Improving post-16 learning: the challenges for education researchers in the Teaching and Learning Research Programme

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Introduction

This paper raises some questions about the challenges that education researchers face in making their questions, methods and findings more accessible and useful as a basis for trying to improve post-16 learning.   Such a challenge becomes even more complex in a context of increasing political pressure where policy makers hope that research will identify those improvements in learning that will break cycles of social and individual deprivation (see, for example, Lewis, 2002; DfES, 2002a).   Our paper relates these broader challenges and expectations to the specific demands being placed on the Economic and Social Science Research Council's programme of research into teaching and learning (TLRP). This link is important because the TLRP is the biggest programme of research into teaching and learning ever put together in this country and there are therefore high expectations that it will offer sound evidence to a wide range of user groups and audiences about how to improve teaching and learning across all phases and sectors of education and training. However, the TLRP is only one strand in education research: a large number of research questions, problems and projects in the field of post-16 learning are generated elsewhere by other researchers and organisations.

In this context, the paper aims to:

- identify the aims and remit of the TLRP
- show how TLRP is establishing links with research outside the UK
- identify the main agencies and organisations involved in generating and using post-16 research
- highlight some challenges facing post-16 researchers who wish to make their findings have more impact
- identify possible features of a 'progressive' research programme.

1. AIMS OF THE TLRP

Impact and transformation of knowledge

The TLRP aims to produce evidence that might enable policy makers, institutional managers, teachers and curriculum designers to improve the quality of teaching and learning across all phases and sectors of education and training. It is the biggest research programme ever funded in education. The total cost, once Phase 3 begins in October 2003, is some £27 million. The DfES paper for the OECD's review of education research in England suggests through a "combination of income and expenditure sources and

inspired guesswork that [overall expenditure on education research] is between £70-£75 million" (DfES, 2002b). Outside the TLRP, the ESRC funds about 5% of this. 90% is carried out in universities.

The sheer size of the TLRP and its ambitious goals creates high expectations, both in terms of producing evidence about teaching and learning but also in terms of improving the quality of education research and its ability to offer sound and robust evidence about teaching and learning. This links to high expectations that researchers and the programme's directors will engage constructively with a very wide range of 'user groups' and other constituencies in order to consider the implications of the research findings and to translate them into usable and sustainable practices. There are ambitious plans for communication, dissemination and impact that go beyond the usual outputs of academic books and journal articles, and for building research capacity amongst groups and individuals outside the research that goes on in universities. This goal arises, in part at least, from strong criticisms that 'rampant ad hocery' characterises the dissemination of academic research (Hillage, cited by DfES, 2002b).

Finally, a programme should offer added value in terms of cumulative insights that go across projects, new ideas about theory and practice and about the communication, dissemination and impact of research. 'Transformation' of knowledge is therefore an aim of the programme as a whole and there is great interest in what a coherent programme can offer over and above a series of linked but separate projects (see Pollard, 2002 @www.tlrp.org.uk for a review of the challenges facing TLRP). A further challenge to the notion of impact and transformation emerges from the DfES report for the OECD review of educational research in different countries. This has the aim to "review the extent to which the educational research and development system within a country is functioning as an effective means for creating, collating and distributing the knowledge on which practitioners and policy makers can draw" (DfES, 2002b). This goal is central to the work of the National Forum of Educational Research that seeks to achieve similar goals.

Knowledge combination and creation

One area where TLRP is attempting to be rather more inclusive than some previous ESRC programmes is through the use of thematic work groups, covering learning outcomes, learning throughout the life-course, synergy, international comparisons, ICT and capacity building. These groups are due to begin work in 2003 and will contain members from within and beyond the programme. A key goal is to address the challenge of combining knowledge from insights generated from within and beyond the programme, rather than just focusing upon the familiar goal of knowledge creation.

This is particularly relevant to practitioners as well as researchers because increasing emphasis is given to the ability of professionals to create, mediate and translate new knowledge within their institutional setting. Interest in this goal therefore entails explicit recognition that practitioners have a key role to play in generating new knowledge and then applying it in practice. Teaching is, of course, an example of a profession where there have been explicit attempts to move more towards making it a research-based profession, where practice is not only informed by research, but new knowledge about practice is capable of being generated by the professionals themselves.

