

Research to Raise Achievement

Professor Charles Desforges,
Programme Director of the Teaching
and Learning Research Programme,
explains how this initiative is
breaking new ground.

Welcome to the ESRC Teaching and Learning Research Programme.

Our objective is to support the teaching and learning community in improving the achievement of learners, across a wide range of contexts, by providing evidence from high quality research and ensuring it has impact on practice.

The Programme is the most co-ordinated investment made to date in studying effective learning and teaching in the UK. We are funding more than a dozen large-scale research projects and other related activities across a range of sectors and subjects in pursuit of our aims.

This is the first of a series of newsletters designed to keep you informed about the progress of our research.

Research which has Impact

Our work is based on the following principles and practices:

- building on the achievements of the teaching and research communities;
- recognising the complexities of teaching and learning and the pressures on teachers and trainers;
- collaborating between researchers and practitioners to generate excellent research;
- transforming research findings into practical action which has wide impact.

All our projects involve partnerships of researchers with teachers, trainers, managers, policy makers and others. These practitioner partners are playing active roles in the Programme's research, from design to analysis and transformation of research findings.

We are also building alliances with the wider teaching and learning community (through both existing networks and individual teachers and trainers) to take forward this collaborative approach.

How you can Participate

This Newsletter includes a series of short reports about the projects within the Programme which are most relevant to your sector, together with brief details on other research we are funding.

Please read this bulletin and, if appropriate, make it available to colleagues with an interest in our objectives. Let us know if you would like further copies sent to you.

On the inside you will find a freepost card. Please complete this and return it, so that we can keep you informed of progress with the Programme.

The Programme also wants to stimulate debate, with the objective of improving how we will deliver on our objectives. We would like to hear your views on this, both through your organisations and individually. You can write to, or e-mail, us at the address on the back.

Please contact individual projects at the addresses given inside this newsletter if you wish to engage more directly with them.

More details about the Programme are on our website at <http://www.ex.ac.uk/ESRC-TLRP/>

A Long Term Strategy

This ambitious Programme will take time, of course. Reliable results require careful examination of evidence across several sets of learners. We will, however, be reporting in future Newsletters on evidence as it emerges and on how our research is informing and supporting advances in practice.

Transforming Learning Cultures in Further Education

The research is based on a partnership between four universities and four further education (FE) sector colleges from the North, Midlands and South of England. 16 FE learning 'sites' will provide the focuses for an intensive examination of educational practice, learning and learning cultures by means of a four-year longitudinal study. The principal aims of the project are to deepen understanding of the complexities of learning; identify, implement and evaluate strategies for the improvement of learning opportunities; and enhance practitioners' capacity for enquiry into FE practice.

The partnership will involve close collaboration between FE- and university-based researchers and FE teachers, students and managers and will be integrated with existing communities of practice, with the object of strong impact on the practice of those involved.

The project is backed by an elaborate dissemination plan supported by the Further Education Development Agency (FEDA). Project activities and outcomes will be reported to practitioners, managers and policy-makers within and beyond the four selected FE colleges through local, regional and national workshops, seminars, conferences and publications.

Opportunities for participation will be extended to an expanded network of practitioners, managers and policy-makers. They will research their own practices using ideas developed within the project, and operationalise, experiment with and evaluate the themes identified by the project teams. Their insights will be fed back into the on-going work and thinking of the college-based project teams and the project as a whole.

Martin Bloomer (Exeter), Denis Gleeson (Warwick), Phil Hodgkinson (Leeds), David James (West of England) and Keith Postlethwaite (Exeter).

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Enhancing Teaching-Learning Environments in Undergraduate Courses

This project has been designed to support 25 departments, involved in undergraduate teaching, in thinking about new ways of encouraging high quality learning. The collaborative research will be underpinned by research into the quality of student learning and how it is influenced, not just by teaching and assessment, but by the whole teaching-learning environment. It is intended to focus on five contrasting subject areas: biological sciences, economics, engineering, history, and media and communications.

Research Post-Compu

The collaborating institutions will be clustered in three geographical areas - Edinburgh, Durham and Coventry. A range of courses or modules will be identified in each subject area and the researchers will work closely with each course team to analyse learning aims and outcomes in relation to their student intake. The focus of the study will be on the constructive alignment between aims and the whole teaching-learning environment - in other words, on the match between the course teams' intentions and students' everyday learning experiences.

Ways of improving provision will be explored with course teams, based on conceptual frameworks being developed through the research, and tailored to the specific subject areas. The effects of the changes introduced will be investigated and reviewed with the course-teams involved. Methods of managing change effectively will be systematically identified and widely discussed, prior to extensive dissemination through the ILT and the subject teaching centres.

Noel Entwistle, Dai Hounsell, (both Edinburgh), Erik Meyer (Durham), Liz Beaty (Coventry), Hilary Tait (Napier), Charles Anderson (Edinburgh), Katherine Day (Edinburgh) and Ray Land (Edinburgh).

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Learning During the First Three Years of Postgraduate Employment

There has hitherto been little direct evidence of what is learned in the early years after graduation, the best way to facilitate this learning, or how university knowledge is adapted to practical situations. This project will investigate three groups of graduates (accountants, engineers and nurses) through their first three years of full-time employment, examining the factors affecting their learning and approaches to improving the management and support of learners.

The accountants will be developing job competence and working for professional qualifications, the engineers will be working towards Chartered Engineer status and the nurses will be engaged mainly in post-qualification learning to develop their expertise.

Research partners include the Institute of Electrical Engineers, the Institute of Chartered Accountants in England and Wales, City University (Barts) and a number of employers of accountants, engineers and nurses.

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The outcome for user groups such as employers, professional bodies and government, will be evidence-based recommendations for the management and support of these learner groups, and advice for staff who carry that responsibility.

