



Department of Education
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50 Years of Education at York

Maximising research use in policy and practice in education

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What the talk will cover

- The rationale for maximising research use;
- How research influences (or not) policy/practice;
- Building capacity in policy-making & the teaching profession;
- Building a higher quality evidence base for the future – investing in quality research;
- Assessing research and its impact.

The importance of maximising research use

- **Economic** imperative to justify public spending:
e.g. child with conduct disorder aged 10 cost public services in England £70k by age 27, compared to £7k for others – yet evidence on preventing these problems is ignored (Scott et al, 2001);
- **Moral** imperative to ensure those providing services do so informed by the best possible evidence (e.g. Oakley, 2000);
- **Academic** imperative – Research Assessment (REF) impact case studies & statements; significance of outputs; Funding applications require impact plans; Research Councils require impact report 12 months after the end date of the award.

What is the problem?: The lack of evidence-informed policy and practice

- Policy makers rank academic research well below special advisers (media background), experts and think tanks as sources of evidence (Campbell et al 2007; Rich 2004; Rigby 2005);
- Policy makers often regard research findings as impenetrable, ambiguous, conflicting, insignificant, untimely or only partially relevant. In turn, they display confusion about what constitutes evidence and its role (Brown, 2012; Rickinson, Sebba & Edwards 2011).
- Confusion about evidence is rife amongst politicians, civil servants & the public: *The honourable member for Braintree cited evidence from the Sun, so I want to refer to a recent edition of the British Medical Journal* (ex LibDem MP Evan Harris in the parliamentary debate on cancer)

What stops evidence being used?

- Numbers to be influenced by evidence? Nearly half a million teachers in England;
- Practitioners are too busy, cannot locate relevant and accessible evidence, lack confidence to 'judge' research;
- *“There is nothing a politician likes so little as to be well informed; it makes decision-making so complex and difficult.”* (John Maynard Keynes)
- ‘Expert systems such as EBP [evidence-based practice] are attempts to manufacture trust as a legitimating exercise for the mandate of professional authority in social work’ (Webb, 2002)
- What counts as evidence, the nature of evidence & how it is used in decision-making is highly contested.

Expectation for practitioners to use research

For a teacher to cite research in a staff room ...would indicate that he or she was studying for a part-time degree ... or rehearsing for an inspection and would be regarded by most colleagues as showing off

Hargreaves, D. (1996) TTA Lecture

No reference to use of research in teachers' or social workers' professional standards in England

Models of research impact

1. Push - incentivise producers (researchers) to undertake relevant, robust research;
2. Pull – incentivise Service providers/practitioners
Better articulation of benefits to funders (e.g value-added, prestige); research ‘training’ for policy officials (see Ontario); role of ‘insider-researchers’ in government, two-way secondments;
3. Networks & brokerage - bring together researchers, users and policy makers - influence on design, research questions, verifying findings, ongoing dialogue **without losing research integrity.**

York and others presenting today have been exemplary in education and social work in doing this networking.

(Lavis et al 2003, Levin 2011, Nutley et al 2007, etc)

Improving the use of current evidence – building capacity

- Teaching & Learning Research Programme (TLRP)
£80m worth of projects focusing on teaching & learning, user engagement, student outcomes
<http://www.tlrp.org/>;
- Systematic reviewing – over 100 reviews with summaries eppi.ioe.ac.uk/, quality assure research;
- Teaching School alliances - Joint Practice Development – teachers collaborative research across schools;
- User engagement – funders now expect (though lack understanding) this throughout research process but mostly user engagement tokenistic;

The current evidence base in children's services (adapted from Stevens et al, 2009, p.286)

Methods used in 625 studies (selective)	No of studies	% of studies
Qualitative	230	37
Mixed method	108	17
Longitudinal	74	12
Quantitative dataset analysis	16	3
Non-randomised trial	8	1
RCT	3	<1
Systematic review	2	<1

Improving the future evidence base

- Randomly controlled trials – £200m (£125m from DfE) invested in England - Education Endowment Fund summarises strength of evidence on key areas <http://educationendowmentfoundation.org.uk/toolkit/>
- Interrogating large databases e.g. on educational outcomes & longer term employment, health etc
- Longitudinal studies – EPPE – early years research following children from 1-16 years – very influential
- Mixed methods – to inform us of ‘what’ and ‘how’
- Quality assurance, synthesis and scaling up of practitioner inquiry.