From a TLRP perspective this could be linked with an attempt to create a wider community of practice that embraces research as a guide to both policy and action. Professional knowledge can be regarded as a personal synthesis of received occupational knowledge and situational understandings, derived from experimental learning. A growing body of research is beginning to illuminate how knowlege can be futher transformed through a process of critical reflection (for example, Hammond and Collins, 1991). As expertise develops, and new contexts are utilised in the performance of practice, so the processes of research, review and reflection can lead to the creation of new forms of knowledge (Engeström, 1995).

TLRP is seeking to deliver breadth and depth of knowledge development and the application of this to professional practice. In Nonaka & Takeuchi's model of knowledge transformation, it is the combination of different types of knowledge that is often problematic (Nonaka and Takeuchi, 1995). In this context, it is the combination of new and existing forms of academic and practical knowledge that represents a particular challenge, and it is one that TLRP is trying to address.

Post-16 research concerns and interests

Phase 1 of the TLRP comprises networks of projects around a particular theme. The network with most relevance to the theme of adult learning is the one on work-based learning which is revealing some fascinating insights about the factors that help and hinder adults' ability to learn at work. Such factors include restrictive or expansive learning environments within organisations, the impact of regulation and trades union practices.

Phase 2 comprises projects across primary, secondary and further education. Two have direct relevance to post-16 learning. The first is a large project exploring the factors that affect learning in further education colleges. This is revealing some important insights about the very complex interactions between learners' and teachers' histories and 'learning biographies', institutional ethos and culture, group dynamics and expectations and between the curriculum and student/teacher relationships. Although at an early stage, this project suggests that the idea of finding best practice and then translating it into implications for changing practice is not straightforward because learning is very context-specific and located inside particular communities of practice created by the factors I've summarised here. The second is exploring how graduates learn and apply their knowledge as new entrants to different professions and work-based contexts.

Phase 3 will comprise a portfolio of projects from different post-16 sectors, including work-based learning, professional development, adult and community education and higher education. A range of issues are emerging from these bids, highlighting the concerns and interests of experienced post-16 researchers, including:

- questions about how post-16 learners' learning identities and biographies are shaped within different socio-economic contexts and the impact of these identities on life chances
- the impact of work-based provision on the learning and influence of basic skills
- how learners navigate informal and formal types of literacy and the impact of these types on pedagogy in further education
- the impact of different initiatives in family learning
- the interface between broadcasting, ICT and informal learning

- the correlation between life history events, achievement in formal education, health and attitudes to learning
- the impact of policy initiatives at different levels of the system on notions of best practice

Phase 3 is currently at the reviewing stage with 46 short-listed bids being assessed, and final decisions will be made in February 2003 about those that will be funded to begin research in October 2003. Of the 46, approximately 12 will be funded and the complete list of titles, outlines and the criteria being used to assess the proposals them, is on the TLRP website (www.TLRP.org).

2. INTERNATIONAL LINKS

The importance of international comparisons

An important focus for facilitating knowledge combination is the work of the TLRP thematic group on 'international comparisons in teaching and learning'. This will seek to build synergies between work in the UK within and beyond TLRP and research in other countries through international comparisons of teaching and learning. Whereas in the past some programmes have seen this as almost exclusively a programme activity, a key principle in the TLRP is to seek involve project teams directly in international activities. To this end, the directors' team is actively investigating opportunities within the European Sixth Framework Programme to strengthen collaborative links at both programme and project levels. A crucial question here is how cross-national co-operation adds value to national research on teaching and learning, and the extent to which we want to support the development of a European Research Area.

Some of the broad issues that TLRP might address include:
- identifying key issues for comparative teaching and learning research
- promoting international comparisons or international collaboration
- length of time necessary to understand complexity of teaching and learning in different cultural contexts
- comparison of research results
- identifying significant national practices
- innovation dissemination to national and international stakeholders
- policy level influence
- national initiatives – representation and reality.

