

### OUR FIRST TRI EDITORIAL Nadia Siddiqui

Translational Research Insights (TRI) is a new free brief open access on-line and print journal, published four times per year, accepting articles of 2,000 words, written for a general audience interested and involved in educational improvement.

TRI will be available on-line from the DECE website: <a href="www.durham.ac.uk/dece">www.durham.ac.uk/dece</a>. If you would like a hard copy of an issue, please send an email request to: <a href="mailto:nadia.siddiqui@durham.ac.uk">nadia.siddiqui@durham.ac.uk</a>.

An evidence-based model for education has gained attention in the last few decades. Research charities, and governments councils. have channeled funding resources establishment of organisations dedicated to the development of a securer evidence-base for use in education. This has been motivated by an agenda to improve the quality of school education, to increase the opportunities and learning outcomes for disadvantaged young people. Establishing an evidence base in education is now an international undertaking, and there are increasing examples worldwide of education reforms and policies which are evidence-led rather than driven largely by politically or commercially motivated interests.

However, despite some progress towards creating a more secure evidence base in some areas, there has been no equivalent improvement in developing secure knowledge on how best to get that evidence into use, or even what difference it makes when such evidence is used. Translational Research Insights is an initiative to help fill this gap in understanding the most effective routes, to help robust evidence inform and provide a basis for education policy and practice.

TRI publishes short articles on the topic of improving the use of good research. The article for this first issue is slightly shorter than articles will be for future issues, due to the length of this editorial. The Editors welcome articles from academics, policy-makers, practitioners, organisations and members of the general public. Articles must have a focus on the evidence of how

best to get high quality education research findings into more widespread use in real-life. This includes how to evaluate ways of getting evidence into use, how to judge high quality evidence, and examples of high quality evidence that should be in more widespread use for policy/practice. We can explain more in future editorials, but hope that the issues will be shaped mainly by readers and stakeholders. The article for this issue is based on a large systematic review of evidence on how we can get educators to use research evidence as published in the new book pictured below.

# How can we get educators to use research evidence?

A review of the best ways to get evidence into use from many areas of public policy Stephen Gorard, Naomi Griffin, Beng Huat See and Nadia Siddiqui



### How to contribute

Articles should be no more than 2000 words and should be accompanied by a brief introduction to the author(s) (100 words), an abstract (200 words) and up to 5 keywords. Articles should be submitted by email to nadia.siddiqui@dur.ac.uk as MSWord attachment. Articles will be reviewed by the Editorial Board, and any changes requested. Editors are happy to discuss feasible articles.

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How can we get educators and others to use good research evidence in policy and practice?

#### Stephen Gorard

Over decades, there have been calls by concerned stakeholders to improve the quality of education research, and some progress has been made towards creating a more secure evidence base in some areas. However, there has been no equivalent improvement in secure knowledge about how best to get that evidence into use, or even what difference it makes when such evidence is used. Our new systematic review looks at what little is already known about different ways to get research evidence into use in education. It does so by summarising the results of a large-scale review of the literature. A total of 323 most relevant studies were found across all areas of public policy, and judged for quality and contribution.

Very few studies were of the appropriate design and quality needed to make robust causal claims about evidence-into-use, and even fewer of these concerned education. This means that despite over 20 years of modest improvement in research on what works in policy and practice, the evidence on how best to deploy such evidence is still very weak.

The review found some examples of researchers describing (or claiming) the impact of their own research. There is a range of work in most fields of policy and practice, including thought pieces on how evidence-use might work or be improved, or developing conceptual models for improving the uptake of evidence. Much of this is in nursing and health sciences. Some looks at the competences needed for knowledge transfer. Much of it is repetitive over many years. There are also toolkits and similar guidelines for evidence translation, or using evidence in policy-making, and ideas for training practitioners in evidence. However, none of these have been tested properly, and so none provide robust evidence of their effectiveness. The existing evidence on the relative 'effectiveness' of approaches is largely limited to personal experience, case studies, observational data, interviews and surveys, in passive designs. There are even systematic reviews of such interview-based work.

