Research report

Models of research impact:
a cross-sector review of literature and practice
Building effective research: 4

learning &skills research centre

This major national study sets out practical steps to enhance the impact of research on practice and policy. It analyses evidence from both research literature and actual practice across the education, social care, criminal justice and healthcare sectors, and offers recommendations to the learning and skills community.

Research report

Building effective research: 4
Series editor:
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a cross-sector review of literature and practice

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Research report

Building effective research
Series editor:
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The series is published by the Learning and Skills Research Centre as part of its strategy to increase the effectiveness of research on, and for, the sector. The strategy includes initiatives to develop methods, secure impact and build capacity. Publications in the series draw on these three themes, and aim to inform practitioners and policy-makers who make use of research, as well as those who undertake it.

Planned titles

1
From idea to impact:
a guide to the research process
Andrew Morris

2
Quantitative research:
a scoping study for the Learning and Skills Research Centre
Michael Rendall

3
Collaborative research:
the experience of the regional Learning and Skills Research Networks
Lin Norman (ed)

4
Models of research impact:
a cross-sector review of literature and practice
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Editor's foreword

This report is a fundamental resource for all those concerned with developing the evidence base for public service professionals. It was commissioned because there is a problem about connecting the outcomes of research with the inputs that professionals use in making judgements in their day-to-day practice. Evidence suggests that this problem is common to many parts of the public services.

A new research centre for the learning and skills sector, explicitly committed to informing policy and improving practice, provided the opportunity to address this issue. Advice was needed to inform the design of projects within the centre and to guide the development of the centre itself. Other organisations, either providing education and training or developing policy for it, also stood to benefit from the same advice. The project was therefore designed to inform both the client – the Learning and Skills Research Centre (LSRC) – and the sector as a whole. It has subsequently become apparent from widespread interest in this project that it is of interest in other areas such as social care and healthcare.

The research was conducted by a consortium of three universities working in close collaboration with the LSRC. Its purpose was to offer advice on ways of increasing the impact of research on practice and on policy. Its outcomes were to include models of the impact process, an analysis of particular strategies, and guidance on how one organisation (the LSRC) could develop its practice. The design of the project, itself based on current thinking about research impact, involved a rigorous scrutiny of existing literature, a study of practical activity, and interpretation through the eyes of practitioners and policy-makers. To open up educational thinking to wider influences, the study addressed impact strategies in social care, healthcare and crime reduction as well as in education and training.

This report has been written with busy people in mind, who are working in classrooms and offices locally, regionally and nationally. It is concise and practical. It demonstrates how theoretical understanding can be developed and put to practical use. For research planners, decision-makers in policy and provider organisations, teachers, developers and people concerned with improving quality, it helps to clarify thought and guide action. Information is provided at several levels – narrative, setting out the context and the process; tables summarising key findings; and appendices providing further detail. Additional information about the literature review is also available in a longer report on the LSRC website at www.LSRC.ac.uk

Reading this report is inspirational and empowering. It helps us to understand and feel hopeful about an ill-defined, but critically important topic; and it equips us to improve the way we run our organisations, plan our research and communicate effectively.

Andrew Morris
Learning and Skills Development Agency

Summary

This is the first project in the LSRC's programme on research effectiveness. Its objectives were:

- to review the literature on research impact
- to assess practices in comparable organisations
- to characterise models, strategies and actions that would be useful in the learning and skills sector
- to develop guidance for the designers and managers of LSRC research.

It was undertaken through a combination of literature review, case studies and workshops.

The learning and skills sector is very diverse, with many kinds of learner, many kinds of provider. Standards vary greatly. A wide range of policy, regulatory, developmental and advisory bodies exerts influence upon its practice. There is, though, now a government commitment to improvements in provision, staff development, pedagogic practice and quality. At the same time, there is a growing investment in research on and for the sector. The Learning and Skills Development Agency (LSDA) and the LSRC have an opportunity to build on their current activities to maximise the impact of research on these areas.

The literature review identified 5800 references and analysed 341 in detail. The case studies, involving documentary analysis and interviews, assessed practice in five organisations. Together they revealed a number of practices for maximising research impact, what seemed to account for their effectiveness, and the barriers to and enablers of their application. The need to combine practices and to take a long-term view were important lessons that emerged. Organisational and professional cultures are also strongly influential factors.

From the analysis of the identified research impact practices – many of which are already in use by LSDA – a four-stranded strategic approach for maximising research impact in the learning and skills sector has been developed. The four strands relate to the interaction of research production and research use, research production, research use, and their organisational contexts. Its application is shown through an analysis of the actors relevant to LSRC's six research programmes, and through a worked example for choosing impact-maximising practices for one project within a programme. Finally, four generic practices are identified which could be developed for application in a range of programmes and projects.

The report draws six conclusions:

1. LSRC's research strategy requires an active approach to maximising research impact
2. its research must intentionally seek to influence the key actors in the sector
3. there is a wide range of practices which can be used, only some of which are in LSDA's current repertoire
4. combining practices and expecting long-term impacts are often necessary
5. a strategic approach can combine practices which address researcher–practitioner interactions, research production, research use, and the organisational contexts for these
6. each project will require a tailored version of this approach.

Six recommendations are made:

1. an assessment of potential impact should be part of research project planning
2. each project's budget should include resources for impact activity
3. LSDA and LSRC should review their present practices and develop others
4. some such practices can be generic, usable in a number of projects
5. the actual impact of projects should be reviewed regularly after their completion
6. guidance and training should be developed for both researchers and practitioners in the impact practices to be used.

Section 1 Introduction

The LSRC is committed to making its research useful to and usable by the learning and skills sector. It has therefore planned a major research programme on research impact. This is the first project and is intended to provide a foundation for subsequent work in the programme. Its specific objectives were:

- to review the literature on research impact
- to assess practices in comparable organisations
- to characterise models, strategies and actions that would be useful in the learning and skills sector
- to develop guidance for the designers and managers of LSRC research.

The first two objectives (literature review, practice assessments) were to be pursued across a number of sectors. The latter two objectives (models and strategies, guidance) were to be focused on meeting the needs of the learning and skills sector at national, regional and local levels.

The research was undertaken by a consortium which drew on the complementary experience and expertise of three organisations:

- the Economic and Social Research Council (ESRC) UK Centre for Evidence Based Policy and Practice, Queen Mary, University of London
- the Policy Research Institute, Leeds Metropolitan University
- the Research Unit for Research Utilisation, University of St Andrews.

The project was undertaken through the following sequence of events:

- an initial preparatory stage in which the scope and methods of the project were agreed with the client
- a set of interacting analyses in which the literature review and case studies of practice in organisations were undertaken and the findings synthesised
- three workshops in which these findings and emerging conclusions were tested against the experience of people working in the sector
- the preparation of conclusions and recommendations in this report.

This work is reported in four sections. Section 2 provides an account of the organisations in the learning and skills sector and the characteristics of that sector which are important for the interaction between research, practice and policy. Section 3 summarises the results of the literature review and the case studies – reported in more detail in Appendices 1 and 2. Section 4 presents a model of research impact and its translation into a recommended strategy and set of actions for the LSRC. Section 5 contains the project's conclusions and recommendations.

Members of the research team on the project were:

from Queen Mary, University of London:
Annette Boaz
William Solesbury

from Leeds Metropolitan University:
Alison Darlow
Lynne Dowson
Stella Ladi
Janie Percy-Smith
Peter Wells

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Huw Davies
Sandra Nutley
Isabel Walter

Section 2

Research, policy and practice in the learning and skills sector

This section provides an account of the organisations in the learning and skills sector and the characteristics of that sector which are important for the interaction between research, policy and practice. It also notes the LSDA's and LSRC's current activities to increase research impact.

The learning and skills sector

The learning and skills sector includes many organisations and individuals concerned with the delivery and support of post-16 training and education outside the universities. In England and Wales these include:

- the learners, teachers or trainers, and managers in sixth-form and FE colleges, school sixth forms, adult and community-based learning organisations, training centres and workplaces
- parents and employers
- representative bodies like the Association of Colleges (AoC), the Association of Learning Providers (ALP) and the trade union, the National Association of Teachers in Further and Higher Education (NATFHE)
- awarding bodies and their regulator, the Qualifications and Curriculum Authority (QCA)
- inspectors from the Adult Learning Inspectorate (ALI) and OFSTED who are responsible for external quality assurance
- organisations that set policy or allocate resources for the sector, notably the Department for Education and Skills (DfES) which has established a new Standards Unit for the sector; the Learning and Skills Council (LSC) in England and Education and Learning Wales (ELWa); the recently established Sector Skills Development Agency (SSDA); and the Regional Development Agencies (RDAs)
- the local Learning and Skills Councils (LSCs) which develop local strategies for post-16 education and training and commission local provision
- organisations providing support and services to the sector like the LSDA, the Basic Skills Agency (BSA), the National Institute for Adult and Continuing Education (NIACE) and the Further Education National Training Organisation (FENTO)
- research funders like the new LSRC, the ESRC, DfES and LSC (all represented in the National Education Research Forum [NERF]) and the researchers and consultants who undertake research and consultancy in the sector.

Some of these organisations are engaged in the practice of teaching and training. Others have a developmental role, exploring and promoting new ways of working. Some are research organisations.

Across the learning and skills sector there are many distinctive strengths: the commitment to widen participation and meet the needs of disadvantaged people; the important role providers play in local communities and the creativity of front line staff in delivering learning. But there has also been under-funding and excessive bureaucracy. There remain problems of widely diverging standards of learner achievement, which the inspectorates have highlighted. Whilst there is some excellent quality provision, this co-exists with too much poor provision. And across the system as a whole, insufficient attention has been given to improving teaching, training and learning.

DfES 2002

This document sets out a strategy for reform, supported by the Government's largest ever investment in further education and training. There are four elements:

- *Meeting needs, improving choice by improving the responsiveness and quality of provision in each area to meet learner, employer and community needs;*
- *Putting teaching, training and learning at the heart of what we do by establishing a new Standards Unit to identify and disseminate best practice, which will guide learning and training programmes;*
- *Developing the leaders, teachers, lecturers, trainers and support staff of the future including setting new targets for full and part-time college teachers to be qualified, and developing strong leadership and management through a new leadership college; and*
- *Developing a framework for quality and success by establishing a new planning, funding and accountability system, based on greater partnership and trust, including three year funding agreements.*

DfES 2002

The sector has a number of characteristics that are contextually important in understanding – or changing – the relationship between practice, policy and research within it. Many of these were noted in the recent report *Success for all: reforming further education and training* (DfES 2002). Key characteristics are as follows:

- post-16 learners vary greatly in their abilities, their levels of achievement, their ages and their aspirations. The range is well illustrated by the qualifications on offer within the sector: GCSEs, A-levels and AS levels, NVQs and GNVQs, diplomas and degrees and other kinds of certification
- the providers in the sector are diverse, embracing colleges of further education, school sixth forms and sixth form colleges, adult learning institutes, community-based organisations, private training centres and workplace training providers; all these also vary individually in the size of their enrolments, staff and budgets
- in the past, the staffing of post-16 training and education was relatively unprofessionalised – certainly in comparison with school and university teaching – but this is changing fast with more graduate entrants to the profession and a growth in teaching qualifications. But there are still many part-time and temporary appointments, and continuing professional development (CPD) in the sector is patchy
- national policy has only relatively recently addressed itself to the sector in the round – marked by the creation of the LSC, the ALI and the new DfES Standards Unit, and the strategy for reform set out in *Success for all* (DfES 2002). The sector is now subject to far more externally driven change than hitherto, though more so in the colleges and schools than in work-based training
- the sector has traditionally been under-researched in comparison with school and higher education – both in theoretical and empirical terms. Work has been done in different traditions by different researchers or funders without much cross-fertilisation – including pedagogic research in universities, curricular research by practitioners, surveys by providers, evaluations for policy and programme development. But a new injection of research funding in the sector is under way – notably through the research budgets of the DfES and the LSC, the establishment of the LSRC, and the ESRC-managed Teaching and Learning Research Programme (TLRP), which includes strands of research focused on both post-compulsory education and workplace learning.

The implications of these characteristics for the relationship of research, policy and practice were discussed in the workshops (see Appendix 3). Section 4 addresses their implications for the use of research in the sector.

The LSDA and the LSRC

The LSDA describes itself in its promotional leaflet *Connecting policy to practice* (LSDA 2002) as a 'national, strategic agency for the development of policy and practice in post-16 education and training with a remit from government to work across the whole learning and skills sector'. It was established in 2000 as successor to the government-funded Further Education Development Agency (FEDA). Its activities cover:

- support programmes for teachers, trainers, managers and other practitioners
- research
- organisational development
- professional development
- conferences, workshops and training events
- networks
- publishing
- consultancy and expert advice
- policy analysis.

