Strategies for Facilitating Knowledge Adoption: How Researchers can Better Influence Education Policy

Dr. Chris Brown

Institute of Education, University of London
christopher.brown@mac.com

Doi:10.5901/jesr.2012.v2n3p53

Abstract *This paper examines how researchers can improve their chances of influencing education policy. It presents the findings of a literature review and interviews with educational researchers and policy-makers in England and Wales. The projects' aims were: i) to understand the actions researchers should undertake in order to successfully influence policy; ii) to augment existing work by developing a suite of empirically inspired knowledge adoption strategies specifically for researchers. The paper concludes by presenting four strategy types that will aid researchers to influence policy debates: i) research outputs which meet policy-makers' specific requirements from research ('policy ready' strategies); ii) the effective communication of research ('promotional' strategies); iii) 'traditional' academic behaviour ('traditional' strategies); iv) academics shifting their relative position with regards to the how 'privileged' they are by policy-makers, or how policy-makers perceive the policy context to which their research pertains ('contextual' strategies).*

Key words *Evidence-informed policy; knowledge adoption; knowledge mobilization; impact of research; knowledge strategies*

1. Introduction

Much has been written in terms of how research can enhance policy and it has been suggested that there are a number of key points at which research can assist the policy-making process: for instance, by aiding the identification of a problem, by helping to create, form or steer the public agenda or by aiding (or inspiring) policy directorates in the development of their initiatives (Nutley *et al,* 2007; Perry *et al.,* 2010; Brown, 2011). At the same time, the impact of research outputs may be manifold and are likely to range in nature from actual use; where tangible change occurs on the back of research findings, to one of 'enlightenment'; where outputs serve to enhance or add to users' perspectives on a given issue. These roles have been defined by Weiss (1979, 1982) as the 'instrumental' and 'conceptual' uses of research, respectively. In terms of policy development, examples of both instrumental and conceptual impact may be found in recent papers and studies; for instance, Taggart *et al.* (2008)'s description of the instrumental influence of the *Effective Pre-School and Primary Education 3-11 longitudinal study*. Levin (2008), meanwhile, provides an example of conceptual use when he notes that the implementation of England's smoking ban (in 2007) can be contextualized in terms of the decades of peripheral, enlightenment type activity which preceded it.

The means through which policy makers encounter and engage with evidence has also been conceptualized in a variety of ways. For example, via the notion of 'knowledge exchange'; defined by the Canadian Health Services Research Foundation as 'a collaborative problem-solving between researchers and decision makers', or Cooper and Levin's (2010) concept of 'knowledge mobilization'; described as a process of strengthening the connections that exist between research, policy and practice. I use the phrase 'knowledge adoption' to depict the process, in all its complexity, of policy-makers digesting, accepting and then 'taking on board' research findings; noting their relevance, benefits or future potential (see below and Brown, 2011). I also suggest that researchers' greatest chance of influencing policy is by facilitating a process of knowledge adoption at those points in the policy process where policy makers will be most receptive to evidence or new ideas.

This paper examines the strategies university research units or individual researchers could utilise in order to facilitate a process of knowledge adoption with policy-makers. It is derived from a recent project which sought to examine how research(ers) might advance impact with regards to the development of education policy. Specifically, the aims of the study were twofold: i) to determine, via literature review, those factors which affect the process of knowledge adoption; ii) to address existing conceptual gaps by developing a suite of empirically inspired knowledge adoption strategies for use by educational researchers. As such, this study has relevance both for researchers seeking to achieve impact from their work (whether that be conceptual or instrumental) and policy-makers seeking to improve the efficacy of their policy development.

2. Methodology

The study was designed to augment existing empirical studies in two ways: i) by addressing a gap in the focus of extant studies for example, Moore *et al.,* (2011) spotlight (health) policy-makers as audiences for research; their resultant strategies are thus diametrically positioned in nature to (although compatible with) those presented below for researchers as knowledge communicators. Other studies (e.g. Innvaer *et al.,* 2002; Campbell *et al.,* 2007) consider impediments to knowledge adoption but do not propose corollary solutions. ii) Using a qualitative approach also distinguishes the analysis from the quantitative work and meta-analyses that abound in this area (Cooper and Levin, 2010). As a result, the knowledge adoption strategies presented are based on a first hand engagement with a multitude of perspectives, with each interview also providing rich contextual data. Much of this contextual data and many of the viewpoints encountered echoed those impediments to evidence use highlighted by the policy-makers interviewed in Innvaer *et al.,* (2002) and by Campbell *et al.,* (2007). As such, these strategies may be seen as directly addressing the issues raised in past analyses of policy-makers' views on this topic.

In order to investigate this area and to produce recommendations for how researchers might direct their approach to knowledge adoption a configurative, systematic review of relevant literature was undertaken. Following the review, 24 semi-structured, in-depth interviews were held with educational researchers and policy-makers working in England and Wales. Cooper and Levin (2010) note that the majority of studies in the field of knowledge mobilization (their term) are Canadian based, derive from the health sector and use quantitative or meta analytical methods. This also potentially places empirical distance between the findings of this project and that of others fulfilling these criteria. It may be assumed however, that jurisdictions and sectors will have some similarities and generalisation across them may be possible. Conversely then, while the findings here relate to the education sector in England and Wales, they may also be applicable to other contexts. Specifically, those of other UK based central government departments.

2.1 The literature review

The aim of the literature review was to provide an overview of existing theory and an understanding of the type of empirical studies previously undertaken in this area. Whilst systematic in nature (i.e. it applied a systematic and rigorous approach to searching out literature), the review did not replicate all of the steps systematic reviews employ: this was because the primary requirement of the review was for it to provide general understanding, rather than a comprehensive assessment of empirical evidence. This corresponds with a configurative rather than aggregative approach to reviewing literature (Sandelowski *et al*., 2011; Gough *et al.,* 2012).

The operationalization of the literature review comprised analysis of: i) material examining the factors affecting the realisation of evidence-informed policy making and that which detailed recent initiatives in this area (e.g. Davies, 2000; Sebba, 2000; Pollard, 2004; Campbell *et al.,* 2007; Nutley *et al.,* 2007; Moore *at al.,* 2011; Rickinson *et al.,* 2011); ii) the extensive critical discourse surrounding notions of evidence informed and 'what works' (e.g. Stronach and MacLure, 1997; Strathern, 2000; Hammersley, 2001; MacLure, 2005; Biesta, 2007; Ball, 2007; 2008; Ball and Exley, 2010); and iii) material relating to conceptual and empirical studies of knowledge mobilization (e.g. Mitton *at al.* 2007; Levin, 2008; Sin, 2008; Cooper *et al.,* 2009; Cooper and Levin, 2010). Combined, these three subject areas encapsulate existing thought relating to knowledge adoption.

