What Works for Teachers:
Engaging teachers in effective education research within the UK and Ireland

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Effective education research has a specific meaning in Education. Basically, it is the endeavour to find out 'what works' in terms of educational policies, programmes and practices for teachers. Generally, this work is underpinned by evaluation methods that explore the effects of programmes etc. on measurable pupil or school outcomes for a large group or population of pupils. For example, does a particular literacy programme improve pupil literacy outcomes better than normal or 'business as usual' literacy teaching for similar groups of students?

This is a simple and valuable endeavour, but it requires rigorous evaluation methods to answer the question properly. These methods need to show that there is the casual link between the programme under investigation and any changes in overall pupil outcomes. In order to do this properly there must be a comparison group. We need to compare groups (e.g. schools) delivering specific programmes against control groups (e.g. similar schools) that deliver standard educational practices and compare the outcomes of the two groups (or populations) at the end. This method identifies the 'effect' of the programme and is referred to as an experimental study or Randomised Controlled Trial (RCT).

Although there has been a long history of RCT studies in education, there was a burgeoning of this research in the North and South of Ireland from the year 2005. This was mainly as a result of a significant investment by a philanthropic organisation called Atlantic Philanthropies (AP) through their Child and Youth programme funding. Over 10 years AP invested in 52 innovative programmes many of which were in schools or an education setting based. It is estimated that these 52 programmes were delivered for 90,000 children and young people and with over 4000 professionals (many of whom were teachers). However, AP encouraged all the programme delivery organisations

and educators they funded to run their programmes alongside an RCT evaluation. As a result many new educational programmes were introduced in schools (and after-schools) and tested for their effectiveness using RCTs. Throughout this substantial programme of work, teacher engagement in the 'what works' approach and RCT evaluation process was crucial for the successful completion of both programme delivery and evaluation.

More recently, 'what works' research has continued and grown in England through the work of an independent charity called the Education Endowment Foundation (EEF). Since 2011 EEF has conducted (or is conducting) over 150 RCT evaluations of educational programmes. This is valuable information on each of these individual programmes but EEF has also drawn this information together into their *Teaching and Learning Toolkit*. This toolkit summarises overall evidence on effectiveness, cost and evidential support for a wide range of teaching practices on population level attainment outcomes. Teachers can obtain evidence summaries and effectiveness estimates on pupil attainment on everything from using good feedback strategies and setting homework through to things like the use of school uniforms and a pupil repeating a year. The main reason for this is to produce a toolkit that teachers can use to make decisions about what programme and practices they might implement in their schools and classrooms. In fact, this is a demonstration of the more general desire to engage teachers more closely in understanding 'what works'. Not just as a delivery partner but as an active teacher/researcher.

One further development in the world of effective education research is that many of the programmes evaluated through RCTs show no significant effect on population level pupil outcomes. This is a sobering lesson and it is often the case that teachers are simply not provided with programmes that they can feasibly deliver in their classrooms given other constraints such as time and their professional development. As a result there is increasing realisation that teachers should be involved at all stages of evidence-based programme development and evaluation. This helps ensure programme feasibility and that the evidence is being produced on issues that are relevant to teachers. This is something that we recognise in the Centre for Evidence and Social Innovation (CESI) and advocate for the co-design of evidence-based educational programmes between researchers and teachers in order to produce programmes that work in 'real world' classrooms and which are focused on 'real world' issues. CESI's commitment to this notion is demonstrated by an active partnership project between teachers within the Hallam Teaching School Alliance (HTSA) and CESI researchers. Together we are working on the production of the SMART Spaces GCSE science revision programme, which is based on spaced learning or distributed practice techniques.

In summary, teachers are being engaged in effective education research at three main levels. The first is teacher understanding and partnership in the 'what works' process of conducting rigorous population level evaluation alongside programme delivery (for example in the AP and EFF projects). The second is at the level of consumers of 'what works' evidence (e.g. through EEF's Teaching and Learning Toolkit). Third is the idea that teachers need to be engaged in all stages of 'what works' research (including programme design, implementation and evaluation), thus ensuring teachers are shaping the educational research agenda.

Alastair Gittner's comment:

I, like an increasing number of teachers in England, are interested in applying the findings of educational research in my practice. This started from a professional understanding of the need to improve my practice but also partly from a political pressure for more successful outcomes for all students.

It was a natural step then to move towards becoming a research-practitioner and be involved in developing research projects. Through my work within the Hallam Teaching School Alliance and on SMART Spaces, I have both a growing understanding of how research is completed and also of the validity and significance of research findings. The feasibility and fidelity of a research project can be improved by teachers' involvement in the planning and by ensuring that it takes into account how both classrooms and schools operate. Thus, they can make it more relevant to the needs of teachers and pupils.

There is an allure for teachers in "what works" research, the search for the magic bullet that will help students learn, but as Dylan Wiliam said recently, "Everything works somewhere; but nothing works everywhere." It is important that I and other teachers are able to critically assess research evidence and ensure that we apply it appropriately.

Further Reading

Using randomised controlled trials in education

Connolly, P., Biggart, A., Miller, S., O'Hare, L., & Thurston, A. (2017). *Using randomised controlled trials in education*. SAGE.

Atlantic Philanthropies Children and Youth

https://www.atlanticphilanthropies.org/themes/children-youth

Education Endowment Foundation https://educationendowmentfoundation.org.uk/

SMART Spaces

https://educationendowmentfoundation.org.uk/projects-and-evaluation/projects/smart-spaces/

Teaching and Learning Toolkit

https://educationendowmentfoundation.org.uk/evidence-summaries/teaching-learning-toolkit/

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