There is a very large body of research that has asked those involved in evidence-use how it works and what the barriers and facilitators are. There is work that has looked for traces of evidence in policy documents. There are small before-and-after studies, and relatively large scale surveys. But there is almost nothing testing out these ideas in a robust manner in any field, and even less in the fields of education policy and practice. What is needed are more robust evaluations of evidence into use, over a longer period, using a variety of routes and approaches. We found 30 such promising studies across all areas of public policy, and the review therefore focuses on the results of these.

There is a wide range of possible routes for getting evidence-into-use, and these could be classified in a number of ways. Raw evidence from research can simply be accessed by research users, as when policy-makers and their advisers are given access to research reports and articles. This is a cheap form of knowledge transfer, but it requires a skillful user to search, read, and summarise the evidence, and then to implement the changes. Alternatively, the raw evidence can be engineered into an artefact, or redrafted to another format, for easier use. But this may do injustice to the fuller evidence, and it makes the evidence harder for users to judge in terms of its underlying trustworthiness compared to similar artefacts that may not be as scrupulously evidence-based.

Two dimensions of evidence-into-use

	Passive transfer	Engagement in transfer	(inter)Active transfer
Plain evidence	a) e.g. open access to journals	b) e.g. journal clubs	c) e.g. practitioner inquiry
Modified evidence	d) e.g. EEF Toolkit for practitioners	e) e.g. Think tanks, workshops	f) e.g. internships, research schools
Engineered evidence	g) e.g. lesson plans	h) e.g. hotlines, helpdesks	i) e.g. legislation for population measures

Whether research findings are used as they are, or used to create an artefact that is meant to be easier for policy/practice, there can also be variation in how much activity goes into the attempted transfer of knowledge. Modified research findings can be simply made available, as with the popular Toolkit approach, or there can be active engagement in explaining what the results are and why they should be trusted. These two dimensions are illustrated in the table above.

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The idea that evidence is created by experts and then drawn on as necessary by policy-makers and practitioners is not an accurate description of the process of evidence-informed evidence use. It is not even a useful prescription for what should happen. Simply giving research users access to information about research and expecting them to act upon it, has been shown not to work.

Although users say they prefer more active approaches such as workshops, training or knowledge brokers, this is no better in terms of changing their behaviour than simply making evidence available. Overall, there is little reason to think that access to plain evidence will assist use, even when there is some engagement such as training for users. Providing access to raw evidence or even slightly modified simplified evidence is apparently not an effective way of getting it used, even if that evidence is presented to users in a more active way.

Some further effort at dissemination or transfer must also take place. And even this will not work unless all parties want it to work. Otherwise the most effective approaches are probably those where the user need not be aware of the underlying primary or modified evidence but is simply made to act in accordance with it — such as where fluoride is added to water, or teachers use centrally provided lesson materials.

As with any attempt to change or improve behaviour, the role of money could be key in encouraging the use of evidence in policy/practice. Those who fund education research need to be more responsible with the money they are entrusted with by tax-payers or charity-givers. The research they fund must be as high quality as possible, and the findings must be made as useful as possible. This is currently not happening. The most common approach used by funders to promote the use of evidence is to insist that users are linked to any project. Yet they are unable to provide any serious evidence that this approach is effective. The review suggests that this approach will not work.

Clearly, the preparation and continuing development of teachers should have a substantially evidence-led basis, which it currently does not. This is another area where funding could play a role. Initial teacher training courses must be delivered, at least in part, by experts in education evidence. And the state should only fund them, and recognise their qualifications, if they are.

All policy and practice interventions in education should be independently evaluated before any reform takes place, instead of using rather haphazard pilots and phased rollout. This is easy to do and costs no more than current practice in this area. Clear objectives must be pre-specified, and side effects taken into account.

Incentives could be used, at least in the short term, to encourage users to rely more on evidence, and for the public to demand this. Public funds could be shifted towards only paying for programmes that have been demonstrated independently to have strong promise. Good evidence of effectiveness should be transparent in all policy and practice decisions about new programmes, and only those that offer a good return should be funded.