From analysing the literature, it was argued that a myriad of factors affect the process of knowledge adoption. These are detailed in full in Brown (2011) but, in aggregate, comprise: i) factors that centre on the ability of researchers to communicate to, or develop relationships with, policy-makers. For example, the involvement by policy-makers in research studies through networks or other forms of user engagement (Kirst, 2000; Pollard, 2004; Davies, 2004, 2006; Sebba, 2007; Cooper and Levin, 2010; Moore *et al.,* 2011; Rickinson *et al.*, 2011); ii) factors which affect the propensity for policy-makers to engage with evidence. For instance, how 'accessible' the research message is terms of the level of detail used, mode of communication employed or the way in which it is presented (Lavis *et al.*, 2003; Davies, 2006; Campbell *et al.,* 2007; Levin, 2008; Brown, 2009; Ball and Exley, 2010; Moore *at al.,* 2011). What was absent, however, was significant detail on/studies relating to specific attempts to provide educational researchers (or researchers generally) with guidance as to how they might facilitate policy related knowledge adoption. This absence is typified in Mitton *et al.* (2007: 756), who note that "there is very little evidence that can adequately inform what [knowledge adoption] strategies work in what contexts". At the same time it is argued that developing an understanding of such strategies is vital in order that the knowledge adoption process might be facilitated effectively (e.g. to deal with the impediments to knowledge adoption identified in Innvaer *et al., 2002* and Campbell *et al.,* 2007).

2.2 Interviews

In order to develop individual and in-depth accounts of the views of policy-makers and researchers/knowledge providers on the factors associated with knowledge adoption, 24 semi-structured, in-depth, interviews were employed undertaken with policy-makers and researchers.. Gibson (2008) suggests that 'open' forms of interview (such as the semi-structured approach) typically encourage an environment in which interviewee and interviewer interact to create both detailed and nuanced discourse. Those classed as policy-makers were either politicians (current or ex-Ministers) or civil servants in central government. Researcher respondents comprised those working for Universities or think tanks. Whilst a purposeful sample of 'critical cases', corresponding directly to the analytical requirements of the project was selected (Brown and Dowling, 1998), care was taken to include both advocates (those who believe that evidence can and should be used to inform policy/those responsible for knowledge adoption activity) and critics (those who regard the concept of evidence-based policy as undesirable/unfeasible). This provided a wide range of views and opinions from which to draw upon and assess. It also provided a rigorous critique of the study and its resultant conceptual/theoretical development. The distribution of the final participants is presented below (note the number adds to more than the total interviewed as these groups are not mutually exclusive):

Table 1: Distribution of interview participants

Group/view point	Number
Politicians based in England and Wales	2
Civil servants based in England and Wales	4
Researchers considered from the literature, or self identified, as favoured by politicians or civil servants	9
Researchers considered from the literature, or self identified, as less favoured by politicians or civil servants	6
Academic researchers critical of the concept of evidence-informed policy	4
Academic researchers in favour of evidence-informed policy	11
Respondents belonging to think tanks, political advisors or those operating at the higher levels of Davies' (2006) policy making 'food chain'	3
Total	24

2.3 Analysis of the interview data

Following the interviews, thematic analysis was employed to identify the key knowledge adoption-related behaviours that were or might be employed by researchers. Themes and codes were developed empirically through the breakdown of the data generated in the interviews. Empirical coding may be regarded synonymous with inductive analysis; that is, where data analysis precedes the development of theory. Theoretical development within the study began, however, with the literature review and was thus augmented rather than initiated during the data analysis stage. This approach corresponds to Mason's (2002: 180) definition of 'abductive' analysis where "theory, data generation and data analysis are developed simultaneously in a dialectical process". Mason's (2002) posited approach thus accounts for the way in which the research process moved back and forth between analysis and the development of theory, detailing themes and constructing codes relating to knowledge adoption from both the interview data, and the literature review. The result has been the development of four approaches, designed to help educational researchers successfully facilitate the knowledge adoption process. These are the provision of 'policy-ready' outputs; the use of effective techniques to promote research; traditional academic behaviour, and; researchers facilitating perception shifts as to their reputation or that of their field of interest.

2.4 The validity of the interview data

Lincoln and Gubba (1985) advance a number of techniques that might be utilised by qualitative researchers in order to demonstrate the 'trustworthiness' of their analyses and these were fully embraced throughout. In particular, the technique of 'member-checking'; interpretations and conclusions were thoroughly tested with those who participated in the study. Interpretive rigour is also achieved through the use of verbatim quotations; an approach which accords with the request made by Fereday and Muir-Cochrane (2006) for transparent 'illustration'. It is argued that both the positive responses received from respondents after assessing the study's findings, combined and the direct reflections of the participants in the reporting of the analysis, thus add a level of 'face validity' to these four strategies, now presented below.

3. The requirement from policy-makers that research outputs be 'policy ready'

In Campbell *et al.,* (2007) it is suggested that analytical findings must relate directly to policy makers' areas of interest and that researchers should attempt to develop a stronger awareness of the specific policies they were supporting. In Brown (2011), however, policy-makers indicated that they sought more from the outputs of research studies than simply the presentation of findings. All of the civil servants and Ministers interviewed, for example, sought detail on 'application': that is, advice and recommendations on how to act upon or implement research outputs. Responses here included the following:

> …you can see that the research evidence tells you that [a] sort of practice really makes a difference, [but] how do you actually go about making that happen?
> (Civil Servant #2)

> The way research is presented isn't helpful. Its presented, not interpreted or analysed or rendered fit for policy use… it doesn't say… what the applications are…
> (Civil Servant #3)

Policy-makers' preference for this type of advice is likely to have a number of different origins: for example, formulating and presenting evidence and its implications in this way will make it easier for civil servants and others to envisage how such knowledge might be used; it may also stem (in education) from the increased level of 'micro-management' by policy-makers in terms of localised practice in schools (Rickinson *et al.*, 2011). Thus policy-makers, who tend not to be educationalists, will require help to devise 'what works' practice which corresponds to the policy outcomes they wish to achieve. Policy-makers' desire for application is also likely to be the result of the role organisations, such as think tanks, now play in policy development (discussed later below), and such requirements will be reinforced by any lack of capability on the part of policy-makers to digest academic research (Levin, 2004).