Its annual income is currently about £24m: this mostly comes from government and comprises part core funding, part project funding. Currently, 80% of its budget is spent in relation to further education and adult and community-based learning: the other 20% is shared between sixth forms and workplace training.

LSDA's programmes have a developmental and/or demonstrative purpose, designed to foster skills, resources or good practice within the sector. Typically, a programme will have been commissioned by the DfES or LSC; may be undertaken in partnership with other organisations in the sector such as AoC or NIACE; will consist of a number of projects – together with support and networking – in which local education and training providers participate; and will publish guidance and maybe offer training on good practice. Programmes are essentially development work, but may be building on previous research and may contain an element of new research within them. They may run for several years and be funded in the range of £500,000 to £4m each year. Within LSDA, there are programme managers with responsibility for one or more programmes, heading programme teams, which may combine LSDA staff and external consultants.

LSDA's programmes in 2002 were concerned with:

- key skills
- learning technologies
- vocational learning
- senior management
- principals
- teacher development
- adult and community learning
- curriculum 2000
- raising quality and achievement
- Centres of Vocational Excellence (CoVEs)
- young people (14–16)
- management development
- basic skills and ESOL.

Two recent examples of research-informed initiatives:

- research on NVQ Level 3 achievement led to a new DfES-funded, LSDA-delivered programme to create Centres of Vocational Excellence in selected FE colleges
- research on falling grades in work-based learning resulted in an action plan for the DfES, the inspectorates, the LSC and the LSDA.

Research in LSDA is organisationally separate from its programmes. Research is seen, according to its *Making it work* leaflet (LSDA 2000), as a 'key role for the Agency' and 'the basis of the Agency's activities'. Currently (2002/03), there are 43 projects under way on themes which include:

- raising aspirations in the context of high employment
- the impact of the Disability Discrimination Act Part 4 (Special Educational Needs and Disability Act) of 2001 on learners with learning difficulties and disabilities
- supporting informal learning in small and medium-sized enterprises (SMEs)
- good practice in employer engagement in learning
- the use of computer games for learning
- successful transition from further education to higher education
- the impact of FE funding methodology on practice
- developing a course costing model
- the organisation of professional development in the learning and skills sector
- developing regional research capacity.

Research managers with particular specialisms each manage a number of projects, carried out by internal researchers and/or external contractors, from inception to completion. This is mostly applied research, addressing issues of immediate policy or practice concern within the learning and skills sector.

To complement this research, the LSRC was launched in October 2001 as a new, independent centre for research that will inform future policy development and practice in post-16 learning. Like the LSDA's continuing research programme, its focus is on policy and practice in the sector, but it differs in its orientation towards future development. It has been created as a partnership. The LSC contributes 90% and the DfES 10% of its £1m annual budget. The LSDA is the managing agent for the centre, which is co-staffed and co-located with the LSDA. It does, though, have its own advisory forum of researchers and research users.

The LSRC's *Research strategy 2002–05* (LSRC 2002) states its vision, mission and aims.

Vision

To be a powerful and authoritative source of knowledge and ideas, informing and influencing the future development of a successful and sustainable system of post-16 learning.

Mission

To create a strong body of evidence from rigorous research, focused on creative, critical and innovative thinking, models and solutions for the long-term development of post-16 learning, and to ensure that the centre's research has a strong and positive impact on the development of policy and practice.

Aims

The centre will:

- commission major studies that tackle fundamental, long-term problems
- enhance the impact [that] research has on policy and practice
- increase the overall research effort
- build on existing knowledge from research and practice
- develop capacity in post-16 research
- use a wide range of research methods
- engage in 'blue skies' studies, forward thinking and trend analysis.

The LSRC's research is planned within five broad programmes:

- participation in post-compulsory learning
- vocational learning, skills and work
- developing learning and teaching
- the organisation of learning
- developing the workforce for post-compulsory learning.

There is an additional cross-cutting theme of 'building effective research'. The first invitations to tender within these programmes were issued in September 2002. Thus, in comparison with the LSDA itself, the role of the LSRC is to foster strategic research addressing major issues of policy or practice through more ambitious, longer-term projects and programmes; in the process it will strengthen the capacity of the sector for research and research-informed action.

Current LSDA and LSRC dissemination and impact activities

The LSDA (and as yet to a lesser extent, the LSRC) currently work in a number of ways to relate their research to policy and practice within the sector. These include:

- involving research users in the research process through:
  - consultations and surveys on research priorities, particularly with the LSC and DfES
  - expert seminars to define research agendas
  - advisory groups for projects
  - seminars to interpret research findings for policy or practice
- links to development work through:
  - projects which build on previous research
  - research within development projects
  - new research arising from development projects
- links to professional development and training
- publications including:
  - research reports – 26 reports have been published in the last 2 years
  - its websites – www.LSDA.org.uk/research and www.LSRC.ac.uk
  - press releases
  - concise briefings on research findings for practitioners and policy-makers
  - videos, CD-ROMs and web materials for diverse audiences
  - books and booklets for general readers
  - newsletters – the *LSDA Briefing*, newsletters from many of the development projects, and the *LSRC News*
  - the *Learning and Skills Research Journal*, published three times a year, covering work in progress, research reports, book reviews, news
- the Learning and Skills Research Network (LSRN), which has in membership some academics but mostly practitioners from local LSCs, training providers, schools and other individuals or organisations, coming together in six regional groups in England. The LSRN organises:
  - a newsletter to members
  - a major annual conference
  - regional conferences and occasional seminars
  - training in research skills
- events including:
  - the annual LSDA conference in June
  - an annual research conference in December
  - an annual LSRC colloquium
  - special conferences and seminars for specific programmes or projects, as well as the events arranged under the LSRN's aegis.

Summary

The learning and skills sector is very diverse, with many kinds of learner, many kinds of provider. Standards vary greatly. A wide range of policy, regulatory, developmental and advisory bodies exerts influence upon its practice. There is, though, now a government commitment to improvements in provision, staff development, pedagogic practice and quality. At the same time, there is a growing investment in research on and for the sector. The LSDA and the LSRC have an opportunity to build on their current activities to maximise the impact of research on these areas.

Section 3 The literature review and the case studies

In this section, the main findings of the literature review and of the case studies of organisations are reported. From these, a number of practices for achieving research impact are identified with examples. Some broad conclusions are then drawn on what characterises effective practices, and what are the barriers to and the enablers of research impact.

The literature review and the case studies were designed to address similar questions about research impact, namely:

- what models conceptualise research use? How have they been applied in practice?
- what criteria are used to judge effective practices for maximising research impact? Are there realistic measures for them?
- what are the characteristics of effective practices?
- what dimensions of context are important in understanding successful research impact? What are the barriers to and enablers of effective use of research?

These questions were elaborated in the protocols that guided the literature review and the case studies. Not all these questions were answerable in each of the two cases, but the agreed protocols assured some comparability in the findings of the two exercises.

Appendix 1 provides a full account of the scope of all this research, including references for the papers analysed in detail.

The literature review

The review of published research focused on the education, healthcare, social care and criminal justice fields, as these were areas where it was assumed that the issue of research use had been examined, and that the context of the research–practice relationship had much in common with the learning and skills sector.

In the review, 5800 references were initially identified, of which 750 were examined in full and 341 selected for detailed analysis (see Figure 1). Of these, 155 were conceptual papers, two were methodological, 59 provided background and 125 were empirical papers. These empirical papers were either reviews of primary research, single evaluations or research use studies, all providing data on the effectiveness of different practices to enhance research impact. Sixty per cent of these papers related to healthcare, with the remaining 40% fairly evenly distributed across the other sectors in the review, as illustrated in Figure 2.

Figure 1
Selection of literature for review

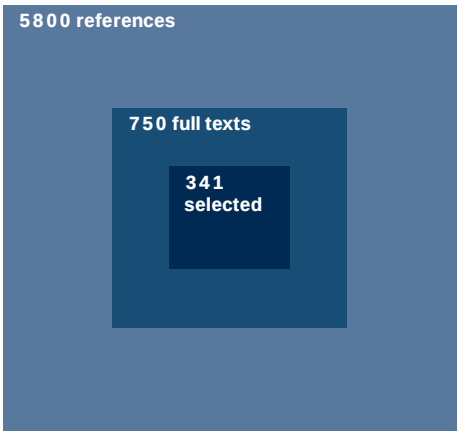
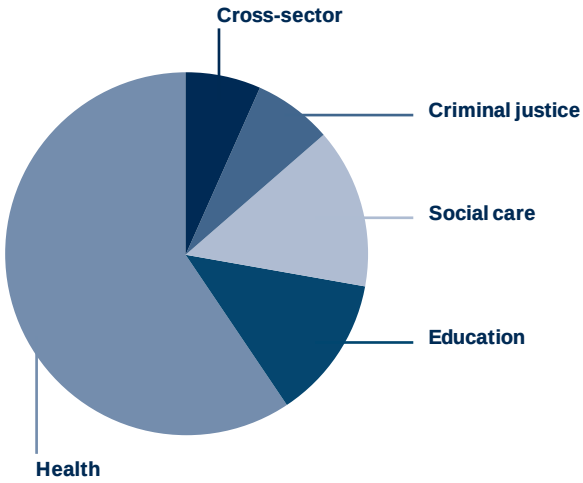


Figure 2
Empirical papers by sector



These empirical papers considered a wide range of forms of research impact, including:

- awareness of and access to research
- the extent to which research is considered, read or cited
- acquisition of new knowledge and understanding
- changed attitudes and beliefs
- behavioural change.

What emerged was a confirmation of the distinction commonly made between the 'conceptual' (sometimes called 'enlightenment') value of research, which brings changes of knowledge, understanding and belief; and its 'instrumental' (or 'engineering') value in directly changing behaviour in policy or practice. Even so, most of the literature – particularly from the dominant healthcare field – considers impacts in terms of direct practice change; there is less coverage of ways of achieving effective conceptual impact.

The case studies

The organisations selected for case studies needed to have one or more of the following characteristics:

- research users as well as research producers and/or research funders
- both a national and a regional or local remit
- established reputations for effectively relating research to policy or practice
- a span of diverse sectors and disciplines.

In short, they were to be organisations from which much of relevance to the learning and skills sector might be learned. An initial long list of possible case study organisations was compiled. Then, having regard also to the necessary agreement on access, five organisations were selected:

- Barnardo's
- the Joseph Rowntree Foundation (JRF)
- the Local and Regional Government Research Unit (LRGRU), Office of the Deputy Prime Minister (ODPM)
- the Local Government Association (LGA)
- the MORI Social Research Institute (MORI).

Barnardo's
National children's charity with local service delivery, research producer and user, strong influence on social care practice.

JRF
National research charity, major social research funder, strong influence on policy and practice.

LRGRU
Government department, research funder and user, influencing national and local policy.

LGA
Research producer and funder, influencing national and local policy and practice.

MORI
leading private sector research producer for diverse clients, with strong media coverage and links with policy networks.

Appendix 2 provides a full report on the five case studies

The value of the case studies lay in contextualising and individualising (even personalising) the research impact practices which they use. To achieve that, each case study was undertaken by analysis of documentation provided by the organisation or obtained from their website, and interviews with four to six key personnel. The issues explored were: the disposition of the main actors and activities of the organisation; the role of research in the organisation's mission; the interactions between research, policy and/or practice; and how those interactions are managed. Specific examples of successful practices were also sought.

A similar exercise was undertaken for the LSDA to provide a baseline of current practice to which the evidence from the other organisations could relate, and from which guidance appropriate to the sector could be developed.

All five organisations saw research as part of their organisational mission – either as a primary purpose (as with JRF, LRGRU, MORI) or as a secondary purpose (Barnardo's, LGA), serving the needs of their main business. Research had recently grown in importance for all of them: either in response to internal drivers, like improving performance or resource allocation; or in response to external drivers, notably governmental emphasis on more evidence-informed policy and practice. MORI, alone of the five, had a profit-maximising objective.

The functional relationship of research and policy or practice development varied between the organisations in a number of ways. In Barnardo's, research and policy or practice development are highly integrated, with researchers decentralised to regional offices. MORI structures its research around 16 business areas. JRF has, in recent years, established a separate unit for development, but often brings research and development together in specific projects. The LRGRU is located organisationally within ODPM's local and regional governance policy group.