Interrogating research use empirically: Research Supporting Practice in Education (RSPE), OISE, UoT
<http://www.oise.utoronto.ca/rspe/>

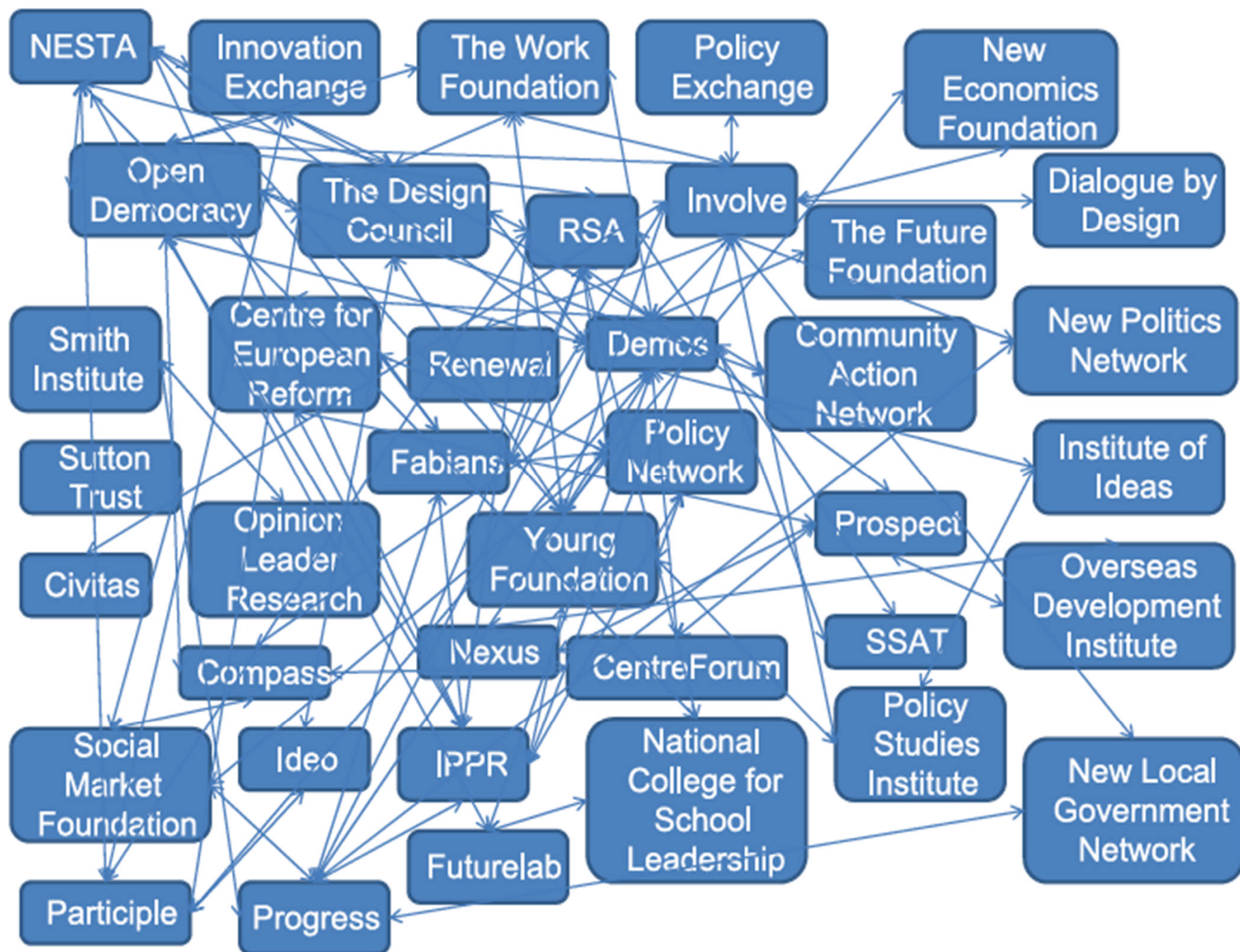
- Research use in secondary schools & districts (LAs). Used knowledge claims as basis for intervention – ‘mediated’ headteacher study groups, resources on web. Had little impact;
- KM in universities – Interviewed 18 education faculties in leading research universities worldwide regarding the role of KM - limited in most faculties, done by individual faculty members rather than at institutional level;
- Survey of 500 grant-holders to determine extent and nature of their KM efforts - tools and techniques used, mediators, linkage activities, project funding earmarked for KM.