Perhaps it may be helpful to give some examples of collaboration that is already underway. TLRP already has links with national programmes on different aspects of teaching and learning in Finland, the Netherlands and Norway and is investigating collaboration with programmes in Sweden and France. The aim will be to stimulate interaction between national learning research programmes in order to accomplish broader and deeper trans-national and trans-disciplinary research co-operation. Over the next year or so, TLRP will seek to build opportunities for substantive international collaboration, including through:

- thematic research co-operation
- joint cross-national workshops and conferences

- researcher exchange, especially training of young researchers.

At the moment some suggestions for European collaboration are that it could work initially upon a reinterpretation of lifelong learning (broadly defined) and another focus could be upon developments in work-related learning. These ideas could be expanded as follows:

Redefining Lifelong Learning

More open access to knowledge creates new requirements for learners, making the capacity to manage one's own learning fundamental to subsequent development. Learners need the ability to learn and use learning as a tool for a quality life. However, the differences between situated, context-specific learning and notions of 'transferable' learning as a core skill are contested areas of theory and practice. International comparisons might help us understand more about the following issues and questions:

- **Initial education and training and qualifications systems should develop a positive attitude towards lifelong learning**. For example, there is a need to identify the design characteristics of learning and assessment in initial education and training that facilitate life-long learning and to consider how the 'learning careers' of individuals develop over time and across all sectors and phases of education.

- **Crossing boundaries between institutional and non-institutional learning.** Learning and knowledge are no longer seen as monopolies of educational institutions. There are now many other forums of learning, including working life and work organisations, and people also learn for their own personal and communal motives. Information technology has created a powerful new arena for learning, both in the formal and informal settings of education, through the Internet and virtual communication and learning spaces.

- **The meaning of the social and cultural context of learning.** New research is needed in order to discover the best way to make learning a real resource at individual, cultural and societal levels. The family is perhaps the most important fund of cultural resources and capital. Another important learning context is working life and its organisations in addition to school and home.

- **The significance of 'transfer' in learning.** Understanding the processes by which knowledge is created, refined, used, transferred and applied are critical emerging challenges for learning research and there is a need to build upon the growing body of theoretical work in this area.

- **Learning as empowerment.** The functions of educational institutions and cultural expectations may inhibit active learning. The dominant learning culture is essentially passive, which means that many individuals are not encouraged to use their whole capacity. Research into how we can empower disadvantaged individuals and groups and promote their active engagement in learning is therefore important.

Developments in work related learning

While knowledge is still generated in educational institutions, it is also increasingly created and transformed in work places and is accessible through media and technology based environments. International comparisons might help us to understand more in the following areas:

- **Co-configured work, intelligent products: how to develop new ways of working.** A new landscape of work-related learning is emerging in the move towards co-configuration of customer-intelligent products and services (tailored to the needs of specific customers).

- **Modelling the emerging needs of learning in work-based settings.** There is a need for research evidence to contribute to the sustainable development of the workplace through new learning strategies relevant to modern working environments. Both individual workers and work teams need to be able to cope with the ever-growing demands of new skills, knowledge creation and innovative productivity initiatives.

- **Intra- and inter-organisational learning.** There is a need for research evidence to inform the learning and development of individuals and teams within and beyond their immediate workplace. New learning strategies are required that facilitate knowledge development, combination and transformation in and between different organisations and agencies: for example, inter-agency and multi-disciplinary working in health care and inter-company working in supply chains.

- **Motivation and commitment in early and late career**. There is a need to understand transitions to and from full-time work over a life-time, including transitions into retirement, and the role of diversity and intergenerational communication. There is also growing concern that fields crucial for the development of society, especially social and health care and education, are losing the competition for the best recruits. As the value structure of society changes and competition for the best people increases, research has to help address that challenge.

- **Designing work-related learning and assessment to facilitate life-long learning.** It is important to broaden and deepen the knowledge base of how to align processes of work-related learning and assessment with commitments to support life-long learning and active knowledge transformation.

These concerns and difficulties enable researchers in the TLRP and outside to pose research questions as dilemmas that relate to learning in working life:

- Can changing socio-political conditions support social partnerships and negotiated arrangements in a context of increasing market regulation?
- Can a focus upon educational and training (and qualifications) systems, provisions and targets co-exist with a desire for greater individualisation?
- Ever-expanding academic routes – do they lead to over-qualification or key competencies?