It was felt by respondents that one manifestation of 'applied' advice could be demand driven; policy-makers specifying policy questions such as: "we want to achieve political aim 'x' with capability constraints or other issues; 'y'. How would you, as an academic researcher, advise going about that and what are the issues involved?" One academic suggested, for example, that the development of the National Curriculum had occurred in such a way. One policy-maker responsible for departmental research also noted that this approach had, on occasion, materialised in the development of government Green Papers. Policy-makers and some researcher respondents also felt, however, that this type of advice could also be provided by researchers actively moving beyond the general principles established by their findings; hypothesising the potential implications of their evidence for policy and/or providing recommendations for how such findings might be generalised or applied across the education system as a whole. For example, in a similar vein to the way researchers involved with the *EPPE* study presented their findings to policy-makers: a key question for *EPPE* was to understand whether pre-school, primary education or home experiences of learning had an impact on social inequality (Siraj-Blatchford, 2010). Interviewees involved in the project suggested that exploring and presenting the possible national/system wide impacts of interventions, both financially and on children's outcomes, had helped policy-makers better understand how early years policy might be improved.

This first strand of analysis thus implies that 'policy ready' outputs should be developed by researchers. The aim of such outputs is to increase policy-makers' demand for a given study by improving their [policy-makers'] understanding of how its findings may be applied or utilised; typically through the development and delivery of detailed advice and recommendations to civil servants/Ministers currently in power. Given the nature of policy development, 'policy ready' outputs will be required to be delivered at appropriate points in the political cycle and will need to meet the political requirements of their intended audience in order for them to be adopted.

Whilst the concept of 'policy ready' appears to correspond with suggestions made within the literature review that research must: i) be 'useful', 'applicable' or 'relevant' (e.g. see Moore *et al.,* 2011) or ii) that that policy-makers are keen to receive 'straightforward' narratives or stories coupled with advice they can understand (Lindblom and Cohen, 1979; Kirst, 2000; Court and Young, 2003; Davies, 2006); as a concept policy ready moves beyond these output requirements. As a minimum 'policy ready' outputs relate to the implications of findings and the recommendations or possible solutions for policies which stem from them. Ultimately, 'policy ready' outputs may also detail how recommendations might be fulfilled and how the education system may need to be altered to remove and blockages to their implementation. They therefore result from the researcher acting more as a pseudo policy-maker than simply being able to communicate their research effectively.

The notion of policy ready also raises an issue with regards to capacity or the ability of researchers to develop their recommendations in this way. An alternative approach, however, may be through better use of knowledge brokers. Sin (2008) argues that the principal role of the broker is to encourage research use through the successful translation of findings. Sin (2008) also contends that there are five key roles that may be held by knowledge brokers. Of these, the roles of 'matchmaker', brokers who bring knowledge creators and knowledge users together, 'translators and processors', intermediaries who interpret and adapt information so that it is clear and useful and intermediaries who use 'multiple dissemination routes', that is those who employ different strategies to get new knowledge put into practice are likely to be of most use in helping researchers develop 'policy ready' outputs.

4. Knowledge adoption via the production of 'traditional' academic outputs

Both the interview data and the literature review provide reasons as to why academic researchers often choose not to develop their research findings into 'policy ready' outputs: some respondents discussed the need to retain a degree of distance and independence from the policy making process, others argued that research wasn't always amenable to being manipulated in this way (also see Rickinson *et al.,* 2011). It was also suggested that researchers should be involved in critical theorizing rather than just problem solving: undertaking research in order to provide critique 'of' policy, as much as they might undertake research 'for' policy (e,g, Troyna, 1994; Moore, 1996; Ozga, 2000). In addition, however, it was observed by respondents that there have traditionally been few incentives in place for them to develop 'policy ready' findings compared to those which encourage the development and distribution of 'traditional' academic outputs.For example, one noted that:

> …if you know that the brownie points are going to be for scholarly work that may not have much direct or obvious policy impact, well, that's what you're going to concentrate on.
> (Academic #10)

Other respondents observed that the submission guidance for a number of journals explicitly discouraged the reporting of anything that cannot be substantiated; in the American Educational Research Journal's *Guidelines for Reviewers,* for instance, it is specified that reviewers must look at how the data were interpreted in order for the conclusions to have been reached.[1] Similarly in *Standards for Reporting on Research in AERA Publications*, it is stated that authors should make clear how their analysis procedures led to the outcomes reported:[2] such criteria incentivising researchers to state only what their data explicitly enables them to.
At the same time, a contrasting view was held by those who argued that tax payers, research funders and other stakeholders had a 'moral right' to demand that research is used to influence, alter and change the social world:

> …realistically the tax payer ought to be seeing an impact of their research dollars on the research that gets done… or the tax payers ought not to be funding it.
> (Academic #4)

These respondents believed, therefore, that there exists an imperative to attempt to influence policy but, simultaneously, found themselves constrained or influenced by existing incentives to behave in traditionally academic ways or to produce traditional academic outputs. This 'tension' between responding to traditional incentives and seeking to influence policy is exaggerated further when examining policy-makers' requirements for 'policy ready' outputs (above and Kirst, 2000), which specifically require researchers to move beyond the data. Any action directed in this way thus comes with the opportunity cost of not producing an output that may enhance an academic's career or standing.

It was contended, both in the literature review and by respondents, that the outputs of think tanks, consultancies and other, non-academic, knowledge providers are not constrained in this type of way. Think tanks, for instance, do not have to compete for Economic and Social Research Council funding, or participate in the Research Assessment Exercise and

[1] See: http://www.aera.net/publications/Default.aspx?menu_id=34&id=10722
[2] See: http://www.aera.net/uploadedFiles/Publications/Journals/Educational_Researcher/3506/12ERv35n6_Standard4Report%20.pdf

so are free to write directly for the policy user, free from the scrutiny routinely encountered by academics (Mortimore, 2000; Haas, 2007). Since they are not faced by requirements to provide 'traditional' outputs, these non-traditional knowledge providers can concentrate exclusively on outputs which are 'policy ready'. This ability for think tanks (and others) to write directly for the policy user, without any formal processes of quality control, would appear to put academic researchers at a disadvantage in terms of influencing policy. But it is also argued that the tension faced by academics is not a polemic: 'traditional' academic outputs, such as articles in scholarly journals, are also likely to help researchers illustrate how their work sits within any given epistemological paradigm by adding weight to claims of quality or the appropriateness of the methodology employed. For instance, for the findings of a research study to have been published in an academic journal, potential articles will have been subject to peer review, and the quality, rigour and methodology of their studies assessed.[3] As such, one interviewee, a former government minister, noted that:

> When I was a Minister I would have said "well its been published so it must be alright".
> (Politician #1)

Whilst one civil service policy-maker also suggested that, whilst not an indication of providing all the qualities required by policy-makers:

> Publication in journals suggest that the author has done something right; that they have produced a high quality study, that it's well respected, that sort of thing.
> (Civil Servant #4)

'Traditional' strategies, which primarily comprise the undertaking of research, the development of theory and the publication of results in academic journals, or via other academic-centric means of communication are thus a vital component of the knowledge adoption process. This is because such strategies enable researchers to demonstrate the quality, rigour and methodology of their work and show how research findings relate to the current epistemological preferences of policy-makers. An accumulation of traditional academic outputs will also improve academic standing and may also add credence in terms of the reputation or 'credibility' of the researcher in question; all of which are key knowledge adoption factors (Kirst, 2000; Court and Young, 2003; Campbell *et al.,* 2007). However, that whilst 'traditional' strategies are the ones most prominently employed by academics, they are the knowledge adoption strategy least favoured by policy-makers who do not consider these types of outputs accessible. As a result, if the focus of researchers is purely on the academic-centric communication of their findings, then any adoption of knowledge disseminated in 'traditional' ways is likely to be policy-maker initiated and so demand led (with conceptual impact therefore limited in scope).

5. The promotion of evidence to policy-makers

Within the literature review, a large number of studies centred on the requirements of policy-makers for research to be communicated effectively. For example, in an early analysis by Lindblom and Cohen (1979) it is argued that the use or impact of evidence may be hindered because research outputs are seen by policy-makers as being inaccessible. Others (e.g. Hillage *et al.,* 1998; Mortimore, 2000; Levin, 2003; Gough, 2004; Lagemann, 2008) build on Lindblom and Cohen's analysis by arguing that, despite any desire on the part of policy-makers to take on board evidence, the majority of academic research cannot help government find solutions to current and immediate issues and challenges because findings are communicated through channels that policy-makers find esoteric and presented in a language that they cannot quickly digest.

A combination of reviewed literature and interview data indicates that four main factors affect academics' ability to effectively promote their work; these are: i) are: the 'accessibility' of the research message (Lavis *et al.*, 2003; Davies, 2006; Brown, 2009; Moore e*t al.,* 2011); ii) clarity in terms of how research is presented (Nutley et al., 2007; Brown, 2009; Ball and Exley, 2010); iii) the efficacy of the mode through which evidence is communicated (Paisley, 1993; Mortimore, 2000; Lavis, *et al.*, 2003; Davies, 2006; Levin, 2008; Brown, 2009'; Moore *at al.,* 2011), and the level of (proactive) contextualization and tailoring that has been provided (Davies, 2006; Brown, 2009; Moore *et al.,* 2011). Again, little detail was provided on the specific actions or strategies that might enable these factors to be tackled by researchers.

[3] For example, see: http://www.iejcomparative.org/submission_criteria.php

Conversely, the interview data (and the findings of interviews in Innvaer *et al.,* 2002 and Campbell et al., 2007) provided a number of examples or clues as to the types of actions that may be required in this area. The analysis below thus covers four of the main evidence 'promotion' strategies that were derived from the interview data: the timeliness of outputs; the use of coding, signalling, marketing and branding; the modes of communication employed; and the type of discursive style and level of detail that is used when communicating:

5.1 The timeliness of outputs

Academic respondents discussed the need for research outputs to be appropriately timed. For instance, one told of how they engineered one aspect of their work so that it was timed to coincide with the political cycle:

> [At the time of the general election] we did election briefings; summary accounts of main policy issues… written in an accessible way… to feed into the debate around that time.
> (Academic #9)

Other respondents engaged in proactive behaviour to ensure that policy-makers were presented with relevant messages at optimally appropriate points in the policy making process.

> We pitch the commentaries that have contemporary issues so we're of concern… [and we] take them to market more quickly than [traditional] research projects.
> (Academic #11)

It was also suggested by academic respondents that the identification of appropriate windows of opportunity, in which researchers could or should act, depended on effective horizon scanning. Such future gazing type activities were seen to require the monitoring of political, media and pedagogical developments and the ability to spot occasions for action. But they were also regarded as requiring the capability to respond quickly.

The 'timeliness' of outputs as a knowledge adoption strategy directly relates to a requirement, expressed by policy-makers, for research to be delivered at key points in the decision making process (e.g. see Moore *et al.,* 2011; where strategies developed by policy-makers had also attempted to address this need, or Campbell *et al.,* 2007 who discuss policy makers requirements for real time information). Such behaviours are also geared towards creating a 'demand' for the evidence in question by providing researcher generated reasons for policy-makers to take on board more information (e.g. Nutley *et al.,* 2007).

As a researcher driven strategy, 'timeliness' should also be addressed critically. For example, 'timeliness' may be seen to compel academic researchers who wish to help solve problems or issues to structure the timing and nature of their work to the agenda of government. This then precludes such researchers from developing open relationships with policy-makers and from delivering messages that provide challenge and help steer policy in new directions (Troyna, 1994; Mortimore, 2000; Ball, 2007). In Brown, (2009), it is proposed that academic researchers should aim to be 'proactive criticisers': proactively scheduling work so that government policy can be critically analysed in a timely, accessible and rigorous way. This notion was also reiterated by a number of others authors (Pestieau, 2003; Taylor, 2005; Davies, 2006; Council for Science and Technology, 2008). It is thus suggested that, if employed in this way, a strategy of 'timeliness' may enable researchers to engage with government, but do so without losing academic independence.

5.2 The use of coding, signalling, marketing and branding

It is argued that signalling and coding techniques (Brown and Dowling, 1998) were employed by researcher respondents to ensure that meaningful points could be communicated in a way that might attract policy-makers. For example, one academic noted a forthcoming publication:

> It will be rather quite cleanly written, jargon free, use of photographs, lots of use of white space etc. to try and engage politicians and, indeed, interested public on what is known [on the topic in question] with links to "if you want to find out more, here's where to go" kind of thing.
> (Academic #9)

In terms of the publications produced as part of the Teaching and Learning Research Programme (TLRP) it was stated that:

> We employed a professional corporate design specialist to design TLRP, to come up with the logos and the typeface and some of the basics, so we have identity guidelines, as it's called in the trade, which go on all the TLRP outputs. So that blue cover colour, a sort of take on UN blue for independent research-y stuff. The typeface is Helvetica Light which is also supposed to be associated with independence… There are various parts of the design which are exactly the same aspects of design in any corporation which is to convey the quality of its products.
> (Academic #11)

Nutley *et al.* (2007: 71) contend that "presentation is key: research must be attractive… and visually appealing". It is argued, however, that coding and signalling techniques, move beyond this; they serve as marketing tools which aim to promote a brand image, or a particular 'take-out' message about the research output(s) in question; for example its neutrality. As such, effective coding and signalling may serve to enhance the perceived credibility of researcher; an issue identified from the literature review as key in terms of positively affecting the process of knowledge adoption (e.g. Kirst, 2000; Court and Young, 2003; Campbell *et al.,* 2007).