Another variation lay in the management of research. Some organisations – notably JRF and LRGRU – favour large-scale research programmes over many smaller, individual projects, believing that this offers the potential for greater impact on topics of policy or practice priority. Some also involve stakeholders from related practitioner communities in the selection of research priorities, the management of research and/or interpreting research results for policy and practice.

These sources reveal some familiar practices – research summaries, workshops, media coverage; and some novel practices – targeting opinion leaders, demonstration projects, research–practice partnerships.

Practices for research impact

The literature review and the case studies provided two very different kinds of data. To draw their findings together, the focus was placed upon the practices for enhancing research impact that they had revealed. From each source, an independent analysis was done to:

- identify the range of practices revealed in the source
- characterise each practice in terms of its underpinning model of research use
- note what is known about their effectiveness and the contextual barriers to and enablers of their use.

This analysis was effected through completion of summary forms for each practice.

The literature review yielded 26 distinct practices, the case studies 27 practices. Unsurprisingly, some of the practices from the two sources were analogous. There were 15 of these, plus another 12 practices identified in only one of the sources – making 27 discrete practices in all. Some of these are familiar practices; others are novel. The latter are drawn more from the healthcare field than elsewhere, simply because of the dominance of that literature. All 27 practices are presented in Table 1 below with a brief description, some examples, and notes on what is known about their effectiveness. They are grouped under six headings:

- tailored presentation of research findings
- tailoring research to users' needs
- increasing communication between researchers and users
- support for developing research-informed practice
- rewarding and reinforcing research-informed practice
- staff development, education and training.

Table 1
Practices for enhancing research impact

	Practice	Examples	Effectiveness?
	Tailored presentation of research findings		
1	Practice guidelines – informed by research	Growing medical practice, sometimes developed through consensus processes; LGA produces good practice examples for use by local authorities	Single guideline has low impact in changing practice; needs reinforcement through reminders, incentives, peer endorsement
2	Use of mass media – through press notices and briefing	Common practice in case studies; JRF is particularly successful in securing coverage	Evidence from systematic reviews in healthcare that media coverage can promote behavioural change in practitioners and consumers
3	Print publications – reports, summaries, newsletters	Practised in MORI, JRF, LRGRU and LGA for external audiences; common practice found in literature review	Can increase awareness, but unlikely by itself to change behaviour
4	Workshop/seminar presentations	MORI is proactive in presentations at others' or own events	Literature suggests oral presentation with opportunity for interaction impacts well on practitioners; source and timing are important
5	Lobbying – including through consultation responses	JRF sends letter and research summary to 10 most influential people in relevant practice field	*Ad hoc* evidence of effectiveness in raising awareness, but repetition becomes counterproductive
6	Tailored material – for target audiences	JRF is responsive to such opportunities, eg policy reviews	Can help to change attitudes; requires empathy and/or cooperation with practitioners to get it right
	Tailoring research to users' needs		
7	Research planning – to improve relevance	Both MORI and LRGRU negotiate research plans with clients	*Ad hoc* evidence of effectiveness by encouraging early engagement by research users
8	Demonstration projects – to carry research into practice	Beacon schools, pilot or pathfinder projects, taskforces, practical projects	*Ad hoc* evidence of effectiveness; believed to add credibility to research and to sharpen its practical application
9	Standards for research – to improve quality	Barnardo's has standards for research linked to organisational quality commitments	*Ad hoc* evidence that it works well as part of a wider framework of change management
10	Research programmes – rather than small projects	JRF and LRGRU have moved to larger research programmes	*Ad hoc* evidence that cumulative evidence increases awareness
	Increasing communication between researchers and users		
11	Networking – personal contacts between researcher and practictioner	Barnardo's, LRGRU, LGA all actively seek such involvement	Long-term effects in fostering research awareness
12	Project partnerships – between researchers and practitioners	Examples from literature of action research, of partnership projects in medicine and teaching, and of joint promotion of research; JRF project advisory groups contain both researchers and practitioners	Some evidence that research is more practice-relevant, with consequent greater practitioner engagement
13	Ongoing partnerships – between research and practice organisations	TTA-funded school–university consortia; JRF-funded social care network	Some evidence of impact on attitudes and behaviour; time and commitment are necessary conditions
14	Co-location of researchers and practitioners	Barnardo's devolution of researchers to regions; LRGRU's location within policy directorate	Anecdotal evidence of promotion of mutual understanding and responsiveness

	Practice	Examples	Effectiveness?
	Support for developing research-informed practice		
15	Information and inquiry services – on research for practitioners	Literature reports examples in education and social care; most case study organisations have research websites	Commonly judged useful in supporting evidence-informed practice; but effectiveness depends on promoter's enthusiasm and credibility within an organisation
16	IT support systems	Barnardo's intranet connects dispersed researchers and practitioners	IT systems are effective in supporting change in healthcare practice
17	Facilitation of research impact actions – through training, funding, support	Examples from US and UK literature of such programmes in medicine, criminal justice and social care	Programmes need good resources and leadership, but changes in conceptual and instrumental impact have been achieved
18	Office systems – other than IT	Healthcare experience of specifying care pathways and using checklists	Office tools and teamwork can improve practice
19	Research champions – recruiting opinion leaders to this role	Role of opinion leaders in Promoting Action in Clinical Effectiveness (PACE) programme	Some evidence of influence of colleagues on research awareness and practice change
20	Organisational initiatives – fostering evidence-informed practice	Healthcare experience of using quality improvement initiatives to increase the flow of evidence within organisations	Some evidence of success in changing attitudes and behaviours; key factors are leadership, clear goals, supportive infrastructure and integration with practice
	Rewarding and reinforcing research-informed practice		
21	Incentives – for researchers' dissemination	Financial or status rewards for GPs for adoption of particular practices	Successful in increasing dissemination
22	Incentives – for practitioners' uptake	Financial rewards for GPs	Mixed results
23	Reminders and prompts – oral, print or electronic	Use of computerised prompts in primary healthcare practice	Effective – reinforcement of messages influences behaviour
24	Audit and feedback – of practice	Use of audit and feedback regimes to change prescribing behaviour of GPs	Mixed results in changing practice; feedback most effective with peer comparison
25	Targeting service users – to provide leverage on practitioners	Providing research evidence on good practice to healthcare patients	Successful in changing clinical practice
	Staff development, education and training		
26	Outreach – researchers visiting practitioners	Found in healthcare field	Only modest effects in changing practice as a single intervention
27	Training and staff development – of both researchers and practitioners	US literature on training for research-based practice in medicine and social care; Barnardo's trains practitioners in research appraisal	Mixed success in achieving practice change; but ongoing support and favourable organisational culture seem crucial

These are undoubtedly not all the possible practices that might be used to enhance research impact. Even so, Table 1 provides a repertoire of exemplary practices that might be adapted to the learning and skills sector. Some are already practised by the LSDA (see Section 2 above), in some ways and to some degree, as follows:

- practice guidelines (practice 1 in Table 1) – this can happen through LSDA programmes
- use of mass media (2) – through press notices and briefing
- print publications (3) – reports, summaries, newsletters
- presentation (4) – at conferences and seminars
- lobbying (5) – through responses to consultations
- research planning (7) – involving users in selecting priorities, designing research
- demonstration projects (8) to carry research into practice – this happens where research informs LSDA programmes
- networking (11) – personal contacts between research and practice, exemplified in the Learning and Skills Research Networks (LSRNs) at regional level
- project partnerships (12) between researchers and practitioners
- information and inquiry services on research for practitioners (15) – the LSDA and LSRC websites provide information, but do not handle inquiries
- training and staff development (27) – research informs LSDA training and development programmes, though not specifically on developing skills for research use.

Effectiveness

The case studies and the literature review agree that there are many ways in which research has an impact. The most tangible cases are changes in policy, organisation, resourcing or delivery. But the sources also reveal more intangible changes in understanding, attitudes and behaviour – within both individuals and organisations. Any of these kinds of change can be important research impacts.

The sources do not, however, always offer measures of the effectiveness of the identified practices in shaping such changes. In the literature, diverse methods for assessing different kinds of impact are reported. The healthcare literature usually examined objective measures of impact on the process or outcome of care; in other sectors, more eclectic measures were used. The case studies revealed no examples of rigorous evaluation of the organisations' practices to maximise research impact. For the most part – outside the healthcare sector – both sources base their conclusions upon self-reporting by and observation of participants in the research–practice relationship.

Example: the Joseph Rowntree Foundation produces a range of publications for different audiences, including their Findings research briefs, which have been widely copied by others.

Example: the Teacher Training Agency's (TTA) Research Consortia Initiative, involving schools, universities and LEAs, supports teachers undertaking their own research and testing out research findings in practice contexts.

Example: the US Community [Delinquency] Prevention Grants Programme provides guidance, training and technical assistance to communities planning and undertaking research-based delinquency prevention strategies.

Example: the Promoting Action in Clinical Effectiveness (PACE) programme in the US suggested that opinion leaders can make or break research impact on clinical practice – actively seeking and securing their support for the research results was crucial to impact.

Example: a systematic review of randomised control trials in the healthcare sector found that educational outreach visits alone were less effective than when combined with reminders or audit and feedback.

No identified practice was judged to be uniquely or universally effective, but their assessment suggests that some approaches are more effective than others:

- *active dissemination*: here tailored materials – both print and electronic – are produced for targeted audiences and can raise awareness of research. They may impact more directly on policy or practice use where discussion of the meaning and application of findings is enabled
- *closer links between researchers and practitioners*: whether through project-specific or ongoing partnerships, these seem to impact positively on attitudes to research and increase the use of research findings. Providing support for practitioners to 'try out' research findings and conduct their own research also seems to be an important aspect of partnership working
- *facilitation of research use*: this can be pursued through well-resourced programmes of training and development for researchers and/or practitioners, and tends to impact positively on attitudes to research and its direct use. These positive impacts are enhanced by the development of support systems
- *recruiting expert and peer opinion leaders*: such people appear to play an important role in shaping awareness of and attitudes to research findings. Where opinion leaders act as research champions, they can increase the direct impact of research on practice change.

Beyond that, the analysis of these practices provides two important general conclusions about the characteristics of effective practices:

- *single versus multiple practices*: the case study organisations do not rely on just one or two discrete practices in seeking to enhance the impact of their research. They combine practices in different ways. There was also evidence from the literature review of the effectiveness of multi-faceted approaches. Multiplicity comes in many variations:
  - reinforcement – including repetition (over time), use of more than one medium (oral, print and electronic)
  - tailoring – providing different materials or events for different audiences
  - complementing – combining different kinds of practice, such as incentives and training, publication and demonstration projects.

  What is an appropriate mix will vary with circumstances
- *short-term versus long-term impacts*: the immediate, tangible impact of research on policy or practice is a rarity. It can occur serendipitously as a connection is made at a favourable time and place. It can also occur where research has been undertaken in response to a predefined need and comes up with usable results. But in the literature and the case studies, it is more common to see lagged impacts of research on practice. There are a number of reasons why impact tends, more often than not, to be long term:

Example: in healthcare, several studies have demonstrated that even when the evidence supporting an intervention is almost incontrovertible, there is often a lag of up to 10 years before that intervention becomes established practice.

- growing awareness of research may take time, especially if it is not actively and directly communicated to practitioners
- changes in intangible knowledge and understanding may be necessary prerequisites for tangible changes in behaviour
- a critical mass of reinforcing research findings (cumulated from different sources, different researchers) may be needed to have authority.

Various practices which mediate between researchers and practitioners may be able to accelerate impact.

Barriers and enablers

The literature review and the case studies also clearly suggest that the contexts in which researchers, policy-makers and practitioners work are an important factor in determining research impact. This was pursued through an analysis of the barriers to and enablers of the effective use of the identified practices. Barriers and enablers are commonly antitheses. Conclusions on both are summarised under the following five headings:

- *culture*: an organisation or a profession will be more or less inclined to either, as researchers, engage with policy and practice; or, as practitioners, engage with research. Reward systems, particularly for career development, can be an important factor here. Cultural attitudes may also be strongly influenced, either way, by the stance of senior personnel towards research informing practice

Example: The Joseph Rowntree Foundation values and safeguards its reputation for independent, high-quality research as an important factor in maximising its influence.

- *salience*: research will be perceived as helpful where it is relevant and timely in relation to the changing policy or practice agenda, so that it has the quality of not just 'nice to know' but 'need to know'. When it lacks these qualities, it will command less attention

Example: the introduction of a performance indicator on repeat victimisation for the UK police raised the profile of research findings on what works in tackling it.

