions

- An over-emphasis on experimental designs that test individual strategies could lead to policies which do not connect with the day-to-day experiences of teachers and learners
- Teachers can claim the role of the 'expert' in their own classrooms and develop a bottom up approach to strategic initiatives which strongly resists the one size fits all approach to teaching.
- Research has more to offer education than simply testing potential solutions; it can also help in understanding the nature of problem
- Research should seek to understand the situated complexities of teaching and learning in order to influence policy makers and support the learning experience



**Teachers not strategies
make the difference**