5.3 The modes of communication employed

It is argued that an appropriate choice of method or mode of dissemination is vital to attracting the attention of potential users (Mortimore, 2000). Existing literature indicates that most academic respondents used journal articles as their main mode of communication (e.g. Hillage *et al.,* 1998; Campbell *et al.,* 2007). The majority of academic respondents were of the view that policy-makers, especially politicians, failed to engage with any type of formal research literature. The interview data confirmed this indicating that most policy-makers found such material difficult to digest:

> Most academic research published in leading journals is published for other academics because nobody else reads those journals… So the stuff is written for an academic audience, it's not written really by and large for a general audience and that can be an issue.
> (Civil Servant #2)

> I think the problem with researchers is that they don't know how to communicate… often [through] some sort of obtuse academic journals… it is poorly presented.
> (Civil Servant #6)

The result, as Campbell *et al.,* (2007) note, being that all but the most relevant and accessible analytical reports are left unread.

Face-to-face communication is generally preferred by policy-makers as an alternative to the use of journals (e.g. see Innvaer *et al.,* 2002). For example, a regular research seminar, held by one Department for Education, was regarded as particularly useful:

> At the minute we hold a Ministerial seminar series. And we've brought in external academics who've been working on a particular topic of interest, to give a seminar of their work.
> (Civil Servant #5)

Academics also reflected on the importance of face-to-face communication:

> [With face-to-face communication] you have much greater opportunity to explain, to point out the nuances, to point out the subtleties of evidence to me is so important.
> (Academic #5)

Increased interaction in order to facilitate face to face communication is also a strategy that has been employed by policy-makers (e.g. see Moore *et al.,* 2011). That the interview data suggested face-to-face was also one of the most common modes of communication employed by academics (second only to journals) conflicts, however, with the findings of Paisley (1993) Lavis *et al.* (2003) and Levin (2004). These authors argue that researchers are currently broadening their

dissemination efforts via more extensive use of websites and are only concentrating to a lesser extent on more active strategies such as researcher/practitioner workshops.

Other modes of communication had been tried and potential ideas suggested by policy-makers. Moore *et al.,* (2011) for example, note attempts involving the use of targeted emails which signpost policy-makers to repositories of research. Of those interviewed, one told of their experiences in the USA, where research reports could be downloaded into 'iPod' type formats, this meant that audiences could access a presentation and commentary on the findings whilst away from the office. Generally, alternative forms of communication had not been incorporated into academics' overall approach to dissemination:

> I suppose the other thing that we haven't exploited at all yet… is things like Facebook, Twitter and all the new models – well, new to me – models of communication that offer lots of possibilities about how you present information.
> (Academic #10)

And, overall, discussion by academic researchers on alternative communication types was limited. Given policy-makers' reactions to the extensive use by academic researchers of formal research literature, alternative forms of mass communication will also be required if academics wish to influence policy-makers; with new media approaches representing a cheaper option to face to face communication.

5.4 The type of discursive style and level of detail that is used

For any mode of communication to be successful, an appropriate discursive style will be required (Lavis *et al.*, 2003; Davies, 2006; Brown, 2009). One policy-maker respondent, in discussing the clearing of research briefs produced by academics, noted:

> The last lot, I had to reject three because the summaries were just unintelligible, let alone the main report. So even words like "exogenous"… its not necessarily easy for a non-technical audience to engage with. So writing in really simple [plain English] terms is important.
> (Civil Servant #5)

The importance of writing in a way appropriate to the audience was also often both recognised and attended to by academic respondents:

If you are actually trying to address a policy making audience then you have got to do something probably quite different. You have got to accept that the first part of what you present is going to have to be quite short, written in non academic language and is going to have to relate to a current policy issue in some way.
(Academic #7)

Another suggested that when communicating to policy-makers, they too tried to reduce the level of 'jargon' employed:

> So on the [the respondent's website] we have summaries that are written in plain English so that non-researchers can understand them.
> (Academic #4)

Finally, one academic respondent noted that, in their organisation, specific individuals were employed to transform academic discourse into a language which policy-makers could quickly and easily digest:

> We write articles and the… publications person… tries to make that in a more accessible language for policy-makers, politicians and the general public.
> (Academic #9)

This function, akin to the 'translators and processors' role performed by knowledge brokers (Sin, 2008), was not mentioned by other respondents. It thus appears to be unique as a service, specifically offered by this respondent's institution/university rather than something provided universally by universities (an international review by Sá *et al*., 2010,

also notes that only a small number of universities provide this type of assistance).

Likewise, all respondents acknowledged that policy-makers were unlikely to digest significant amounts of detailed information in relation to a specific report or output. In describing the level of detail that should be provided to policy-makers, a number of researcher respondents touched upon the Canadian Health Services Research Foundation's 1:3:25 model:

> We always produce a 1:3:25… if you turned in a 130 page report, apart from a few [government] researchers, nobody would actually read it. Also… we do, as in the Cochrane model, now we give them the two sentence, plain English summary.
> (Academic #5)

Both the level of detail and the discursive style employed correspond to the 'accessibility' of the message (noted by Campbell *et al.,* 2007, as relating to 'format', 'language' and 'length'). That is, these strategies address the need for research findings to be explained in language which is easy to digest and set out in a way that ensures attention is not distracted, or attention spans exceeded (Backer, 1991). In doing so, detail should be concentrated on the things that matter to policy-makers (such as recommendations) rather than the things that matter less within the policy context (for example, extensive detail on methodology, presented at the beginning of a report).