- *competing evidence*: research must always compete with other influences on policy and practice, including other forms of evidence like management information, personal experience, peer opinion. The reliability of research and the reputation of the researcher are important determinants of its competitive advantage and consequent impact. Where research findings are contradictory or highly qualified, then practitioners will need guidance from researchers on their interpretation

Example: the success of Family Impact Seminars in reaching state-level policy-makers in Wisconsin is partly attributed to the careful selection of academic speakers to present the research.

Example: Barnardo's promotes its What works? research summaries through a combination of publication, seminars and staff training.

- *communication channels*: researchers and practitioners must communicate effectively through appropriate media if research is to have an impact. It is not just research results that must be communicated. To design useful research, researchers must understand the exigencies of practice; and to use research, practitioners must understand the research craft. To achieve this, there must be a richness of communication channels

Example: a study of policy-related partnerships between research and practice communities in Canada found favourable effects on the impact of research on practitioners, but both researchers and practitioners required additional infrastructural resources to make this happen.

- *resources and skills*: time (and the money that pays for it) and skills are necessary for the researcher to communicate results into practice and for practitioners to engage with research in their field. These must be organisational priorities.

Summary

The literature review and the case studies revealed a number of practices for maximising research impact, what seemed to account for their effectiveness, and the barriers to and enablers of their application. The need to combine practices and to take a long-term view are important lessons that emerge. Organisational and professional cultures are also strongly influential factors.

Section 4

Strategies and actions for the learning and skills sector

Appendix 3 provides an account of the one-day workshops held in Bristol, York and London with a mix of researchers and practitioners working in the sector. In all, 55 people attended the workshops.

The workshops discussed what the practices revealed in the literature review and the case studies might offer to current LSDA and LSRC research impact activities. The transfer or adaptation of any novel practices depends crucially on the presence in the sector of the noted contextual barriers to and enablers of their effectiveness. So these are first addressed below. Thereafter the practices are analysed to derive a change-based approach to maximising research impact.

Sector barriers and enablers

Some characteristics of the learning and skills sector may make particular practices unlikely to be effective, or even totally inappropriate. Other practices may require adaptation. In relation to the five contextual factors noted in 'Barriers and enablers' on page 19, as potential barriers or enablers to research impact, the sector can be characterised as follows:

- *culture*: a key characteristic of the learning and skills sector is its organisational diversity. This diversity creates significant differences, in terms of organisational cultures and their receptiveness to research evidence, between, for example, large FE colleges, community-based organisations and small private training companies. Organisational culture in relation to research may also be affected by influential individuals within the organisation. However, across the sector the culture tends to be predominantly instrumental: research is more likely to be valued when it assists immediate practical action. The low levels of professionalisation may also inhibit research awareness
- *salience*: the sector as a whole has had more political attention in recent years than hitherto, and new, tough demands are being made upon it to meet targets and demonstrate performance. There is a clear reform agenda, set out in *Success for all* (DfES 2002), to which research for the sector must relate. However, the focus on externally imposed targets and performance indicators can take priority over using research evidence to inform change. Research is likely to be more salient the more it relates directly to targets, performance indicators and the inspection frameworks for the sector
- *competing evidence*: practitioners, especially senior managers in large institutional providers, receive a lot of material, including research outputs, from diverse sources. Not all of this material tends in the same direction. Faced with competing evidence, practitioners rely on trusted, authoritative sources or wait until there is a significant body of evidence in support of change. Systematic reviews of existing research evidence clearly have a role to play here
- *communication channels*: there is no single channel of communication for all parts of the learning and skills sector. The college, community and work-based providers are not well connected. More specifically, there are no strongly established channels which connect research, policy and practice – though the Learning and Skills Research Network (LSRN) has the potential to meet this need locally. The diversity and fragmentation of the sector necessitate multiple channels of communication

- *resources and skills*: national policy has become more research-informed recently through the DfES, LSC, ELWa and LSDA. But the skills and resources for research awareness and use in the domain of practice within the sector are very patchy. Specifically, practitioners typically lack: the time to keep up to date with recent research findings or to develop new methods in response to them, ready access to research outputs, and the skills to interpret and apply research findings to their own practice. Professional development and training tends to be practical in orientation and not necessarily informed by research.

A model of research impact

The conceptual and empirical papers in the literature review revealed that practices to increase research impact are informed by a number of different models of the process by which this occurs. Such models were not explicitly expressed in the documents or interviews for the case studies, but could sometimes be inferred. The main models are:

- self-motivated learning – where the individual or the organisation is an active consumer of new knowledge
- incentives and rewards – where behaviour change is encouraged and conditioned by reinforcements
- rational choice – where individuals or organisations balance the pros and cons of using particular research findings in their work
- social influence – whereby peer opinion shapes attitudes and behaviour towards research and its use
- facilitation – where senior management in an organisation enables research use by ensuring that organisational support systems are in place
- knowledge management – where information systems facilitate the flow of information and the accumulation of knowledge.

All these models for conceptualising the means by which research is adopted see it as a process of change. If successful, then individuals and/or the organisations in which they work become more research aware, more informed by research in their thinking, and more likely to be influenced by research evidence in their decision-making. The models differ, though, in their views of the ways in which this change is brought about. While they could form the basis of alternative strategies for change, several of the models can be combined.

This suggests an approach to maximising research impact which treats the issue as a change management problem, where the focus is on two key dimensions:

- who needs to change understanding or behaviour if research is to have more impact?
- how can change be achieved? What practices will foster such change and consequent enhanced research impact?

Thus the identified practices – and adaptations of them – are potential processes for fostering changes by key actors and organisations. Practices can be applied to more than one kind of actor or organisation, and many of the practices can be applied fruitfully in combination with others. The actors may be individual researchers or research users and the organisations in which they work will reflect each of these domains.

A typology of practices

This approach is represented in the Venn diagram (Figure 3), where the two intersecting circles represent the domain of research production and the domain of research use respectively, and their overlap represents their interaction; and the outer circle represents the organisational contexts in which research is produced and/or used. This provides a typology with four categories of practice within the domains of:

- interaction between research producers and users
- research production
- research use
- organisational contexts.

Drawing on the evidence from the literature review and the case studies and having regard to the barriers and enablers in the learning and skills sector, some of the practices in these categories can be judged as likely to be more effective than others for use – whether in changing awareness, understanding or behaviour – within the sector.

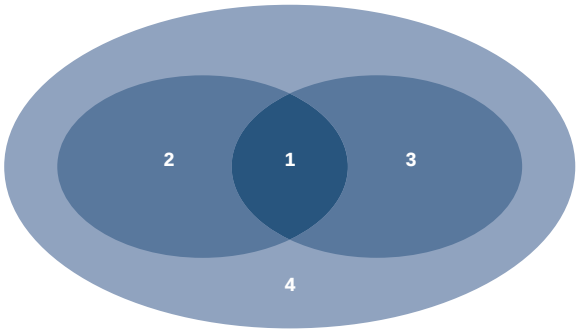


Figure 3
The fourfold typology of practices

1 Changes in research production/ research use interactions
2 Changes in research production
3 Changes in research use
4 Changes in organisational contexts

The first category of practices for improved interactions between research producers and users are the most commonly argued practices for maximising research impact. Eleven of the 27 practices in Table 1 (page 15) fall into this category. Among the potentially effective practices for the learning and skills sector in this category are:

- use of mass media (practice 2 in Table 1)
- presentations (4)
- lobbying (5)
- tailored material (6)
- networking (11)
- project partnerships (12)
- ongoing partnerships (13)
- reminders and prompts (23).

Practices likely to be less effective in the learning and skills sector, given the diverse and often hard-to-reach targets for them, include:

- print publications (3)
- targeting service users (25)
- outreach (26).

All of these, except 13, 23, 25 and 26, are currently in use in one form or another by the LSDA and the LSRC. These practices are quite disparate. Some offer direct contact between research producers and research users; others are indirect – for example, through the media. Again, some are one-way communications, with a research producer 'talking to' a user; others are potentially two-way, with research producers and users 'talking with' each other. These distinctions provide a basis for a sub-categorisation of these interactive practices – shown in the matrix (Figure 4).

Figure 4
Varieties of interaction

	One-way	Two-way
Direct	lobbying tailored materials reminders and prompts	workshops/seminars project partnerships outreach
Indirect	mass media print publications targeting service users	networking ongoing partnerships

A second category of actions to maximise research impact concerns changes within the domain of research production – the left-hand inner circle of the Venn diagram (Figure 3). The focus here is on how researchers do research. The relevant practices are those that change how research is designed, managed and communicated. Table 1 on page 15 identifies five such practices. The potentially effective ones in the sector are:

- research planning (7)
- research programmes (10)
- training and staff development (27).

Others judged likely to be less effective, particularly as stand-alone activities, are:

- standards for research (9)
- incentives – for dissemination (21).

Of these, there is only a strong commitment to research planning (7) in current LSDA practice; the others are less developed.

The third category of actions within the domain of research use to some extent mirrors that in the domain of research production. The focus here is on how policy-makers and practitioners do their business. The relevant practices are those that would help research to make a stronger contribution. Here, drawing on Table 1 on page 15, there are six practices. Four have the potential to be effective in the sector:

- practice guidelines (1)
- demonstration projects (8)
- research champions (19)
- training and staff development (27).

Two should be used with caution:

- incentives – for research uptake (22)
- audit and feedback (24).

Here, only practice guidelines (1) and demonstration projects (8) are already in common use in LSDA through the close coupling of its research and development work. There may be scope for the others.

All of the above processes to foster change in the behaviour of researchers, policy-makers and practitioners and their interactions operate within particular organisational contexts. So there is a fourth category of six practices in the organisational domain contained in the outer circle of the Venn diagram (Figure 3) above. Three have more potential in the sector:

- information and inquiry services (15)
- facilitation of research impact action (17)
- organisational initiatives (20).

At this stage, there is likely to be less potential in:

- co-location of researchers and practitioners (14)
- IT support systems (16)
- office systems (18).

With the exception of an information (but not inquiry) system (15), these practices have not been used so far by the LSDA.

A four-stranded strategy

This fourfold categorisation of the means of achieving change provides the basis of a strategy for maximising the impact of future LSRC research in the learning and skills sector. The strategy would have four strands corresponding to the fourfold typology of practices described in 'A typology of practices' on page 23:

- supporting close interactions between research and practice in fields of common interest
- fostering skills and resources among researchers to do research in ways that will maximise its usefulness and usability for other key actors in the sector
- fostering skills and resources among practitioners, in policy and practice, to use research as evidence to inform their work
- developing organisational contexts, in the different parts of the sector, which support greater awareness and use of research to inform policy and practice.

Given the scope and diversity of the sector, this strategy will need to be adapted to particular circumstances.

The key question here is who are the actors within the sector on whom particular LSRC research should seek to make an impact. Eight different roles and responsibilities can be distinguished among the many organisations or individuals identified in Section 2. These are:

- policy-makers – concerned with defining agendas and priorities, developing policy, allocating resources
- developers – of curricula, programmes, teaching and learning resources, standards, services
- regulators – inspecting performance and assessing outcomes
- providers – delivering courses, managing organisations, developing staff
- trainers and teachers – and their pedagogic practice
- learners – with individual expectations, experiences and outcomes
- employers – supporting work-based learning, developing employees
- researchers – producing evidence relevant to policy or practice.

Their relative importance as a focus for research impact activities will differ between the LSRC's six programmes and between individual projects within them. Table 2 below identifies the key actors whose changes in understanding and/or behaviour should be an objective of each of the six research programmes.

Table 2
Key actors for LSRC's research programmes

	LSRC programme and projects	Key actors
1	**Participation in post-compulsory learning** Understanding the motivation to engage in learning Issues of equality and diversity	policy-makers developers regulators providers
2	**Vocational learning, skills and work** Securing a vocational learning system for the 21st century Involving employers in vocational learning Improving vocational learning and teaching Providing a relevant and responsive vocational curriculum Raising participation in work-based learning	policy-makers developers regulators providers learners employers
3	**Developing learning and teaching** Non-formal learning and its relationship to formal learning Learning-style taxonomies and pedagogy Thinking-skill taxonomies and pedagogy Mixed-age learning The role of ICT in improving teaching and learning The curriculum in the 21st century	developers regulators providers trainers and teachers learners
4	**The organisation of learning** Financing learning in the future The learning institutions of the future	policy-makers developers providers
5	**Developing the workforce for post-compulsory learning** Workforce trajectory analysis Leadership and management Teaching and supporting learning ICT skills	developers providers trainers and teachers employers
6	**Building effective research** Strategies to optimise research impact Building capacity to carry out and make use of research Diversifying and developing research methods	policy-makers developers regulators providers trainers and teachers learners employers researchers

In designing, managing and communicating research within those programmes, different practices, within the four strands of the strategy, will be needed to maximise its impact on those actors. A worked example can illustrate how this approach can be used. For this, a real research proposal – the project on understanding the motivation to engage in post-compulsory learning – has been taken from the LSRC research strategy, but its elaboration here is notional.