For teachers of professional/vocational education, the outcome will be much better evidence on the transition from higher education to work, on how and what HE acquired knowledge is used, and on what is learned in the workplace. Implications for the relevant HE programmes will be examined.

For researchers in teaching and learning, fuller and more theorised accounts of the research will be communicated, together with implications for employers, higher education and other sectors of education.

Michael Eraut (Sussex), Frederick Maillardet (Brighton), Carolyn Miller (Brighton) and Stephen Steadman (Sussex).

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The Effectiveness of Problem-Based Learning in Promoting Evidence-Based Practice

This project examines the proposition that problem-based learning (PBL) will assist students to achieve specific competencies and should be the method of choice for professional education. It is argued that it is particularly suitable to support the conditions that influence adult learning. There is growing interest in using PBL for the education of healthcare professionals, and a number of institutions have adopted forms of PBL for pre-registration education of doctors, nurses and midwives. However there is little evidence about its effectiveness.

A systematic review of the effectiveness of PBL will be carried out using the methodology developed by the international Cochrane/ Campbell collaborations. Potential members of the review group have been identified from the nursing education community worldwide and a declaration of intention lodged with the Cochrane and Campbell collaborations. An electronic scoping exercise is under way with a view to submitting the review protocol by the end of 2000.

The empirical study will comprise a simple two group randomized controlled trial of two under-graduate level post-registration nursing education programmes, using problem-based or current teaching methods.

Outcome measures include changes in learning styles, student performance on assessment, and assessment of practice.

The study will also assess student and teacher satisfaction, and describe the process of teaching/learning used in both the intervention and control groups.

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Improving Incentives to Learning in the Workplace

The Network is contributing to improved practice among a wide range of practitioners in workplace teaching and learning, including trainers, human resource professionals and trade unionists through a better understanding of the operation of incentives to learning. It is building research capacity and will contribute to improved learning outcomes.

The workplace is an important site of learning and access to learning opportunities, yet its primary purpose is the production of goods and services. To understand the incentives and barriers to learning at work, learning must be located in the broader context of the employment relationship and developments in work organisation which can support or undermine effective learning.

Through five research projects, the Network is collaborating with practitioners to develop an inter-disciplinary understanding of the processes and context of workplace learning. Two major themes run through the projects:

- the role of the broader regulatory framework of the employment relationship in supporting a learning environment (wages and conditions, contractual arrangements, the presence of employee voice, entitlements to learning, etc.);
- the concept of apprenticeship as a model of learning. Apprenticeship, understood as membership of a community of practice, recognises the significance of informal learning linked to job design, work organisation and workgroup dynamics, as well as the role of managers, supervisors and experienced practitioners in creating formal and informal learning opportunities.

A better understanding of learning practice at, for and through the workplace will enable the development of the concept of apprenticeship as a model of workplace teaching and learning.

Helen Rainbird (Northampton), Karen Evans (Surrey), Phil Hodgkinson (Leeds) and Lorna Unwin (Sheffield).

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Research in Post-Compulsory Education

Sir David Watson, Director of the University of Brighton and Chair of the Programme Steering Committee, argues that if research on teaching and learning in the sector is to have maximum impact it is essential for the work to be conducted by partnerships of teachers, researchers, managers and policy makers.

The core aim of the Teaching and Learning Research Programme is to promote research which will enhance learners' achievement in FE, HE, training and other sectors. This involves conducting excellent research and ensuring that the outputs make a positive impact in practice. It is no easy task.

Professional educators in the sector are under intense pressure from many, often conflicting directions. They are required to widen participation, achieve excellence for all, develop new modes of delivery and provide an ever increasing range of learning platforms relevant to the ceaselessly changing world of work. All this is happening in the context of the need to enhance research profiles while managing decreasing resources.

An Under-Researched Field

It is, perhaps, little wonder that teaching and learning is under-researched in the sector. A number of possible causes can be suggested. There is firstly the image of teaching and training as an art or craft, rather than an evidence-informed profession, which works against a research culture.

Another issue is the heterogeneity of the sector. Learning settings range from further education colleges through universities to commercial and professional training and third age learning. All have hitherto been separate fields, with little history of research collaboration.

Competing pressures for resources and short-term planning of training budgets further militate against investing in rigorous research about what works, what provides value for money, and what needs to be improved.

There is too an element of conservatism among teachers and trainers, in an environment where all the incentives favour continuing past practices.

The demand for higher return on effort in teaching is, however, raising awareness of the need for better understanding of the process of learning, and for the scientific evaluation and development of practice.

Partnerships Are Important

The TLRP Steering Committee believes that partnership between researchers and practitioners is the best way to generate new evidence which is relevant to the world of practice, convincing to teachers and trainers, and likely to lead to increased attainment by learners.

Effective long term collaboration also requires the partners to have compatible goals. Sustaining this is not easy given the external and internal pressures. It is therefore essential to make the benefits of collaboration clearly demonstrable to all parties.

The Way Forward

It is encouraging that the projects we have been able to fund involve the kind of partnerships which are needed. At the same time, we have concerns about the limited number and range of high quality bids we received from the post-compulsory sector in the first two rounds of competition.

In order to build research capacity we are putting in place a training programme for researchers in the field, starting initially with the successful projects and building out from there. We plan to be able to put a scheme into practice early in 2001.

There is moreover strong interest within various policy forums in the development and communication of research evidence on effective teaching and learning beyond formal education. We will be working to develop this agenda.

Given the burgeoning interest in evidence-informed teaching practice in education and other fields, we anticipate high quality developments in research on post-school education and training.

Strategic management of the Programme rests with a Steering Committee of practitioners, academics and other users chaired by Professor Sir David Watson, Director of the University of Brighton. See the Website for a full list of members.