6. Shifting policy-makers' perceptions as the researcher concerned or the ideas to which their research pertains

Current literature suggests that policy-makers are more likely to engage with research outputs if they are perceived to sit within a wider corpus of socially robust knowledge and/or if the researcher responsible is highly regarded and, as a result, 'privileged' by researchers (Gibbons, 1999; Campbell *et al.,* 2007; Brown, 2011). This was affirmed by the interview data: in discussing privilege afforded to researchers by policy-makers, one policy-maker noted: "you want people of prestige and reputation" (Civil Servant #6). One think tank interviewee also suggested that:

> You're judged by the quality of your previous work, if you've had the good ideas in the past then people are going to come to you in the future.
> (Consultancy/think tank #1)

Both literature and data also illustrated how the level of social robustness of the evidence in question is vital to facilitating knowledge adoption; and the idea that bodies or corpuses of knowledge were more influential than the findings of single studies was also touched upon. For instance, Campbell *et al.,* (2007) note that policy makers seek consensus between studies; one policy-maker interviewed, meanwhile argued that:

> [If a] body of research seems to be coming to compelling conclusions over time [then] this is what we should be doing regarding… kids on free school meals or whatever.
> (Civil Servant #10)

What was not addressed within the literature reviewed are the specific ways in which researchers might positively affect their reputation, or that of the idea to which their idea pertains. Conversely, interview data indicated that researcher respondents engaged (or noted the need to engage) in a variety of activities in order to enhance these two aspects. One academic involved in the *EPPE* study, for example, spoke ardently about the importance of such strategies:

> Its not just presentational skills and being able to talk to people in an engaging way, its [also] doing all the homework of [preparing the ground].
> (Academic #15)

And, as a result:

> [*EPPE's* messages are] being promulgated into ground that has been prepared already, not just by the people [communicating the message] but also by the networks to which they belong.
> (Academic #15)

Another academic noted the need for those who wish to influence policy to build up a level of trust:

> And the reason that they're [those who are successful in influencing policy] so influential is that they, they build up a trust… with various policy-makers, who know that these are people who will either tell them – they'll tell them something useful that respects the perspective of a policy-maker.
> (Academic #13)

As part of the process of developing trust, academic interviewees suggested that potential influencers often engage in behaviours which enable them to "remain connected and to establish a brand for themselves" (Academic #13): for example, by ensuring that they are present at meetings or seminars where it is known politicians will be in attendance. This reflects findings from Moore *et al.,* (2011) which suggests that where policy-makers frequently interact with researchers they are more likely to develop a level of trust with them. It was also suggested by respondents that if academics can develop an association with those already close to politicians, then this may further improve their chances of being privileged and so enhance their potential to influence. In particular, liaison via either teachers' trade unions or think tanks were viewed as effective entry points in order for researchers to be privileged by politicians in the educational arena.

In a similar vein, a small number of academic researchers described how they would attempt to lobby policy-makers in relation to a particular idea or point of view. These efforts at lobbying were not designed to specifically advocate the findings of one individual study, but to promote the more general idea that educational programmes, whose efficacy had been proven through research, should be considered a 'good thing'. It was suggested that the actual processes involved in such lobbying included: liaison with think tanks who were regarded as having influence; use of high profile figures and the media; face-to-face meetings with policy-makers and a constant 'social placement' of the idea:

> We meet a lot with think tanks who influence policy. We would be lobbying advisors to the Education Secretary. We would do a lot of writing about it.… We meet often with the people at the DfE. And we keep hammering the idea.
> (Academic #4)

These activities are described as 'contextual' strategies and are designed to improve the reputation of the researcher or the social robustness of the idea or policy context to which their research pertains. This aim sets them apart from approaches which directly involve any attempt to communicate the findings of a specific project. As a result of such behaviour, academics may see their position vis-à-vis policy-makers improved and will find it easier to affect the adoption of knowledge moving forward. An assessment of the interview data suggests that it is only academics working in a limited number of areas who have or are actively developing contextualising strategies: of those interviewed, it appeared to be predominantly researchers involved on the *EPPE* study, those involved in Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre), the (as was) Teaching and Learning Research Programme and those working for the Institute for Effective Education. Since these strategies appear to be successful in enhancing a researcher's overall position, it is suggested that perhaps academe generally could benefit from adopting them more often.

7. The knowledge adoption strategies that emerged from the data and literature review

In summarising the analysis above, it is apparent that academic researchers have a number of knowledge adoption applications or functions that they are seeking to achieve with their research; policy-makers also have specific requirements for research outputs that need to be met in order that they might adopt them. Policy-makers, for example, require research outputs to be 'policy ready'; applications on the part of researchers comprise both the use of research to influence policy, and use of research in a 'traditional sense': that is, to develop an academic's career in reaction to incentives put in place by government, Universities or other mechanisms. Likewise, a number of promotion type activities and requirements also emerge: policy-makers expressed a desire for outputs to be communicated simply and presented in ways that are accessible (also see Campbell *et al.,* 2007; Moore *et al.,* 2011). Academics, meanwhile are concerned as to how a given viewpoint or position might be influenced: academics use communication and other strategies to directly promote specific research outputs to policy-makers; promotion also relates to academic's own standing vis-à-vis policy-makers, or to an idea or wider corpus of knowledge in order to enhance its level of social robustness.

Since these knowledge adoption behaviours and corresponding requirements relate to either application or promotion and are directed at either developing policy or developing academic outputs/an academic's career, they may be set out as four knowledge adoption strategy types. These are labelled in the following way: academics providing

outputs which attempt to meet policy-makers' and politicians' specific requirements from research ('policy ready' strategies); researchers seeking to effectively communicate and/or use effective techniques or channels to promote their research ('promotional' strategies); academics engaging in 'traditional' academic behaviour ('traditional' strategies); academics attempting to shift their relative position with regards to the how 'privileged' they are by policy-makers (which affects the ease with which they can access or influence them), or how policy-makers perceive the policy context to which their research pertains ('contextual' strategies).

These four strategies are presented below as a matrix that summarise the strategies employed, whilst also providing a visual key as to the nature and purpose of each strategy. The axes of the matrix are determined by the aim of the strategy; promotion or application, and whether this strategy is directed at enhancing the development of policies or aimed at more traditional behaviour:

Figure 1: A matrix of ideal types

	Application	Promotion
Development of policy	Policy ready	Promotional
Development of career	Traditional	Contextual
	Aimed at using research for a given purpose	Aimed at changing a given view or position

It should be noted that, whilst presented as 'ideal types', these four strategies are not designed to be mutually exclusive; the constituent parts of the matrix simply represent the totality of the strategies that emerge from engaging with the data/literature, rather than any unique set of behaviours. It is thus entirely feasible for a researcher to attempt to seek to provide 'policy ready' solutions whilst also developing their career via publication in academic journals etc. It is also argued that some actions may stretch across one or more strategies. For example the processes of "user engagement" (Pollard, 2004; Edwards *et al.*, 2007; Sebba, 2007; Moore *et al,* 2011; Rickinson *et al.,* 2011) relates to 'promotional' strategies (by acting as a way of communicating to policy-makers), 'policy ready' strategies (by helping to ensure that a study and its outputs are shaped by the requirements of policy-makers) and 'contextual' strategies (by enhancing both the researcher and the topic in the mind of the researcher).