A central repository of effective programmes should be built up by funders or others (and not just for teaching in schools). In the same way that any area of research should start with a full review of existing evidence, so new results should also be placed clearly and coherently in the context of that prior evidence. Each new result should add to a kind of narrative "Bayesian" synthesis, considering how each new piece of research changes what we already think we know about in the repository, rather than seeking use and definitive impact in its own right.

Those in charge of education reform must be responsible, and demand evidence-led policy and practice throughout the system. Programmes shown not to work, or where there has been no robust evaluation, should be actively discouraged. Researchers need to be equally responsible, and resist the clear demand for their evidence to be used, if it is used incorrectly, by not conniving with invalid use just so that they can claim 'impact'. These are all largely ethical issues, concerning the extent to which all of these stakeholders genuinely care about improving education. Who wants to help sort this out?

For a copy of the full review please email <a href="mailto:s.a.c.gorard@durham.ac.uk">s.a.c.gorard@durham.ac.uk</a>

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The Durham University Evidence Centre for education (DECE) is a research centre that generates, assesses, synthesises and promotes robust evidence related to education policy and practice, with particular regard to inequalities and educational justice. The Centre includes educational sociologists, psychologists. geographers, health scientists, methodologists, and practitioners, based on a lifelong and society-wide view of education. It takes the wider outcomes of education seriously, attainment and cognitive development, but also issues such as mental health, well-being, attitudes and aspirations, personality, trust and civic participation, teacher supply and teacher and teaching quality.

Our overall aim is to make a difference in education, improving outcomes that are relevant now and in the future.

#### **NEWS**

#### Awards:

DECE achieved a 2018 BERA Public Engagement and Impact Award: <a href="https://www.bera.ac.uk/blog/lets-make-education-fairer">www.bera.ac.uk/blog/lets-make-education-fairer</a>

#### **Events:**

DECE held an ESRC funded public engagement event, as part of the ESRC Festival of Social Sciences, called 'Let's make Education Fairer', (Durham, November 2018) with expert presenters and panellists: Professor Stephen Gorard, Professor Vikki Boliver, Dr Beng Huat See, Dr Nadia Siddiqui, Dr Rebecca Morris, Professor Steve Higgins and Pupil Premium Champion Dave Cookson.

(See: <a href="https://youtube/BNNBSJIwcWs">https://youtube/BNNBSJIwcWs</a> for an event summary video and: <a href="https://youtube/5dkV8uNenbU">https://youtube/5dkV8uNenbU</a> to view the full Question Time style session.)

Professor Carole Torgerson presented at the 'Randomised controlled trials in education' workshop (Milan, October, 2018) on 'Undertaking randomised controlled trials in education settings:

Challenges and solutions'. During the presentation, Professor Torgeson's paper was being translated into a visual diagram for the audience (below is the completed visual).



### New Books by Professor Higgins and Professor Gorard:

Gorard, S. (2018) Education policy: Evidence of equity and effectiveness, Bristol: Policy Press.

Higgins, S. (2018) Improving Learning: Meta-analysis of Intervention Research in Education, Cambridge University Press.

#### New Gold Open Access paper:

See, BH and Gorard, S. (2019) Why don't we have enough teachers?: A reconsideration of the available evidence, *Research Papers in Education*.

https://www.tandfonline.com/eprint/7QeZtdK7kSSvtuMyHIhq/full

(see <a href="www.durham.ac.uk/dece/publications">www.durham.ac.uk/dece/publications</a> for an up to date list of publications)

### **DECE Members include:**

Prof Stephen Gorard (Director)

Prof Jens Beckmann
Prof Vikki Boliver
Dr Nadia Siddiqui
Dr Beng Huat See
Prof Peter Tymms
Dr Louise Gascoine
Dr Naomi Griffin

Prof Carole Torgerson
Dr Nadin Beckmann
Dr Mandy Powell
Prof Christine Merrell
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