In the box on page 29, after the definition of objectives, issues and research design for this project, there follows an analysis of the actors in the learning and skills sector whom the project seeks to influence; and the practices – within a four-stranded strategy – which could be used to maximise the impact of such research on those actors. In this case, this analysis suggests the following:

- research results should be directed towards influencing changes in policy, development and management within the sector rather than, say, in teaching practice
- the research should be planned and managed in partnership with those actors using a mix of generic practices (like consultation and newsletters) and tailored practices (like a special seminar for the Adult Learning Inspectorate [ALI] to explore implications for regulation and new promotional material for learners)
- the choice of researchers to undertake the project should be strongly determined by their skills and experience in engaging with the relevant actors
- the research results should be incorporated into the LSDA's information systems for providers, with associated training and development for them on the use of the research.

Note that this is an initial assessment that needs to be reviewed, and possibly amended, as the research findings emerge – for the results of research and their potential use in practice are not entirely predictable.

Analysis of a number of LSRC research projects in these terms will undoubtedly draw some common conclusions on what is needed to maximise impact. So there will be generic practices that can be developed for repeat use with different projects or programmes. This will obviously be economical. But it will also be an effective way of addressing, and hopefully diminishing, some of the identified barriers to more effective use of research in informing policy and practice within the sector. Within the proposed strategy, there are four particular generic practices which merit development in this way:

- training and development for practitioners in the use of research and an associated recruitment of a cadre of research-supporting opinion leaders in the sector
- building partnerships of researchers and practitioners around each of LSRC's research programmes
- developing a range of communication media – print, oral and electronic – for active dissemination of research, which can also be tailored to specific audiences
- creating an information and inquiry system for research relevant to the sector to serve the needs of research-interested practitioners.

Programme one
Participation in Post-compulsory Learning Project: understanding the motivation to engage in learning

Research objective?

To deepen understanding of what motivates people to engage in learning beyond compulsory schooling.

Issues to be addressed?

- The nature of the economic, social and psychological benefits from learning.
- How a commitment to learning fits into people's life styles.
- In what ways the availability of learning opportunities stimulates demand.
- How these factors differ with age, previous educational attainment, gender, class, ethnicity and locality.

Research design?

- Scoping the issues to be addressed.
- Review of previous theoretical and empirical research on how people learn.
- Analysis of statistical evidence on the pattern of participation in post-16 learning.
- Survey of a structured sample of people over 16 to explore their attitudes towards learning.
- Synthesis of these findings to draw conclusions.

Actors to be influenced?

The conclusions of the project should be relevant to:

- policy-makers: in setting realistic targets, selecting priorities and resourcing appropriate forms of provision for post-16 participation
- developers of curricula and formats for learning which are likely to encourage participation
- providers: in designing, promoting and delivering courses appropriate to local demand
- regulators: in adopting performance measures that are sensitive to learners' motivations.

Practices to maximise impact?

Within a four-strand strategic approach, the following practices to maximise research impact on these actors would be appropriate:

- research–practice interaction:
  - wide-ranging consultation on the scope of the research
  - seminars for practitioners to discuss the results from each stage
  - newsletter to keep actors abreast of the progress of the research
  - a tailored seminar with ALI
  - promotional material for learners
- research production:
  - commitment and skills of the researchers to engage in interactions with key actors
- research use:
  - some training and development for providers on the interpretation of research results
  - audit and feedback on their use of research results in practice
- organisational systems:
  - incorporation of the research results in the LSDA's information and support systems for providers.

Summary

From the analysis of the research impact practices identified in the literature review and the case studies – many of which are already in use by LSDA – a four-stranded strategic approach for maximising research impact in the learning and skills sector has been developed. The four strands relate to practices for the interaction of research production and use, for research production, for research use, and their organisational contexts. Its application has been shown through an analysis of the actors relevant to LSRC's six research programmes and a worked example for choosing impact-maximising practices for one project within a programme. Finally, four generic practices are identified which could be developed for application in a range of programmes and projects.

Section 5 Conclusions and recommendations

Research is only one of the influences on the development of policy and practice in the learning and skills sector. Its contribution has to be weighed along with other concerns – including political priorities, available resources, and practical experience of teaching and learning. Nevertheless, research has an important contribution to make, particularly in the context of the strategy for reform set out in *Success for all* (DfES 2002). Moreover, the sector, which has traditionally been very under-researched, is now attracting greater resources and attention. So it is timely to consider how the LSRC, as its major new research agency, can maximise the impact of the research it commissions. This final section of the report presents conclusions and recommendations to achieve this.

Conclusions

Six conclusions are drawn from the project's analysis.

1 LSRC's ambition in its *Research strategy 2002–05* (LSRC 2002) (noted in 'The LSDA and the LSRC' on page 7) requires an active approach to maximising research impact. This must go beyond ensuring that researchers get their results out – through better dissemination – to helping policy-makers and practitioners in the learning and skills sector to take research results in.

2 Its research should be quite intentionally designed, managed and communicated with the objective of influencing change in the understanding, attitudes and/or behaviour of the key actors in the learning and skills sector (as identified in 'A four-stranded strategy' on page 27).

3 There is a wide range of practices that can be used to achieve this (identified in 'Practices for research impact' on pages 14–17); some are already used by the LSDA/LSRC, others could be added to their repertoire. From past experience, some are more effective than others and some are more appropriate to the learning and skills sector than others.

4 Effectiveness in achieving research impact is often greater when individual practices are combined and impacts may take time to happen (see 'Effectiveness' on pages 18–19).

5 Practices can be grouped into four categories which provide the framework for a strategic approach to maximising research impact that addresses:

- interactions between research production and use
- research production
- research use
- organisational contexts.

All four are equally important. Each requires the development of particular skills and resources (see 'A four-stranded strategy' on page 26).

6 Each project within LSRC's research programmes will have relevance to a particular set of actors (identified in Table 2, page 27) and will require a tailored version of this approach, combining some generic practices (serving the needs of many projects) and some specific practices (applicable to that project alone).

Recommendations

Building on these conclusions, the following six recommendations are made.

1. An assessment of potential impact should be part of the planning phase of each project in the LSRC's research programmes. This should identify the actors whose understanding, attitudes and/or behaviour the project might seek to influence and the practices which might be used – within the four-stranded strategy (see 'A four-stranded strategy' on page 26) – to achieve that. It will need to be reviewed as research results emerge.

2. The budget for a project should include resources to fund these activities to a level proportionate to the actual scale and potential significance of the research.

3. Practices currently used by the LSDA/LSRC (identified in 'Practices for research impact' on page 17) should be reviewed and, if necessary, refined; other identified practices which the LSDA/LSRC have not hitherto used, and which are both seemingly effective and appropriate to the sector (see 'A typology of practices' on pages 24–25) should be developed.

4. To be cost-effective, some practices (identified in 'A four-stranded strategy' on page 28) should be developed and provided generically for use in a number of projects.

5. The impact of a research project, and the effectiveness of the particular strategy used to achieve it, should be reviewed after its completion at intervals appropriate to its scale and significance. Such monitoring and assessment will both enable adjustments to the strategy, if needed, and be a basis for learning about the effectiveness in the learning and skills sector of particular practices.

6. Guidance and training, for both researchers and practitioners in the sector, on all the foregoing recommended measures should be developed by the LSRC.

Appendix 1

The literature review

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Objectives and scope

The purpose of this review was to provide an overview of the literature on approaches to enhancing research use from the education, healthcare, social care and criminal justice sectors. The objectives of the review were threefold:

- to provide an overview of the conceptual frameworks and models which guide thinking and practice on research impact
- to provide evidence of the success of different practices which aim to enhance research impact
- to examine how effectiveness of research impact is best assessed.

This appendix summarises the methods used in the review and its key findings (for further details, see Walter, Nutley and Davies 2003).

Searches were restricted to English-language papers dating from 1990. The review's focus was UK papers, but an international perspective was taken when searching. Given the vast scale of potentially relevant studies, the scope of the healthcare literature searched was limited to:

- relevant reviews of interventions to enhance research impact
- evaluations of four large-scale, multi-site initiatives.

Methods

Search strategy

A wide variety of sources were searched, including electronic databases, both general and sector-specific (including SIGLE, PAIS, Medline, Caredata, ERIC and Criminal Justice Abstracts), reference lists, personal contacts, websites and the internet. Searches were extensive but, as the research impact field is poorly indexed, are unlikely to have been exhaustive.

Selecting papers and data extraction

Around 5800 references were retrieved by the searches. Titles and abstracts were scanned against broad initial selection criteria. In 900 cases, abstracts were unavailable, and these were excluded from the review. A further 4050 papers were rejected at this stage.

Full texts of the remaining 850 papers were sought and 750 obtained in time for inclusion. These were scanned against more in-depth selection criteria; 341 papers met the criteria and the remainder were excluded.

A 'mapping exercise' was conducted for included empirical papers. Data was extracted using a pre-structured format. The results are summarised in Section 2.

In-depth data extraction and a quality assessment were then carried out for all empirical papers, using independently validated tools. Quality assessment aimed to establish the robustness of evidence provided, and was not a basis for excluding papers.

Synthesis

Data from empirical papers was synthesised thematically. Interventions studied were analysed in terms of their content and the theoretical frameworks in which they were implicitly or explicitly embedded. This identified the mechanisms which seemed to underpin interventions. Interventions were grouped and evidence was synthesised according to these mechanisms.

Overview

Of the 341 papers which met the selection criteria:

- 155 were conceptual papers
- two were 'methodological papers', which examined empirically the definition and measurement of research impact
- 59 were classed as 'background papers', which described particular interventions without evaluating them
- 125 were classed as empirical papers, defined as those which reported some form of outcome data.

Empirical papers provided the core data for evidence of the effectiveness of different practices to enhance research impact. Just over half were located on electronic databases. Nearly three-quarters were journal articles, and one-fifth were reports. About half included some form of conceptual discussion in which empirical results were embedded, although a considerably smaller proportion of the healthcare papers reviewed had a conceptual element.

Table 3 shows empirical papers retrieved by sector area.

Table 3
Empirical papers retrieved by sector

NB
Totals do not add to 100% due to rounding.

Sector	Number	Percentage
Healthcare	74	60%
Education	16	13%
Social care	18	14%
Criminal justice	8	7%
Cross-sector	9	7%
Total	125	100%

The proportion of healthcare papers retrieved is large, especially given that the focus was only on relevant reviews and studies of a few specific initiatives. This is a function of the state of development of the research impact field in the healthcare sector relative to other sectors.

For synthesis, empirical papers were grouped into three categories:

- systematic and non-systematic reviews, meta-analyses and overviews from the healthcare field (69 papers)
- single-study outcome and/or process evaluations of interventions to enhance research impact (26 papers)
- studies of research use (30 papers).

Effective practices

This section presents the synthesis of empirical data on the effectiveness of research impact practices. It first discusses how research impact was defined and assessed within the different studies reviewed. It goes on to present evidence of the effectiveness of different practices. Generic barriers to research impact are then outlined. The conclusion draws together findings about what works in the research impact field and presents some key factors for success.

Defining and assessing research impact

Research impact forms a continuum from raising awareness of findings, through knowledge and understanding of their implications, to changes in behaviour. Strategies to enhance research impact may address any point on this continuum. A key distinction can be made between 'conceptual' use, which brings about changes in levels of understanding, knowledge and attitude; and 'instrumental' or direct use, which results in changes in practice and policy-making (Huberman 1993). The aim of research impact strategies will determine how their effectiveness is measured.

The empirical studies examined in this review considered a wide range of forms of research impact:

- changes in access to research
- changes in the extent to which research is considered, referred to or read
- citation in documents
- changes in knowledge and understanding
- changes in attitudes and beliefs
- changes in behaviour.

Some studies also examined impact using proxy measures which compared final outcomes, such as patient health, with those predicted by the research.

Reviews from the healthcare literature almost invariably examined objective measures of the process or outcomes of care. These fail to address any impact at the 'awareness' end of the spectrum. Single-evaluation studies used a range of measures and methods, both qualitative and quantitative, to examine different kinds of research-induced change. Studies of research use most often relied on surveys in which participants report their own behaviour. In all the papers examined, however, it was rare for issues of defining and measuring research impact to be directly addressed or theorised about.