8. Conclusions

This paper has examined how research units and/or researchers, seeking to demonstrate the impact of their work to policy-makers, might begin to facilitate this process via the use of appropriate knowledge strategies. In doing so, it has augmented extant work relating to knowledge adoption and addressed existing knowledge gaps; primarily in terms of its focus (i.e. by addressing the challenges highlighted by Innvaer *et al.,* 2002 and Campbell *et al.,* 2007) and its methodological approach. Also, however, because current work in this area is often regarded as either conceptual in nature or based on professional opinion (see Moore *et al.,* 2011). This augmentation has thus been achieved by providing a suite of strategies that might be used, along with qualitative verbatim examples of how they have successfully employed. Nonetheless further research in this area would also improve upon what has been presented. A quantitative assessment of the efficacy of each of these strategies, for example, may improve researchers confidence in them; a challenge here is the methodological approach that might be employed and conceptual issues as to what is being measured (e.g. Lavis *et al.,* 2003; Moore *et al.,* 2011).

The ability for research units to successfully engage in any of these strategies will, however, be a function of their ability to act. For instance, whether researchers have the capacity to undertake the level of work involved, or the skills required to be able to quickly transform findings into 'policy ready' outputs. Nevertheless potential solutions to the capacity issue exist and should be explored. These include, for example: the feasibility of employing knowledge brokers, the potential for more extensive use of partnership working or user engagement with policy counterparts and the possibilities for using alternative forms or means of communication.

References

Backer, T. (1991) Knowledge Utilization: The Third Wave, *Knowledge: Creation, Diffusion, Utilization,* 12, 3, pp. 225-40.

Ball, S. (2007) *Education plc. Understanding private sector participation in public sector education*, (London, Routledge).

Ball, S. (2008) *The education debate*, (Bristol, The Policy Press).

Ball, S., and Exley, S. (2010) Making policy with 'good ideas': policy networks and the 'intellectuals' of New Labour, *Journal of Education Policy,* 25, 2, pp. 151-169.

Biesta, G. (2007) Why 'What Works' Won't Work: Evidence-based Practice and the Democratic Deficit in Educational Research, *Educational Theory*, 57, 1, pp. 1-22.

Brown, A., and Dowling, P. (1998) *Doing Research/Reading Research: A mode of interrogation for education,* (London, Falmer Press).

Brown, C. (2009) *Effective research communication and its role in the development of evidence-based policy making. A case study of the Training and Development Agency for Schools*, (MRes Dissertation, University of London, Institute of Education).

Brown C. (2011) *What factors affect the adoption of research within educational policy making? How might a better understanding of these factors improve research adoption and aid the development of policy?* (DPhil Dissertation, University of Sussex).

Campbell, S., Benita, S., Coates, E., Davies, P., and Penn, G. (2007) *Analysis for policy: evidence-based policy in practice*, (London, HM Treasury).

Cooper, A., and Levin, B. (2010) Some Canadian contributions to understanding knowledge mobilization, *Evidence and Policy: A Journal of Research, Debate and Practice*, 6, 3, pp. 351-369.

Cooper, A., Levin, B. and Campbell, C. (2009) The growing (but still limited) importance of evidence in education policy and practice, *Journal of Educational Change*, 10, 2-3, pp. 159-171.

Council for Science and Technology (2008) *How academia and Government can work together*, (London, DIUS).

Court, J. and Young, T. (2003) *Bridging Research and Policy: Insights from 50 Case Studies*, (London, ODI).

Davies, H., Nutley, S., and Smith, P. (2000) *What Works? Evidence-based policy and practice in public services*, (Bristol, The Policy Press).

Davies, P. (2000) Contributions from Qualitative Research, in Davies, H., Nutley, S., and Smith, P. (Eds.) *What Works? Evidence-based policy and practice in public services*, (Bristol, The Policy Press).

Davies, P. (2004) Is evidence-based government possible?, Jerry Lee lecture to Campbell Collaboration Colloquium, Washington DC 19 Feb 2004, available at: http: //www.policyhub.gov.uk/downloads/JerryLeeLecture1202041 .pdf#page=1, accessed 14 November 2010.

Davies, P. (2006) Scoping the Challenge: A Systems Approach, National Forum on Knowledge Transfer and Exchange Toronto Canada, 23-24 October 2006, available at: http://www.chsrf.ca/other_documents/event_reports/pdf/ philip_davies.ppt.pdf, accessed 14 November 2010.

Edwards, A., Sebba, J. and Rickinson, M. (2007) Working with users: some implications for educational research, *British Educational Research Journal*, 33, 5, pp. 647-661.

Fereday, J., and Muir-Cochrane, E. (2006) Demonstrating Rigor Using Thematic Analysis: A Hybrid Approach of Inductive and Deductive Coding and Theme Development, *International Journal of Qualitative Methods*, 5, 1, pp. 1-11.

Gibbons, M. (1999) Science's new social contract with society, *Nature*, 404, pp. C81-C84.

Gibson, W. (2008) Unit 2 Interviews, in Qualitative Data Analysis Lecture Pack and Reading Pack, (London, University of London).

Gough, D. (2004) Systematic research synthesis, in: Thomas G. and Pring, R. (Eds.) *Evidence-based Practice in Education*, (Buckingham, Open University Press).

Gough, D., Oliver, S., and Thomas, J. (Eds.) (2012) *An introduction to systematic reviews*, (London, Sage).

Haas, E. (2007) False Equivalency: Think Tank References on Education in the News Media, *Peabody Journal of Education*, 82, 1, pp. 63 -102.

Hammersley, M. (2001) 'On 'Systematic' Reviews of Research Literatures: A 'Narrative' Response to Evans and Benefield', *British Educational Research Journal*, 27, 5, pp. 543-554.

Hillage, L., Pearson, R., Anderson, A. and Tamkin, P. (1998) *Excellence in Research on Schools*, (London: DfEE).

Innvaer, S., Vist, G., Trommald, M., and Oxman, A. (2002) Health policy-makers perceptions of their use of evidence: a systematic review*, Journal of Health Services & Research Policy*, 7, 4, pp. 239-44

Kirst, M. (2000) Bridging Education Research and Education Policymaking, *Oxford Review of Education*, 26, 3-4, pp. 379-391.

Lagemann, E. (2008) Education Research as a Distributed Activity Across Universities. *Educational Researcher*, 37, 7, pp. 424-428.

Lavis, J., Robertson, D., Woodside, J., McLeod, C., and Abelson, J., (2003) How Can Research Organizations More Effectively Transfer Research Knowledge to Decision Makers, *The Milbank Quarterly*, 81, 2, pp. 221-248.

Lavis, J. (2006) Research, Public Policymaking, and Knowledge-Translation Processes: Canadian Efforts to Build Bridges, *The Journal of Continuing Education in the Health Profession*, 26, pp. 37-45.