- Routinisation of service work – and enrichment of some segments – is this leading to a new polarisation of skills?
- Is it legitimate to regard relational skills as objects for working life preparation or is this too intrusive?
- In the context of emotional overload and burn-out, might learning be seen as an extra burden?
- Continuous education and learning is high on the political agenda, but despite some institutional drift in Europe, is this still principally a 'shadow system'?
- Individualisation of work – is motivation a scarce resource?
- Work as home and home as work: fussy boundaries?
- W(h)ither panoptic and intimate control of work behaviour and learning?
- The work force is increasingly multi-cultural, but is polarisation occurring here too?
- Self-designed careers as imperative and peril – learning to learn or learning helplessness?
- Learning as an integrative and differentiating force – and as an excluding mechanism?
- Identity and sense of belonging – desire for broad and narrow links to others?

Influencing European policy makers?

While the focus so far has been upon what can international comparisons can do for TLRP, it is perhaps important to consider whether TLRP should aspire to contribute to the shaping of future international, or at least European, research on teaching and learning. For example, TLRP's goals for dissemination and research impact suggest that one aim of collaboration (rather than just comparison) is to encourage national and European research policy makers to pay special attention to the role of learning in forming the European Research Area (and perhaps a European Knowledge Society). Comparative research can show how the latest research results could inform learning practices in a variety of settings and contexts. However, this could have unintended consequences – consider, for example, the relative success of UK children in the PISA studies – by focusing attention upon short-term results.

3. AGENCIES AND ORGANISATIONS IN POST-16 RESEARCH

Growing research interest and activity

A growing number of post-16 agencies and organisations in the UK commission and use research. A better knowledge of the research they use or reject and the ways in which they commission projects is crucial because much of the debate, concerns and mindset about educational research is still heavily dominated by schools. It is also crucial to develop this post-16 knowledge across the whole of the UK and not just England and to appreciate the differences in culture, ethos and tradition within Scotland, Northern Ireland and Wales.

It is a sign of the ESRC's commitment to raising the profile of post-16 research that two of the directors' team are post-16 specialists in further, adult and community education and work-based learning, both here and in Europe. The TLRP researchers and directors need to understand more about the work, cultures and aims of a number of organisations who might use and commission research, including the DfES (and especially its newly-created post-16 Standards Unit), Learning and Skills Development Agency, the National Institute of Adult and Community Education (NIACE) and the Learning and Skills Council (LSC).

In various ways, these organisations all identify important research questions, respond to government imperatives and initiatives, publicise research and help improve practice. For example, the DfES has a research centre on the wider benefits of learning and the National Research Centre for Adult Literacy and Numeracy. The latter has a budget of £8 million. The LSDA's Learning and Skills Research Centre has a number of important projects, including evaluations of the extent of mixed age teaching and learning in FE colleges and the impact and implications of research into thinking skills, informal learning and learning styles. The LSDA has previously produced research findings on strategies for improving retention and achievement in colleges, and commissioned work on the experiences of younger students in colleges. NIACE is renowned for its own research journal, Studies in the Education of Adults, a professional journal, 'Adults Learning' and also undertakes projects in the fields of family learning, motivation and community learning, amongst others.

Both LSDA and NIACE have a flourishing output of reports and publications and both agencies command high levels of respect with different groups of practitioners, institutional managers and policy makers at different levels. They are also highly committed to the TLRP. Meanwhile, the National Forum for Educational Research will identify research priorities and try to predict future challenges that researchers should address. This forum has a rather school-focused outlook although this will change with the secondment of Dr Andrew Morris from LSDA to the forum. In addition, the LSC and its 47 local councils commissions and uses research and many local councils have their own research managers, mainly focusing on labour market trends and needs. We need to know more about what research the LSCs use and value, and again, how academic research and the TLRP might relate to this research.