Research Supporting Practice in Education continued..

- Website analysis – developed metric for assessing organizational KM strategies (different types, ease of use, accessibility, focus of audience) >100 education organisations in Canada, UK, US & Australia: national/ local govt depts., universities, funders & ‘knowledge brokers’. Limited evidence of activities that **build interpersonal connections** that are known to lead to greatest research impact.
- Facts in Education: service to counter press reporting, correct significant factual errors about education that appear in various news media across Canada, providing the source & empirical evidence base e.g. class size.
- Education Media Centre in England is brokering service between journalists and researchers offering timely evidence & access – IEE York has led these developments.
<http://www.cebenetwork.org/projects/education-media-centre-%E2%80%93-enhancing-use-evidence-media>

The role of research mediation in maximising research use

- ‘Research mediation’ describes individuals, groups, organisations & processes that make research & practice or research & policy-making more accessible to one another through translation, brokering, synthesis & making connections (Sebba 2013);
- Mediation is undertaken by funders, media, policy analysts, educators, lobby groups, think tanks, policy advisers, etc;
- Mediators have multiple positions as trustees for each others’ organisations, sit on each others’ councils, write, speak and ‘appear on platforms’ at each other’s events (Ball & Exley 2010, p.155);
- Dedicated individual liaison between policy makers and researchers during commissioning/reporting (Martinez and Campbell, 2007);
- Problem definition ...expansion of public debate, innovation & knowledge brokerage (McNutt and Marchildon 2009);
- linking researchers with users throughout the research process increases research impact (e.g. Rickinson et al, 2011; Ward et al, 2009).



The media and think tanks

Media presented all the think tanks as credible sources of research, facts, and figures on education, regardless of the extent to which each think tank emphasized policy and political advocacy over the professional norms of academic research e.g. peer-reviewing (Haas 2007)

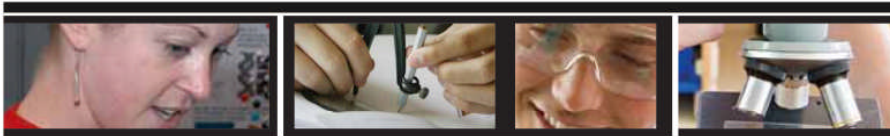
Welner et al (2010) Think Tank Research Quality

- Policy makers & the media cite think tank reports that don't meet minimal standards of research quality.
- 59 reviews of reports from 26 mainly US 'free market' think tanks – independent evaluations using criteria from APA research standards.

Concluded that:

- Most are not original research – policy briefs based on (in)adequate reviews.
- Publications of think tanks are disproportionately represented in the reporting of major national newspapers (US).
- Think tank network in US - echo each others' arguments, cite and republish each others' work (similar to Ball & Exley 2010).
- “ Many of the nation's [US] most influential reports are little more than junk science” (p.xiii)

Some good examples of
impact from educational
research




Science education in schools

Issues, evidence and proposals

A Commentary by the Teaching and Learning Research Programme



 The Association
for Science Education

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RESEARCH
PROGRAMME

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& SOCIAL
RESEARCH
COUNCIL

Teaching and Learning RESEARCH BRIEFING

June 2003 Number 2

Towards Evidence-based Practice in Science Education 2:

Developing and evaluating evidence-informed teaching sequences

Can it be shown that some science teaching approaches work better than others for achieving specific curriculum aims? The science education research literature identifies learning difficulties and may suggest ways of addressing these. Few studies, however, develop and evaluate teaching interventions. This project involved designing, implementing and evaluating short teaching sequences, drawing on available insights from research. Pupils' learning was measurably better in several important respects than for others following the schools' normal approach to the same content.

- It is possible to design teaching sequences, informed by research, which result in better understanding by pupils of conceptual goals. → Curriculum development and accompanying CPD programmes, focussing on the teaching of key scientific concepts and informed by research, can raise the achievement of pupils.
- Pupils following the designed teaching sequences are no better than others following the school's usual approach, at questions requiring factual recall. → Science testing regimes that focus heavily on factual recall may well over-estimate pupils' understanding of key conceptual content.
- Teachers not involved in the development of the teaching sequences can use the materials to achieve better results with their pupils. → Implementation of carefully designed teaching approaches, particularly when linked to systematic CPD, has the potential to lead to widespread improvement of pupils' understanding of key science concepts.
- The use of research-informed teaching materials can lead to significant changes in the way teachers deal with content and classroom talk. → CPD programmes aiming to increase science teachers' effectiveness could usefully contain a component on the use of research-informed teaching materials.
- Teachers responded positively to teaching sequences which draw on insights from research, providing the sequences were perceived as being workable. → A potentially successful method of disseminating, to teachers, the results of research on science teaching and learning involves *transforming* those findings into workable practices for the classroom.