Levin, B. (2003) Improving Research-Policy Relationships: Lessons from the Case of Literacy, paper prepared for the OISE/UT International Literacy Conference: Literacy Policies for the Schools We Need, Toronto.

Levin, B. (2004a) Making Research Matter More, *Education Policy Analysis Archives*, 12, 56, pp. 1-20.

Levin, B. (2008) Thinking about Knowledge Mobilization, paper prepared for an invitational symposium sponsored by the Canadian Council on Learning and the Social Sciences and Humanities Research Council of Canada, 15-18 May, 2008.

Lincoln, Y., and Guba, E. (1985) *Naturalistic Inquiry*, (Newbury Park, CA, Sage Publications).

Lindblom, C. and Cohen, D (1979) *Usable Knowledge: Social Science and Social Problem Solving*, (New Haven CT, Yale University

Press).
MacLure, M (2005). 'Clarity bordering on stupidity': where's the quality in systematic review?, *Journal of Educational Policy,* 20, 4, pp. 393-416.
Majumder, R., Walls, R., Fullmer, S., and Dowler, D. (1994) Information flow in vocational rehabilitation, *Rehabilitation Counseling Bulletin*, June, pp. 332-346.
Mason, J. (2002) *Qualitative Researching*, (London, Sage).
Mitton, C., Adair, C., McKenzie, E., Patten, S., and Waye-Perry, B. (2007) Knowledge transfer and Exchange: Review and Synthesis of the Literature, *The Milbank Quarterly*, 85, 4, pp. 729-768.
Moore, G., Redman, S., Haines, M., and Todd, A. (2011) What works to increse the use of research in population health policy and programmes: a review, *Evidence and Policy: A Journal of Research, Debate and Practice*, 7, 3, pp. 277-305.
Mortimore, P. (2000) Does educational research matter?, *British Educational Research Journal*, 26, 1, pp. 5-24.
Moore, R. (1996) Back to the future: the problems of change and the possibilities of advance in the sociology of education, *British Journal of Sociology of Education*, 17 pp. 145-162.
Nutley, S.M., Walter, I. and Davies, H.T.O. (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).
Oxman, A., Lavis, J., Lewin, S., and Fretheim, A. (2009) SUPPORT Tools for evidence-informed health Policymaking (STP) 1: What is evidence-informed policymaking?, available at: http://www.health-policy-systems.com/content/7/S1/S1, accessed on 14 November 2010.
Ozga, J. (2000) *Policy research in educational settings*, (Buckingham, Open University Press).
Paisley, W. (1993). Knowledge utilization: The role of new communications technologies, *Journal of the American Society for Information Science*, May, pp. 222-234.
Perry, A., Amadeo, C., Fletcher, M., Walker, E., (2010) *Instinct or Reason: How education policy is made and how we might make it better* (Reading, CfBT).
Pestieau, C. (2003). *Evaluating Policy Research*, (Ottawa ON, Canadian Policy Research Networks).
Pollard A. (2004) The SERA Lecture 2003: what is and what might be? TLRP strategies and the development of educational research, *Scottish Educational Review*, 36, 1, pp. 11-21.
Pollard, A. and Oancea, A. (2010) *Unlocking learning? Towards evidence-informed police and practice in education*, (London, SFRE).
Rickinson, M., Sebba, J. and Edwards, A. (2011) *Improving research through user engagement*, (London: Routledge).
Sá, C., Li, S., and Faubert, B. (2010) Faculties of Education and Institutional Strategies for Knowledge Mobilization: An Exploratory Study, *Journal of Higher Education*, DOI 10.1007/s10734-010-9344-4.
Sandelowski, M., Voils, C., Leeman, J., Crandell, J. (2011) Mapping the Mixed Methods–Mixed Research Synthesis Terrain, Journal of Mixed Methods Research, available at: https://portal.ioe.ac.uk/http/mmr.sagepub.com /content/early /recent, accessed on 7 January 2012.
Sebba, J. (2000) The Department for Education and Employment (schools research), in: Davies, H., Nutley, S., and Smith, P. (Eds) *What Works? Evidence-based policy and practice in public services*, (Bristol, The Policy Press).
Sebba, J. (2007) Enhancing impact on policy making through increasing user engagement in research, in: L. Saunders (Ed.) *Educational research and policy making,* (London, Routledge).
Sharland, E., and Taylor, I. (2006) Social care research: a suitable case for systematic review, *Evidence and Policy*, 2, 4, pp. 503-23.
Sin, C. (2008) The role of intermediaries in getting evidence into policy and practice: some useful lessons from examining consultancy-client relationships, *Evidence and Policy: A Journal of Research, Debate and Practice*, 4, 1, pp. 85-103.
Siraj-Blatchford, I. (2010) Learning in the home and at school: how working class children 'succeed against the odds', *British Educational Research Journal*, 36, 3, pp. 463-482.
Strathern, M (2000) The Tyranny of Transparency, *British Educational Research Journal*, 26, 3, pp. 309-321.
Stronach, I. and MacLure, M. (1997) *Educational Research Undone: The postmodern Embrace*, (Buckingham, Open University Press).
Swift, A. (2001) Politics vs. Philosophy, *Prospect*, August/September, pp. 40-44.
Sylva, K., Taggart, B., Melhuish, E., Sammons, P. and Siraj-Blatchford, I. (2007) Changing models of research to inform educational policy, *Research papers in Education*, 22, 2, pp. 155-168.
Taggart, B., Siraj-Blatchford, I., Sylva, K., Melhuish, E. and Sammons, P. (2008) Influencing Policy and Practice through Research on Early Childhood Education, *International Journal of Early Childhood Education*, 14, 2, pp. 7-21.
Taylor, M. (2005) Bridging research and policy: A UK perspective, *Journal of International Development*, 17, 6, pp. 747-757.
Trowler, P. (2003) *Education Policy*, (London, Routledge).
Troyna, B. (1994) Critical social research and education policy, *British Journal of Education Studies*, 42, 1, pp. 70-84.
Weiss, C. (1979) The many meanings of research utilisation, *Public Administration Review*, 29, pp. 426-431.
Weiss, C. (1980) Knowledge creep and decision accretion, *Knowledge: Creation, Diffusion, Utilisation*, 1, 3 pp. 381-404.
Weiss, C. (1982) Research in the context of diffuse decision making, *The Journal of Higher Education*, 53, 6, pp. 619-639.
Winch, C. (2001) Accountability and Relevance in Educational Research, *Journal of Philosophy of Education*, 35, 2, pp. 443-459.
Wolter, S., Keiner, E., Palomba, D. and Lindblad, S. (2002) OECD examiners' Report on Educational Research and Development in England, *European Educational Review*, 3, 2, pp. 510-526.