Two organisations that also use and produce research are the two post-16 inspectorates, ALI and OfSTED. Both produce evaluation data and OfSTED has also commissioned more wide ranging research in the past, not least the infamous 'Tooley' report which criticised the quality and usefulness of much educational research (Tooley and Darby, 1998). They also make pronouncements that may or may not draw on other research evidence, such as the need to attend to learning styles or to motivate learners more effectively. Inspectors therefore have a huge impact on ideas about best practice in teaching and learning and on how to improve it. For example, one FE college principal told me recently that "it doesn't matter what we think best practice is. It is what inspectors tell us it is". Her college has just finished a very expensive diagnostic trial inspection which will be used to get the low grades up in time for the real inspection in two years time or close down the curriculum areas where this is not possible. Full and part-time post-16 inspectors are therefore a key and overlooked audience for research into teaching and learning.

Finally, the new DfES post-16 Standards Unit, headed by Jane Williams who is currently principal of Wolverhampton College, is committed to identifying and disseminating best practice. Its consultation conference in October 2002 showed that ideas about best practice are heavily influenced by inspectors' pronouncements. Yet, if the unit and its staff (seconded from colleges, inspectorates and other parts of the post-16 sector, together with a large number of part-time consultants) are to have credibility with practitioners, it will need to engage with other research about policy and practice.

This summary of post-16 organisations shows that TLRP has to know a great deal about these post-16 bodies, and a large number of others, such as the QCA, awarding bodies and professional associations and teaching unions such as NATFHE, in order to improve post-16 teaching and learning. We also need to know more about how individuals and the organisation as a whole use research, what they read and why, what they respond to and why, but also the barriers these bodies face in engaging with a large body of research into adult learning. Knowing more about these aspects of using and communicating research, and the barriers to doing so, also illuminates other challenges facing the TLRP.

4. BARRIERS TO USING AND ENGAGING WITH RESEARCH

Different criteria and processes

Post-16 research priorities in TLRP illuminate some important comparisons with research carried out by other agencies. The criteria that the ESRC and the steering committee for the programme use to assess bids, and to carry out the difficult task of selecting from 46 bids of an extremely high quality, illuminate key differences. The criteria are on the TLRP website and it is interesting to note that the ESRC used them for the first round of short-listing and encouraged the 46 bidders to use them in improving their final bid. In doing this, we were responding to the research evidence by Black and William (amongst others) that good formative feedback and good knowledge of the assessment criteria, raises the quality of work produced!

Bidders to Phase 3 had to identify very clear research questions, rooted in a wider body of related research, and to show how their bid would contribute to theory, knowledge and better practice. They also had to show how their project would build capacity outside the team of professional researchers, how they would communicate and disseminate research and how their methodology would operationalise their questions. Crucially, they had to show how their project would add value to a programme with very strong aims for improving practice. Within the broad specification of the programme, they had free rein to identify the most pressing research questions or problems that they thought needed addressing but there was no doubt that they had to show commitment to being in a programme. The strong demand for good communication and dissemination plans has led to some serious and imaginative ideas for working locally, regionally and nationally with a diverse range of users and other audiences, including media and broadcasters. Lastly, the timescale of the TLRP enables a fairly long preparation period for bids and the possibility of large scale projects that last over a number of years, typically 3-4.

In contrast, other agencies have to set research agendas directly around specific policy imperatives, with an emphasis on producing practical outcomes and currently, on producing useable evidence in short timescales. Specifications are often constructed in detail, with tight deadlines for bidding and variable practice in how far the criteria for judging them are public.

Different pressures and priorities?

The two approaches create different pressures. First, while concerns to improve post-16 learning may be the same, academic researchers tend to seek and explain complexity while other agencies need quick answers to political imperatives. As the examples of research interests in post-16 learning in Phase 3 bids and existing phases 1 and 2 show,

TLRP relates well to many of the projects that DfES, LSDA and NIACE commission in areas like educational disadvantage, motivation, participation, barriers to learning etc. Yet, one type of research seeks quick practical answers while the other is likely to produce findings surrounded by caveats like 'it all depends' or 'you can't look at x without taking account of y, z and w'. Even on the same topic, researchers can appear to be talking past each other.