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& LEARNING
RESEARCH
PROGRAMME

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www.tlrp.org

Teaching and Learning Research Programme

TLRP commentary 3 drew substantially on the science network

identified 6 types of research, impact from immediate to long term:

- Action research, intended to provide insights into possible improvements:
- Research into the consequences of existing policies or practices
- Research to identify practices that help achieve particular goals
- Research to inform policy or practice in a specific aspect of science
- Research undertaken from particular psychological or sociological perspectives
- ‘Blue skies’ research aimed at generating new knowledge whose impact on practice is uncertain, diffuse, or long-term.

Each implies a particular relationship between policy-making, classroom practice and teacher education – must be fit for purpose, too few examples of linkage in science education.

Effective Pre-school and Primary Education (EPPE) : An example of influence

- 6 year study of 3000 children for more than 13 years;
- multi-level longitudinal data to show longer term effects of preschool;
- influence far-reaching – Select Committee, Treasury, Cabinet Office and informed the expansion of nursery places for 3 and 4 year olds, early years curriculum & workforce remodeling;

How?

- Timing
- Sound methodology – mixed methods
- Clear messages
- Responsive to policy and practice changes

EPPE: Dissemination, meetings etc

In one month, March 2007:

- Early Years Advisory Service Annual Conference
- Forum of Nursery Teachers Annual Conference Belfast
- TLRP Equality and Diversity London
- Early Years staff Portsmouth
- Care and Education Consultative Group UNICEF London
- Early Ed regional conference Cheshire
- Students' annual conference Wolverhampton
- Annual Conference of Early Years Educators Nottingham
- Nordic Educational Research Conference Finland
- Society for Research in Child Development Conference Boston
- Heads and Directors of Early Years Conference London

Time and resource investment?

Where are we now: rhetoric or reality

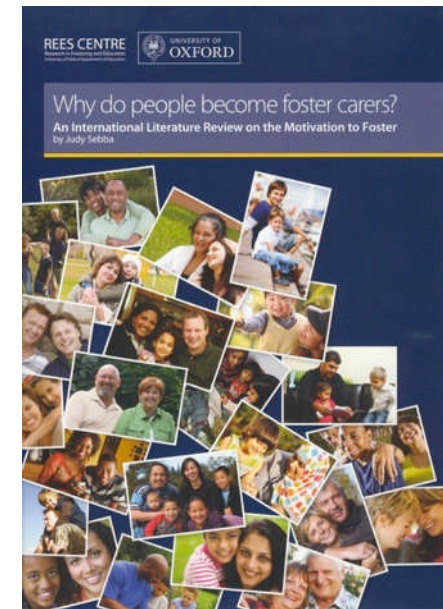
- Gove (& others) declarations of commitment to evidence-based policy and practice e.g...*increasingly the changes which are being made in teaching are changes which are rooted rigorously in evidence from the chalkface*. (NCTL, April 13)
- 2 Goldacre reports and 'evidence centres' pushing more RCTs across government but noting: *...different methods are useful for answering different questions. RCTs are very good at showing that something works; they're not always so helpful for understanding why it worked* (Goldacre, 2013, p.16);
- Policies e.g. Free schools, curriculum changes, do not reflect any of the 6 types of research that the science network identified.

So what can we do?

- Make use of ‘best available evidence’ a requirement in professional standards & build into infrastructure of policy-making;
- Improve reporting of research which ‘lets down’ high quality work – descriptive validity (Farrington, 2003)
- Improve access to synthesised, quality assured evidence in priority areas – open access;
- User engagement throughout the process;
- Support practitioners to use research (and in some cases to engage in research) through closer collaboration of researchers and professionals;
- Most importantly, interrogate research use and evaluate any initiatives designed to increase impact – only then can we really know what is achieved.