Practices to enhance impact: evidence and theory

This section presents evidence of the effectiveness of different interventions to enhance research impact and of specific factors which may help or hinder their success. It draws on evidence from reviews and single-evaluation studies. No study method is excluded, but mention is made of the likely quality of evidence presented. Interventions have been grouped according to the mechanisms through which they aim to enhance research impact.

Dissemination

Dissemination is the circulation and/or re-presentation of research findings, orally or in written form, and including guidelines and guidance. There is no additional attempt to encourage uptake or use.

Dissemination strategies are underpinned by adult learning theories which argue that personal motivation is important in achieving behaviour change. Practitioners are viewed as active consumers of new information who will keep up to date with research findings as a means of professional development. The assumption is that with effective dissemination, behaviour change will follow.

Two forms of dissemination were identified:

- passive dissemination: unplanned, untargeted, *ad hoc* forms of communication, such as publication in academic journals
- active dissemination: tailoring research findings to a target audience and a dynamic flow of information from the source.

The evidence on dissemination suggests that provision of targeted materials can change attitudes and that associated seminars and workshops can encourage more direct use. Key features of successful dissemination strategies were:

- tailoring approaches to the audience, in terms of the content, message and medium
- paying attention to the source of the message
- enabling active discussion of research findings.

Educational interventions

Educational interventions aim to increase knowledge and understanding of research findings. They use educational approaches which require more active participation by professionals than simple dissemination and are often linked to wider learning opportunities. They are not generally concerned to develop specific skills.

There is a vast array of theories concerning education and how people learn. Successful educational interventions are typically those that address specific educational principles flowing from a range of learning theories. The individualisation principle suggests that individuals learn at different rates and in different ways, and that approaches need to be tailored accordingly (Granados *et al*. 1997). Relevance to learners and consonance with intended outcomes are also important to success.

No robust evidence was found as to whether educational interventions might be effective in changing awareness, knowledge or attitudes. However, a number of systematic reviews and overviews offer generally rigorous evidence of the effectiveness of different educational approaches to change healthcare practice:

- passive and didactic educational interventions have little or no effect in securing evidence-based practice; short events of one day or less were also ineffective
- the effectiveness of group education varied, but improved when this included small group discussions or supervised practice sessions with colleagues or experts
- individual instruction, generally in the form of educational outreach, was widely successful; the impact of the number of visits was, however, unclear.

Social influence interventions

Some interventions deploy indirect strategies which use social influence to inform and persuade practitioners about research findings. Patient-mediated interventions give research-based information to patients, for example, through leaflets or counselling. Opinion leaders, those individuals with a particular influence on the beliefs and actions of their colleagues, have also been used among healthcare professionals to help secure research-based practice.

These approaches are underpinned by social influence and social learning theories which note the importance of changing norms and values. The opportunity to discuss new information with peers provides the chance for social influence to be exerted or for a consensus to develop. Similarly, the diffusion of innovations theory views the adoption of an innovation as an essentially social process in which subjective evaluations will be sought from peers.

Overall, patient-mediated interventions appear to be effective as a stand-alone strategy. Studies of research use have also found that practitioners and policy-makers rely on colleagues as key sources of information. Evidence from systematic reviews of the effectiveness of using opinion leaders is mixed. However, robust evaluations of the PACE and *facts* initiatives in healthcare found that the committed support of opinion leaders was vital to the success of projects (Dopson *et al*. 2001; *facts* undated). Expert opinion leaders appeared to be important in the early stages to help endorse innovation. Hostile or ambivalent opinion leaders could undermine progress.

Collaborations between researchers and users

Collaborative interventions aim to enhance research impact by strengthening the links between practitioners, policy-makers and researchers. They concentrate on improving the flow of information and ideas between these communities.

Huberman's (1993) model of 'sustained interactivity' emphasises the importance of linkage mechanisms between the research and practice communities. It is grounded in social learning theory, which argues that knowledge is socially constructed and that shared meaning will develop through processes of social interaction or social influence. This process can facilitate testing and adapting research findings in practice through 'tinkering', which melds explicit and tacit knowledge and contributes to knowledge creation (Hargreaves 1999).

Limited and largely anecdotal evidence suggests that the co-location of researchers with users can facilitate research use. There is robust evidence that practitioner involvement in the research process can increase both conceptual and instrumental research use. Personal contact, and involving users early in the research process, increased the chances of successful impact.

Small-scale studies from the education field provide some limited evidence that partnerships which allow teachers to 'test out' research findings and encourage collaborative reflection on the research–practice process can be effective. More generally, research use studies found that the experience of undertaking research increased the uptake of findings by practitioners.

Incentives

Incentive-based interventions provide some form of reward or encouragement for activities to enhance research impact, or for behaviour in line with the best evidence.

The use of incentives is based on learning theories which propose that behaviour can be influenced by controlling motivation through internal and external stimuli. Economic models of rational behaviour, which elevate extrinsic reward over intrinsic motivation, are also relevant. These more coercive approaches to enhancing research impact depend, if they are to be effective, on gaining the commitment of those who control resource allocation

Some limited evidence was found on the effectiveness of incentives, usually financial, to support the transfer of evidence to healthcare practice. But overall, findings were mixed.

Outside the healthcare field, there is robust case study evidence of the effectiveness of research funding incentives to encourage the dissemination of research findings and the development of partnerships between researchers and practitioners.

Reinforcement strategies

Reminders and audit and feedback rely on reinforcement to encourage appropriate practice. Both involve the presentation of information about behaviour to individuals or groups, whether before, during or after that behaviour.

Reinforcement strategies are grounded in learning theories of behaviour change, which propose that behaviour can be influenced through reinforcement. Audit and feedback mechanisms also underpin the design of self-regulating systems and are incorporated into ideas of single-loop learning (Argyris and Schon 1978).

The evidence for both audit and feedback and reminders is generally robust, largely derived from systematic reviews of rigorous trials of these interventions. Prompts and reminders have widely been found to be effective as a single strategy and for a range of behaviours. Significant benefit is obtained when computer reminders are used in addition to manual reminders, but both are individually effective.

Findings regarding audit and feedback are more mixed. One of the difficulties of generalising is that interventions may differ in terms of the nature, timing and presentation of feedback. Feedback involving peer comparison or costs does appear to improve practice. There is evidence that effectiveness is enhanced when feedback is presented close to the time of decision-making or is specific (in the healthcare context) to individual patients.

Facilitative strategies

Facilitative strategies are those which enable the dissemination and implementation of research through technical, financial, organisational or emotional assistance. This may include training to develop research-based skills.

Facilitative approaches are rooted in change management theories that emphasise the importance of enabling strategies which provide practical assistance for individuals and groups to support change. Learning theories of behaviour also emphasise the importance of facilitation, the degree to which an intervention provides the means to take action and/or removes barriers to that action.

Systematic reviews provide rigorous evidence to suggest the value of computerised support systems in promoting research-based practice in healthcare settings. Evidence is more limited and less robust concerning broad-based organisational strategies to facilitate the flow of evidence into healthcare. These are often aligned with quality improvement initiatives. Heller and Arozullah's review (2001) supports the importance to success of four key features: strong and committed organisational leadership, appropriately defined goals, a facilitative infrastructure, and integrating changes into everyday practice.

Five individual studies also evaluated facilitative approaches. Interventions varied, but all provided an initial core of training plus follow-up support in the form of written or personal guidance. These studies suggest that facilitative strategies can often be effective where the overall approach to research implementation is more or less coercive: there is no room to negotiate the meaning of the research and front-line staff are required to provide evidence-based services.

Multi-faceted interventions

Multi-faceted interventions are those deploying two or more of the practices detailed above to enhance the impact of research. They use multiple mechanisms to try to get research into practice.

Theories underpinning multi-faceted strategies vary according to the approaches selected. However, overarching, integrated theories, such as the trans-theoretical model, may help to support multi-faceted interventions (Smith 2000). Social learning theories also emphasise the multiple variables that influence behaviour change and so are of value in planning multi-component initiatives.

Robust systematic reviews and overviews from the healthcare literature overwhelmingly conclude that multi-faceted interventions are more likely to be successful than single strategies. Overall, combinations found to be more successful than individual practices were:

- educational materials and feedback
- group education and practice support
- group education and feedback
- educational outreach with other interventions.

However, these studies give no indication of whether combining practices simply provides a cumulative effect or how elements might interact.

Case studies of three large-scale healthcare initiatives (Dopson *et al*. 2001; *facts* undated; Wye and McClenahan 2000) provide some insight into the ways in which multiple mechanisms interact to bring about change. Their findings are less optimistic than systematic reviews about the effectiveness of multi-faceted approaches. However, the key elements of success resonate with those identified for other types of research impact strategy.

Barriers to effective research impact

A range of generic barriers to effective research impact was identified. Those supported by strong evidence are detailed below.

Barriers to researchers engaging in research impact activities

These include:

- lack of resources – money and time
- lack of skills
- lack of professional credit for disseminating research.

Barriers to users' engagement with research

These are:

- lack of time – to read journals, attend presentations or conduct their own research
- low priority
- poor communication of research within organisations
- perceptions of research – for example, internally conducted or commissioned research is more likely to be seen as relevant and hence considered
- research is not timely or relevant to users' needs
- research is less likely to be used where findings are controversial or upset the status quo
- other sources of information may be valued more highly, particularly by policy-makers
- individual resistance to research, especially when viewed as a threat to 'craft' skills and experience – which can have a wider effect if it occurs at management levels
- failure to value research at an organisational level, or an actively hostile organisational culture.

Conclusions – what supports effective impact?

Current knowledge on what makes for effective research impact is imperfect in nature and extent. However, the following practices seem to be effective:

- active dissemination, which can help to change attitudes and may support more direct use where discussion of findings is enabled
- individualised educational strategies and those which allow interaction with colleagues and experts
- supportive opinion leaders, both expert and peer
- developing closer links between researchers and practitioners
- support for practitioners to 'try out' research findings and/or to conduct their own research
- reminders – although these have only been examined in healthcare settings
- adequately resourced facilitative strategies
- multi-faceted interventions, particularly where attention is paid to the contexts and mechanisms of implementation.

The evidence is less clear concerning incentives, although research impact increases when impact activities are a criterion for research funding. This review also points to the importance of explicating the processes underpinning research impact practices and how these interact with specific contexts. Theoretical models can be useful both for understanding these linkages and for planning effective interventions.

Some key features of successful practices also emerge from the literature:

- *research must be translated*: to have an impact, research findings need to be adapted to, or reconstructed within, practice and policy contexts. This can involve tailoring findings to a target group, enabling debate about their implications or 'tinkering' with research in practice. Ownership is important to uptake
- *enthusiasm*: individual enthusiasts can help to carry the process of research impact. They are vital to 'sell' new ideas and practices. Personal contact is most effective
- *contextual analysis*: successful initiatives are those which analyse the research impact context, and target specific barriers to and enablers of change
- *credibility*: impact is enhanced where there is strong evidence, endorsement from opinion leaders and high-level commitment
- *leadership*: strong and visible leadership, particularly at higher levels, helps to provide motivation, authority and organisational integration
- *support*: ongoing support for those implementing changes increases the chance of success. Financial, technical and emotional support are all important. Dedicated project coordinators have been core to the success of several initiatives
- *integration*: to support and maintain research impact, activities need to be integrated within organisational systems and activities. All key stakeholders need to be involved.

Many of these findings come from the healthcare literature where research impact activities have emphasised instrumental changes in behaviour rather than more conceptual uses of research. There is also less evidence of what works in enhancing research impact in policy, rather than practice, contexts. However, this review has found that different sectors share common barriers to research impact, and that there may be value in cross-sectoral learning about what works to overcome them.

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Appendix 2

The case studies

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Objectives and scope

The objective of the practice assessments was to explore, across a range of policy fields, disciplines and sectors, experience of what maximises the impact of research on policy-makers and practitioners. Five organisations were selected (see Table 4) to meet the following criteria:

- organisations with established reputations for relating research to policy and/or practice
- research funders, research producers and research users
- organisations with both a national and regional/local remit
- organisations from a range of sectors and disciplines.