Second, it is clear from the DfES research conference last month that there is a vast amount of research going on, amongst diverse agencies and researchers (DfES, 2002a). Many of these are working outside the specialism of education, in areas such as economics, welfare and social policy. Not only is there a danger that projects and initiatives replicate each other, or, conversely, contradict each other but the task of mapping post-16 research is in itself a daunting one, before we get to the task of trying to make sense of it all. This was shown in Brown and Keep's review of vocational education research in the UK (Brown and Keep, 2000).

Third, there are political tensions if academic research findings seem to contradict policy goals and imperatives, or to suggest that they are the wrong ones or that they cannot be achieved. Such criticism can be read as unhelpful, negative or even destructive. Nevertheless, a constructive challenge was offered to academic researchers in 2000 by the then-Secretary of State for Education, David Blunkett, who acknowledged that sometimes education research might offer evidence that contradicted policy and that policy makers had to listen to that too. In a similar vein, there has to be space for researchers to think outrageously, or merely differently and controversially and to question assumptions on all sides.

Finally, traditional formats for academic research don't lend themselves to easy digestion of issues, ideas or findings, let alone into a bullet point list of '10 things to do on Monday morning'. There are also different views about whether it is academic researchers' job to write one page summaries of complex ideas or newspaper articles or to popularise their findings. These views, together with lack of time and lack of familiarity amongst non-academic audiences with academic language and formats are therefore real pressures with which all researchers interested in improving practice and policy have to engage.

5. CREATING A RESEARCH PROGRAMME

Possible features of a programme

The last part of this paper considers whether it might be worth probing in more depth what makes an ambitious body of work around a particular theme a '*programme*'. The brief summary in this paper of all the research currently being undertaken in relation to post-16 learning shows that there is a danger of duplication, reinventing the wheel and confusion about how to use the findings, as well as disagreement about what counts as worthwhile research or 'evidence' for better policy and practice. A programme such as TLRP might therefore be able to perform an important role in identifying what makes a programme as opposed to a linked set of projects or initiatives.

In the 1970s, Imre Lakatos articulated some features of 'progressive' or 'degenerating' scientific research programmes. They were applied to social science and education research by Phillips (1983) and the ideas are an interesting focus for discussing what a

programme is. However, it is important to state that these are not the formal views of the TLRP. We explore them here as a basis for further discussion, following a previous application in a policy-based analysis of the confusing array of projects, run by different researchers in various settings, that surrounded the controversial development of Advanced General National Vocational Qualifications between 1992 and 1998 (Ecclestone, 1998).

Lakatos argues that a programme can comprise disparate researchers in diverse places working around a theme or question. These researchers may not regard their work as contributing overtly to a programme but are, nevertheless, united by agreement about the key questions, principles and values that the programme is trying to address. An interesting and important development in the TLRP is that its director, Professor Andrew Pollard, presents a strong and overt moral purpose to unify the programme and to articulate its overriding principles and values (see Pollard, op cit).

Arising from agreement about questions, values and principles, researchers identify 'hard core' elements and principles that must be protected against dissent and attack from rival programmes. These might comprise public adherence to a particular theoretical perspective or a commitment to particular values. The hard core elements are surrounded by a belt of 'expendable' elements that can be debated and fought over, and if necessary, traded to preserve the hard core ones. The third feature of a programme is a willingness to seek out and engage constructively with dissent, rivalry and even hostility. It is important to note that the commitment in the TLRP directors' team to engage constructively with problems in education research generally, and with those raised directly by the programme. However, perhaps we do not go so far as to actively seek out dissent and hostility!

Lakatos argued that a programme is progressive when it displays these features and degenerates when it does not. For example, if education research becomes too compliant in turning practice into a mirror of policy goals, dissent becomes difficult. Yet, if research does not engage constructively with policy, then dissent and debate amongst researchers become an irrelevant minority interest. Similarly, if researchers from different contexts and organisations cannot debate opposing positions, values and interests, a programme becomes complacent and even self-serving.

Despite the problems in deciding what might count as hard core and expendable elements in a programme of research in post-16 education, Lakatos' ideas might form the basis for navigating through the complexities of the post-16 research field and its various organisations. At the very least, the notion of a 'programme' raises important questions about coherence, respect and mutual interests even if 'progressive' and 'degenerating' research might be two labels too far!

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