Rees Centre for Research in Fostering and Education

- User engagement throughout the research process - providers, carers, young people;
- Synthesis of existing international evidence;
- New projects include trials & mixed method;
- More accessible findings & debate about them – blog, twitter, speaking to groups;
- Monitor & evaluate our impact e.g. web stats show >600 hits per month but what action is being taken – close contact with practice enables this to be measured.



Paradigm wars will not bring about social justice or justify public expenditure

The goal of an emancipatory (social) science calls for us to abandon sterile word-games and concentrate on the business in hand, which is how to develop the most reliable and democratic ways of knowing, both in order to bridge the gap between ourselves and others, and **to ensure that those who intervene in other people's lives do so with the most benefit and the least harm.**

References

- Ball, S. & Exley, S. (2010) 'Making policy with 'good ideas': policy networks and the 'intellectuals' of New Labour', *Journal of Education Policy*, vol 25, no 2: 151 – 169.
- Brown, C. (2012) 'Adoption by policy makers of knowledge from educational research: an alternative perspective', *Issues in Educational Research*, vol 22, no 2: 91-110.
- Campbell, S., Benita, S., Coates, E., Davies, P. and Penn, G. (2007). *Analysis for policy: evidence-based policy in practice*. London: GSRU.
http://www.gsr.gov.uk/downloads/resources/pu256_160407.pdf
- Farrington, D. (2003) Methodological quality standards for evaluation research. *Annals of the American Academy of Political and Social Science*, 587, 49-68
- Goldacre, B. (2013) *Building Evidence into Education*
<http://media.education.gov.uk/assets/files/pdf/b/ben%20goldacre%20paper.pdf>

References continued

- Hargreaves, D. (1996) *Teaching as a research-based profession: possibilities and prospect* London: TTA.
- Haas, E. (2007) 'False equivalency: think tank references on education in the news media' *Peabody Journal of Education*, vol 82, no 1: 63-102.
- Lavis, J., Robertson, D., Woodside, J. M., McLeod, C. B., & Abelson, J. (2003). 'How can research organizations more effectively transfer research knowledge to decision makers?', *The Milbank Quarterly*, vol 81, no 2: 221-48.
- Levin, B. (2011) 'Mobilising research knowledge in education', *London Review of Education*, vol 9, no 1: 15-26
- Martinez, N.R. and Campbell, D. (2007) 'Using knowledge brokering to promote evidence-based policy-making', *Bulletin of the World Health Organization*, vol 85, no5: np
www.who.int/bulletin/volumes/85/5/en/index.html
- McNutt, K. & Marchildon, G. (2009) 'Think tanks and the web: measuring visibility and influence', *Canadian Public Policy*, vol 35, no 2: 219-236

References continued

- Nutley, S. M., Walter, I. and Davies, H. (2007) *Using Evidence: how research can inform public services*. Bristol: The Policy Press.
- Oakley, A. (2000) *Experiments in Knowing: gender and method in the social sciences*. Cambridge: Polity Press.
- Rich, A. (2004) *Think tanks, public policy and the politics of expertise* Cambridge: Cambridge University Press.
- Rickinson, M., Sebba, J. & Edwards, A. (2011) *Improving research through user engagement* London: Routledge.
- Rigby, E. (2005) 'Linking research and policy on Capitol Hill' *Evidence and Policy* vol 1: 195-213.
- Scott, S., Knapp, M., Henderson, J. & Maughan, B. (2001) 'Financial cost of social exclusion: Follow-up study of antisocial children into adulthood', *British Medical Journal* vol 323: 191-193.
- Sebba, J. (2013, in press) An exploratory review of the role of research mediators in social science. *Evidence and Policy*.

References continued

- Stevens, M., Liabo, K., Witherspoon, S. and Roberts, H. (2009) 'What do practitioners want from research, what do funders fund and what needs to be done to know more about what works in the new world of children's services?' *Evidence & policy*: vol 5, no 3: 281-294.
- Ward, V., House, A. and Hamer, S. (2009) 'Knowledge brokering: the missing link in the evidence to action chain?' *Evidence & Policy*, vol 5: 267-79.
- Webb, S. (2002) Evidence-based practice and decision analysis in social work: an implementation model *Journal of Social Work* 2, 1, 45-64
- Welner, K.G., Hinchey, P.H., Molnar, A. & Weitzman, D. (2010, eds.) *Think tank research quality: lessons for policymakers, the media and the public*. Charlotte, North Carolina: IAP