Table 4
Case study organisations

Organisation	Criteria met
Joseph Rowntree Foundation (JRF)	National organisation; charitable foundation; research funder/commissioner; strong emphasis on influencing policy
Barnardo's	National organisation with regional/local delivery; voluntary sector; research producer and user; strong emphasis on influencing practice in the social care sector
Local and Regional Government Research Unit (LRGRU), Office of the Deputy Prime Minister (ODPM)	Government department; research producer and commissioner; national organisation with responsibilities for influencing national, regional and local policy
MORI Social Research Institute (MORI)	National organisation; leading private sector research producer; high-profile media coverage; well-developed links with policy networks
Local Government Association (LGA)	Research producer and commissioner; seeks to influence local government policy and practice and national government policy

Methods

Each case study involved the collation and analysis of data on the relationship between research and policy/practice, and the context within which such interactions occurred. The areas covered were:

- the main actors and activities of the organisation
- the role of research in the organisation's mission
- research/policy/practice interactions promoted by the organisation
- strategies for managing these interactions
- specific actions which aim to enhance research impact.

Data was collected through a review of relevant documentation and interviews with key actors, using an agreed protocol which had been piloted with one organisation.

Overview

Research and organisational mission

All the organisations saw research as part of their mission; in some cases, this was a primary purpose (MORI, LRGRU, JRF) and in others a secondary purpose (Barnardo's, LGA). In most of the organisations, research was becoming more important, or there had been a recent change in emphasis. For example, in Barnardo's, research had previously provided a means of quality assurance, but was increasingly used to underpin evidence-based practice. In JRF, there has been a shift in emphasis towards policy and practice development work, reflected in the establishment of the Policy and Practice Development (PPD) Department which uses the evidence base developed through research to influence policy and practice. The LRGRU has increased in size, in terms of budget and personnel, to meet the increasing demands for research to underpin the local government modernisation agenda and proposed changes in regional government. In addition, the demand for evaluation of all major policies and programmes is a further impetus for growth.

Such changes have come about as a result of external drivers – government emphasis on evidence-based policy and practice – and internal drivers, such as the need to demonstrate continuous improvement and to justify particular patterns of resource allocation. MORI is different from the other organisations studied in that, as a private market research company, it aims to produce research that is not only of a high quality and cost-effective, but also profitable; this was not a feature of any of the other organisations.

Research management and organisation

The organisation and management of research within the agencies varied in relation to whether or not research and policy development were functionally separate. For example, JRF has separate structures for research and for policy and practice development; whereas in Barnardo's, there is a high degree of integration of the two. The LRGRU provides research support to policy colleagues in the local and regional governance policy group within ODPM and it was felt that there were clear advantages in maintaining a distinct research unit, such as concentration of expertise, central management of external contracts and the ability of researchers to look across a range of policy areas. At the LGA, research is located within a research and information division, although there are close working relations with project officers.

There is also variation in the degree of centralisation of research. In Barnardo's, researchers are located in regions and each has responsibility for work related to specific aspects of the organisation's mission. This devolved structure is seen as a means of reducing the distance between research and practice, and also of informing policy-making at whatever level that occurs. None of the other organisations studied devolved research on a geographical basis, although almost all had some devolution to the level of teams. The MORI Social Research Institute, for example, is structured around 16 business areas.

Most of the organisations studied had a research programme, but also reserved some capacity to operate in responsive mode. Barnardo's develops an annual programme of research, but reserves approximately 20% of its annual research budget for responsive research; JRF commissions and funds research through coordinated programmes of work overseen by four R&D committees, but also responds to individual proposals from researchers; the LGA sets research priorities in accordance with the LGA business plan, but also undertakes a substantial amount of work in response to policy developments.

The process by which the LRGRU sets research priorities and develops its annual research programme is instructive. Researchers within the unit regularly scan relevant research and liaise with policy colleagues to identify new ideas, gaps in the evidence and research base and key issues for the future. Initial consultations take place with policy colleagues to discuss research needs in the context of programmes and policy developments. Meetings are then held with the divisional managers from the Directorate of Local Government Finance, the Directorate of Local Government Organisation and the Regional Government Unit. A consultation paper is produced and sent to stakeholders, to the Neighbourhood Renewal Unit and to other departments for comment. A draft research programme is submitted to the minister. Following ministerial approval, the programme is signed off and published in the annual research newsletter. An annual review meeting is held which draws together policy-makers, consultants, academics, practitioners and other organisations (eg JRF, ESRC). This process is important in linking research to the policy process and the development of programmes.

In MORI, research is typically undertaken following a successful response to an invitation to tender. However, MORI also proactively identifies research gaps in relation to current policy and markets its services accordingly. Each business area drafts an annual business plan including an analysis of developments in its area and likely areas for future research.

Effective practices

Defining and measuring research impact

None of the organisations studied has an explicit framework or model for conceptualising or measuring research impact, although implicit frameworks were identified. For example, Barnardo's (2000) has undertaken an investigation into the key elements which link research and practice, resulting in changes within the organisation. The elements identified are as follows:

- research devolved to regional offices
- research undertaken around three core functions: to inform practice, to influence policy, and fundraising
- multiple mechanisms for impact.

The LRGRU does not have an explicit model for conceptualising research impact. Under the former Department for Transport, Local Government and the Regions (DTLR), an independent review of research programmes was commissioned every 5 years. The last review of the LRGRU programme was completed in 1999 and considered the years 1994–1998. It was based around the ROAME statement (Rationale, Objectives, Appraisal, Monitoring and Evaluation) of the LRGRU, but also considered issues of organisation and management and new government policies.

Several organisations stressed the importance of not overemphasising the role of research in policy formation or practice change. In Barnardo's, research evidence is regarded as just one form of knowledge; policy and practice will also be affected by practitioners' own knowledge and experience and also by wider political developments. Research alone rarely brings about change. Similarly, the view in JRF was that impact cannot be seen as a linear process; there is rarely a direct transfer from research to policy and practice – the reality is typically more 'messy'.

A similar view was expressed in LRGRU. Research informs different parts of the policy process, such as policy design and decision-making, implementation and evaluation; and, in different ways, through structured research and evaluation programmes, regular briefings, responses to policy colleagues and ministers. Research and evaluation evidence provided by the LRGRU was seen as one form of knowledge; policy-making is also informed by manifesto commitments, the interests of other policy actors and their evidence, and processes of political negotiation.

For MORI, research impact represents a secondary purpose and is closely related to marketing – if their research has an impact, then this will enhance MORI's reputation and attract further business. So, while MORI evaluates client satisfaction, it does not ask clients about research impact, although MORI does monitor public impact through press coverage. The key elements in maximising research impact were thought to be:

- understanding the client's needs and objectives in carrying out the research
- understanding the context for the research
- producing accessible research reports that propose realistic specific actions.

The LGA operates with a number of implicit models of research impact:

- research into practice – to inform a particular policy stance
- problem solving – how to address an issue
- interactive – for example, practitioner research which is gaining more credibility as 'proper' research
- tactical use of research – to inform a policy stance or to support an argument relating to the LGA's lobbying role.

Models and examples

Approaches to maximising research impact were reviewed at the level of overarching strategies or principles and also at the level of specific actions.

Strategies for maximising impact

The practice assessments threw up a range of different strategies for maximising research impact. These are grouped by organisation.

Barnardo's is characterised by:

- *devolved structure*: reflecting the belief that research is most effectively conducted in close proximity to the delivery of services it was felt that this structure has achieved the objective of strengthening links between researchers and the devolved offices and practitioners, but has raised issues of coordination which are currently being addressed; the use of the intranet has been important in this regard
- *policy development and influence*: one of Barnardo's central remits is to influence public policy, particularly at a national level. Increasing emphasis is placed on evidence-based policy-making within Barnardo's and, to support this, research and policy are integrated within the organisation. Despite the two functions being largely separate in terms of geographic location (research being devolved and policy centralised), the frequency of policy and project meetings and the use of electronic communication ensures close working relations. The policy unit typically sets up a policy project team that includes both practitioners and researchers; this aims to make policy positions stronger through being grounded both in evidence and the experience of practitioners
- *influencing practice*: research is undertaken in partnership with practitioners and increasingly seeks to engage young people. A pilot initiative has been developed involving the appointment of a research development officer to work with a specific project to make links with the wider evidence base
- *multiple mechanisms for impact to link research with policy and practice*: the mechanism with the highest profile is the What works? series which is disseminated through regional seminars to highlight the implications of evidence and key findings. These publications are also used to inform staff development activities
- *the Excellence Model*: this is currently being implemented, based on three strands – outcomes, standards and participation. Research and evidence-based approaches are embedded within the model and will strengthen research impact. For example, it will become a requirement that all new projects ask what evidence and relevant literature exists at an early stage of project development.

In the Joseph Rowntree Foundation there are:

- *project advisory groups*: these are established for all research projects with responsibility for overseeing the project, providing support and advising on dissemination
- *coordinated programmes of work*: these are funded in preference to one-off projects in the belief that such programmes will have more impact
- *the Policy and Practice Development (PPD) Department*: this has been set up to focus on a small number of priorities to target resources on areas where change is most likely to be achieved
- *an outcomes model*: this is to increase the effectiveness of JRF in terms of achieving change and to focus on areas where change can be delivered within definable timescales and budgets. There has been little evaluation of the effectiveness of this approach as yet, but evaluation work is planned for the future
- *the planning of dissemination activities*: this is a key element of the framework for linking research and policy and practice. The emphasis is on the dissemination of timely, accessible and relevant research findings. Dissemination is now reviewed at project outcome meetings held quarterly. In addition, 6 months before a research report is due to be published, policy targets are identified which then inform the dissemination strategy
- *a move from 'researching' to 'changing'*: in some policy areas, it is felt that there is now a sufficiently robust evidence base, so there has been a move away from the funding of research and an increased emphasis on developmental projects and linking to national policy networks
- *a focus on consensus building*: the PPD Department has an increasing focus on consensus building among stakeholders. Steering or advisory groups of experts are set up in relation to policy issues, with the aim of reaching consensus based on the available evidence, with JRF acting as an 'honest broker'.

For MORI, research impact is generally seen as being outside its remit and inextricably linked to marketing. However, three elements to their approach were identified:

- plan ahead and see what is coming
- find out where the interest is
- use the media to publicise research.

LRGRU is characterised by:

- *interaction between research and policy colleagues*: this underpins the translation of research into policy and the identification of appropriate research questions. However, the functional separation of LRGRU allows it to act as a buffer between short-term policy pressures and longer-term research requirements, permitting a mix of practical and more fundamental research questions to be identified and greater freedom to provide independent and robust evidence to policy units and ministers
- *research input into policy learning*: in the early stages of policy implementation, information may be required to contribute to policy learning both within the department, but also among stakeholders in local areas. This typically takes the form of guidance or good practice guides that aid the quick and effective implementation of policies
- *links with other policy areas*: LRGRU research may have relevance for other areas of government, for example, in a wide-ranging review of a particular policy area where the LRGRU has already undertaken research, or has access to a raft of research and evaluation evidence
- *a contribution to the formal requirements of policy implementation*: this typically takes the form of process and impact evaluations
- *the role of its researchers*: researchers are alert to the possibilities of research, current research trends and the needs of policy colleagues and ministers; they also promote the role of research.

Among LGA's approaches are:

- *project-focused research*: as LGA projects are developed, a project plan is produced which identifies the research element, including resources and outputs
- *use of case studies and good practice examples*: it is felt that these can provide a more accessible form of research findings
- *repackaging existing research findings/drawing on an existing body of research*: for example, the LGA is currently undertaking work on tackling small areas of deprivation in otherwise affluent areas. Existing research is being used to identify relevant information data
- *accessible knowledge management systems*: good practice examples/case studies researched by the LGA are fed directly into the IDEA knowledge management system
- *research timed to coincide with major conferences*: for example, recent research undertaken on climate change was timed to be launched at a major conference
- *internal communications*: a daily bulletin from the research team is distributed throughout the organisation. An intranet system is being developed which will give the status of projects, updated weekly.

Specific actions

The following specific actions were identified across the range of organisations reviewed.

Publications

All the organisations produce paper-based publications that either report in full on research undertaken, provide summaries, or draw attention to research that has taken place. For example, JRF publishes *Findings* – short, well-produced summaries of findings from research projects that are available free, both in paper and electronic format. The emphasis is on readability and accessibility to a wide audience. *Findings* has a wide circulation, with mailings targeted at particular audiences in the academic, policy and practice arenas. The *Foundations* series published by JRF is similar in format to *Findings*, but draws together the findings from a series of research projects. JRF has also developed a range of other specialist outputs including *Plain facts* (summaries of project findings for people with learning difficulties and their supporters), audio tapes, videos, publishing on disk and in other languages.

All LGA research is published and disseminated through research reports, sent free to all chief executives but paid for by others, and research briefings, which are available free of charge and downloadable from the web. The MORI Social Research Institute publishes a general newsletter and sector-specific newsletters, which are distributed widely to research users, practitioners and the policy community.

Increasing use is made of electronic means to disseminate research findings. In Barnardo's, the intranet allows practitioners, policy officers and research officers to access internally and externally produced research material. The LGA uses an electronic bulletin to update staff on current research.

Face-to-face dissemination

All of the organisations use some form of face-to-face dissemination to reinforce paper-based or electronic methods. Barnardo's organises regional seminars to promote the What works? series and provide a mechanism for cascading research findings through the organisation. JRF holds Stakeholder Events – either a one-off conference or a seminar series – which will draw together key stakeholders to debate research findings and ways of taking them forward. MORI runs workshops organised around topical issues and provided free to research users, practitioners and the policy community.

Partnership working

Partnership working is widely seen as a means of enhancing impact. For example, JRF has joint publishing arrangements with a number of organisations that have marketing expertise within a relevant area.

Involvement in networks

Involvement in policy and research networks is an important method of enhancing impact. For example, JRF has good links into national policy networks and has also been active in developing a number of practitioner networks, which provide a useful conduit for the dissemination and implementation of research findings. A recent example is the Care Co-ordination Network, for which JRF has provided development funding for 2 years, with the aim of better supporting change and practice around the care for children with physical disabilities. Key members of JRF staff are members of policy development structures established by other organisations such as the NHS National Service Framework group for children and the Ministerial Sounding Board on Local Government. Similarly, Barnardo's is well connected to policy networks relevant to children and is routinely consulted on proposed policy changes. The organisation is represented on the research commissioning panels of the Department of Health and the ESRC Evidence Network and has developed less formal links between regionally located research staff and health, local authority and academic networks. LRGRU also participates in and hosts meetings of the research and policy community relevant to local and regional government.

Press releases and media coverage

MORI, the LGA and JRF, in particular, use the media to publicise research findings. MORI monitors its coverage in the media and employs a communications manager. JRF is effective in gaining good media coverage for its research findings and has its own press office that will target findings at the most appropriate audience. At the LGA, public relations staff are involved early on in the design of the project and the target audience for the research is identified.

Staff development

Barnardo's, given its role in service delivery as well as research and policy development, uses research to inform staff development and training, thereby encouraging a change of practice. The organisation has also been involved in developing research guidelines for use by its own staff, which set standards (on what is required in evaluations) and core principles for undertaking research (eg engaging with young people). LRGRU also contributes to the production of good practice guidance to facilitate fast and effective implementation. JRF produced specific packages of research for practitioners around the issue of looked after children as part of the Dartington Research into Practice Network; it has also synthesised a range of research findings into one accessible report for practitioners.

Demonstration projects

JRF is involved in running demonstration projects undertaken either through JRF or the Joseph Rowntree Housing Trust (JRHT) or with other partner organisations. A recent example is the CASPAR homes initiative, a JRF-funded project which aimed to demonstrate a gap in the housing market for affordable city-centre homes for young people.

Inquiries and taskforces

JRF has established a number of inquiries in key policy areas. Examples include the Funding of Long Term Care, the Income and Wealth Inquiry and, more recently, the Land Inquiry. These are high-level and influential, and draw upon a wide range of research evidence. Taskforces are set up to look at certain areas of policy or practice, to define possible ways in which the problems can be resolved, to come up with solutions and identify policy change that needs to happen. A recent example is the Disabled Parents' Task Force.

Barriers and enablers

The following factors were identified as enablers contributing to research use and impact.

Communication

This encompasses both an appropriate and targeted communications strategy and also the quality of presentation of outputs. One aspect of quality stressed by MORI was the importance of concrete and practical recommendations. Effective use of electronic means contributes to effective communication. LRGRU recognised that their research 'customers' increasingly include people outside the department. It is therefore important to communicate research effectively to, for example, councillors and senior local authority officers or those working with young people. The LGA seeks to involve press and public relations staff from the start of a research project in order to consider how best to 'sell' the messages from a project.

Organisational reputation

Barnardo's felt that its policy influence was greater because of its size and profile within the voluntary sector. Similarly, JRF is independent and this contributes to its influence at national level.

Quality

Building up a good evidence base with sound, reliable and robust findings was felt to be an essential precursor to change. LRGRU felt that achieving high standards in the research that it undertook or commissioned was crucial, since this research was relied upon by the department, the wider executive, parliament, other organisations and citizens.

Involvement in networks

MORI, JRF, LRGRU, LGA and Barnardo's all mentioned involvement in research and policy networks as an enabler of research impact. MORI and JRF felt that partnerships and alliances with key organisations in a particular policy field can give research added credibility and encourage use. LRGRU plays a key role not just in shaping and managing research in the ODPM, but also in external organisations such as the ESRC and JRF. This has the benefit of reducing duplication of effort, promoting joint working on research programmes, and in creating wider research forums around local and regional government issues.

Integration and coordination

For Barnardo's, effective links across the organisation are essential to research use. This is effected through the devolved structure, use of multi-professional and cross-disciplinary teams in the field of policy development, and the participation of locally based research officers (in the English regions, Scotland, Northern Ireland and Wales) in local project management teams. In LRGRU, although most research 'customers' are within the department, effective links are also needed with other departments and agencies. These operate in a number of ways, for example, through the sharing of research findings, joint working on particular policy areas and use of research generated elsewhere.

Persistence

Messages arising from research may need to be reinforced and repeated in order to achieve change.

Professional culture

A perceived strength of the LRGRU is that it employs professional social researchers who are proactive in relation to policy developments and trends in research. Furthermore, positive attitudes of policy staff towards research and evaluation enhance their use.

Among the identified barriers to research use and impact were the following.

Time

Lack of time on the part of policy-makers and practitioners is widely seen as a significant barrier to use. JRF felt strongly that there should be an onus on research producers to use effective and creative approaches to reduce the time required by research users to absorb, reflect upon and adopt research findings and recommendations. Barnardo's felt that strategies could be developed to build in time for learning and review, evaluation and staff development.

Organisational/professional culture

The general view was that organisational or professional cultures could be a barrier to research use; some professions, such as social work, were seen as being generally less receptive to an evidence-based approach. Thus, in order to maximise use and impact, it was incumbent on the researcher to understand the organisation that commissioned the research and its context.

Politics/direction of policy

JRF saw political ideology as a barrier to policy change, especially at the national level. More generally, and not surprisingly, research was felt to be more likely to have an impact when it is consistent with the direction of policy and dominant political values.

Lack of commitment to the research

For MORI, an important barrier was the lack of commitment to the research by anyone with sufficient seniority within the commissioning organisation to act as a champion for the findings.

Short shelf-life of research

At the LGA, it was felt that research has an impact when it is new and is used for the purpose for which it was commissioned (for example, by a particular project officer). Subsequently it tends to have relatively little impact, even though it may be timely and still relevant. It was felt that project officers often did not make the best use of research, which is partly a result of issues around staff turnover and new staff not being aware of relevant research already undertaken.

Producers' interests

At the LGA, it was felt that research and its dissemination tend to be driven by the producers and take little account of how practitioners access and apply research findings in practice. One aspect of this is the type of research that is commissioned by large funding bodies and which tends to be theoretical rather than practically oriented.

Appendix 3

The workshops

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Objectives and scope

An important element of the research project was to feed back preliminary findings to representatives from the learning and skills sector. This exercise was intended to serve two purposes. First, it would enhance the research team's understanding of the learning and skills sector, and the role of research within the sector; second, it would provide an opportunity to 'test out' with participants emergent models for research use drawn from our examination of other sectors and examine the potential transferability of those models to the learning and skills sector.

To that end, three events were organised through the LSDA. Two 1-day workshops were held in York and Bristol to which members of the regional Learning and Skills Research Networks (LSRNs) were invited; and a presentation on the research followed by discussion was incorporated within an LSRC colloquium held in London with an invited audience. All three workshops generated useful discussion and the key elements are summarised below.

Characteristics of the learning and skills sector

Participants were invited to characterise the learning and skills sector. The following features were identified as significant:

- the sector is broad and very diverse. There are differing views as to its composition and parameters, for example, inclusion of voluntary sector providers of training
- there is diversity within the sector, not only in terms of the range of different providers, but also in terms of the size of providers; for example, there are important qualitative differences between very large and very small colleges
- the profile of staff within the sector includes large numbers of part-time and temporary teachers
- the sector has been subject to enormous externally driven change in recent years. However, it was widely felt that this had had relatively little impact within classrooms
- the inspection regimes have had an impact and are considered to be an increasingly important driver of change
- part of the current context is a shift in the profile of the student group now entering FE colleges: there are greater numbers of lower-ability students and many more problems with managing challenging behaviour in the classroom.

Role of research within the sector

Participants were asked to describe the research that is currently carried out within the sector and their perceptions of its relevance and value. The following points were made in discussion:

- it is necessary to distinguish between research to inform practice and research to inform policy. In relation to the latter, research contributed to the evidence base, but that evidence base is just one element contributing to policy – final decisions rest with politicians whose decisions are also informed by values, beliefs, ideology etc
- much research that is carried out within the sector is very instrumental in purpose – to support a funding bid, for example, or to inform a local learning plan. A significant amount of research funding within the sector is effectively earmarked for specific purposes
- local research tends to be trusted within the sector, particularly that emanating from colleges themselves. There is considerable suspicion of national and regional research, reflecting high levels of parochialism
- research that is challenging or goes against the grain of existing practice is much harder to put into practice, but this is where attention should be focused
- the kind of research that is carried out, the methodologies used and the credentials of the researcher affect how research is seen. For example, it was suggested that there is a 'hierarchy of evidence' with approaches such as cost-benefit analysis and randomised control groups having a bigger impact on policy and practice. There was also a view expressed that much of the relevant evidence is or could be contested
- there is the potential for conflicting messages between what research or evidence suggests and what practitioners are being told to do through target setting and inspection frameworks.

Agents of change

Workshop participants were asked to identify those whom they felt were the key agents of change within the sector. The following organisations, institutions and individuals were identified:

- DfES (including the new Standards Unit) and other government departments with a role in funding education and training, including the Department of Trade and Industry (DTI), the Department for Work and Pensions (DWP), the Home Office
- the National LSC, Education and Learning Wales (ELWa), local LSCs
- Regional Development Agencies (RDAs)
- the European Social Fund Unit (ESFU) and other grant-making bodies
- senior managers in provider institutions
- inspectorates and regulatory bodies – OFSTED and ALI
- the new Leadership College.

In addition, it was felt that policy-makers have a role in enhancing the research–policy–practice interface by ensuring that policies are evidence-based.

Research producers need to ensure that research agendas are more relevant to practitioners. The co-location of researchers and practitioners could help in this process, as could greater involvement of users in the research. In addition, research producers need to make their outputs more user-friendly, for example, through good practice toolkits, checklists, practitioner guides etc. Users wanted to be able to take research off the shelf and apply it directly and are mistrustful of 'academic' research.

Research producers and commissioners need to ensure that the type of research and methodologies used are appropriate, for example, by achieving an appropriate balance between quantitative and qualitative research while, at the same time, ensuring that outputs 'cut ice' with their intended audiences.

Intermediary organisations have a role to play in distilling and synthesising research to make it relevant to particular audiences and in evaluating research on behalf of practitioners. However, there was no agreement on who could provide this intermediary role.

Inspectorates have a role to play and, it was argued, could be a catalyst for change if 'evidence awareness' became a criterion within inspection frameworks.

Senior managers could use their responsibility for staff development as a means of ensuring that research awareness is built into CPD and training. The Standards Fund was one possible source of funding for this.

Barriers and enablers

The following points were made under this heading:

- the timing of research was felt to be crucial: research must be timed for greatest impact and relatively short- and long-term research impacts need to be distinguished
- lack of time was thought to be a key barrier to research use for practitioners who do not, typically, have 'reflective practice' time to allow them to engage with research findings. This might be addressed through better planning and scheduling of work; however, it was also felt that it would probably require considerable organisational and cultural change. Furthermore, it might be more easily resolved within larger organisations than in smaller ones with few resources. The example was cited of network and development events that have been set up to support voluntary sector providers in Devon; it includes payment to part-time staff for attending
- low morale within the sector was felt to be a barrier to research use
- the nature of some research was also felt to be a barrier to utilisation. For example, the view was expressed that bad research is worse than no research. In addition, some participants felt that many research projects do not build on previous research and existing knowledge; building a body of evidence is a cumulative process.

How to contact the LSRC

The LSRC welcomes continuing interaction with researchers and research users. Please contact us with your questions, ideas and information.

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