

## **Fostering research into teaching and learning in a subject-based research environment**

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### **1. THE TEACHING RESEARCH AND DEVELOPMENT GROUP**

The University of Manchester/UMIST Teaching Research and Development Group (TRDG) can best be described as a ‘grassroots initiative’ which sprang in 1994 from the dissemination work of Enterprise in Higher Education (EHE) activity at both institutions. Academic staff who had undertaken or had become involved with Enterprise projects felt that the exchange of information and ideas that took place at meetings arranged as part of Enterprise in H.E. should be continued beyond the end of the projects. The new organisation which became TRDG would have five principal requirements.

#### **1.1 Structure**

The Group required a formal structure to enable it to bid for University funding. It would have a Chair, a Secretary and a steering committee (strategy group). As it was acknowledged that the best exchange and fertilisation of ideas would come from cross-disciplinary collaboration, care was taken to involve various faculties of the University and also UMIST, with its predominant science/technology/management base. The first Chair came from the Faculty of Arts and the current Chair from the Manchester School of Management at UMIST.

Since the establishment of Enterprise in H.E., a biennial ‘celebration’ of project work has been held. After the end of DfEE funding, the University and UMIST continued to support the activities as the ‘Enterprise Centre for Learning and Curriculum Innovation.’ However, starting with the 1998 event, there has been a seamless transition to a TRDG-organised Symposium, now held annually with invited keynote speakers from nationally influential bodies such as HEFCE, QAA or DfEE.

To run the Symposium and a regular monthly series of local events, TRDG secured a small annual budget of around £3000, with a later contribution from UMIST. Growth in TRDG has been steady, with 110 staff from 37 departments involved. TRDG activities thus impact on the teaching of most departments of the University and on the recently established UMIST Teaching and Learning Centre.

#### **1.2 Scholarship**

Many academic staff hold the view that the conflicting demands of the quinquennial HEFCE research assessment exercise and QAA subject review (with its emphasis on ‘outcomes’) severely inhibit ‘scholarship’, that pursuit of disciplinary learning which has built our universities and inspired our students (well, some of them) for several hundred years. Few would contend that assessment based on financial throughput and paper output adequately represents growth of subject knowledge. The recently coined phrase ‘the reflective practitioner’, to represent the academic who questions his or her own standards, is very much part of the scholar’s practice. Members saw in TRDG the

opportunity to pull together reflection on the teaching and learning process, research into that process and development of the discipline from the learning viewpoint.

### 1.3 Project Support

Although TRDG does not provide financial support for educational projects, it has a vital role in ensuring that teaching and learning development activities in the University and UMIST are encouraged. TRDG provides a responsive medium for dissemination of results, for identification of funding sources, for formation of cross-disciplinary project teams and mutual support of researchers and developers.

### 1.4 Action Research

Mr Cliff Allan, until recently Head of Teaching and Learning Policy at the Higher Education Funding Council for England (HEFCE), accepted an invitation to address the TRDG network on ways that the new funding method 'Teaching Quality Enhancement Fund' (TQEF) could foster research and scholarship on teaching and learning at institutional level.

As a consequence of this focus, the Group has succeeded in securing additional funding and enhanced profile within the University of Manchester and UMIST's learning and teaching strategies.

Currently, common perception appears to depict two contrasting modes of educational enquiry. The first, undertaken by practitioners, focuses largely on the processes of feedback and evaluation and is attacked for being amateurish and uninformed. The second, undertaken by educational researchers, is criticised for neglecting the needs and priorities of those serving at the grass roots. However, it may be more useful to accept that there are different forms of educational enquiry (Cowan and Weedon, 1999):

- *the seeking and use of feedback* is an informal process, frequently focused on specific elements within an overall programme, designed to obtain relevant information which may lead to changes of immediate benefit to the learners from whom it is obtained
- *formative evaluation* is a process in which the evaluators more rigorously attain information which is explicitly and immediately directed towards review and development, usually leading to changes which benefit the following cohort of students
- *action research* can be described as the conducting of investigations, incorporating a deeper appreciation of learning and the learning experience, which produces useful findings relevant however only to a particular situation
- *full educational research* is an investigative activity which produces and justifies generalised conclusions and recommendations which can validly be applied to other teaching and learning situations from those in which the original data were obtained.

Rather than seen as a progression, as each can address different needs, the above may be viewed as a spectrum of approaches. Much practitioner based educational development in higher education is essentially pragmatic in orientation, addressing local needs or responding to opportunity more than evidence, and as such is located within the first two parts of the spectrum.

The TRDG attempts in a small way to help interested colleagues whose educational enquiry, whilst valuable at local level, is limited in rigor and robustness, to move

further along the spectrum, in order to develop practitioner-based research which is both more rigorous and more accessible and generalisable within the academic community.

The accent in TRDG is on ‘action research’, which is characterised by:

- A process which brings research, innovation and evaluation together in one process, the researcher and the developer being the same person.
- A wish to improve practice, to act as well as research as part of the process.
- A participative style, the clients and informants are involved as partners, or at least active participants in the research process.
- A methodology which has both ‘action’ outcomes as well as ‘research’ outcomes.

The above statements imply that most of TRDG’s work is directly concerned with the academic welfare and learning of students. Where an initiative, such as PBL, student personal development, flexible learning, peer tutoring or any other novel teaching approach, is in progress in various departments, the views of students and their academic response are an essential part of the research process. In all cases, the member of staff carrying out the research or development project, evaluating results and publishing findings will also be fully responsible for the delivery of the course or module involved. Project officers are not involved, though student assistance may be obtained through the Enterprise centre. In this way, the communication link between the student and TRDG is as short as possible.

In the 1999-2000 academic year, TRDG focussed on four ‘special interest’ areas, in each of which a ‘special interest group’ of a few members met separately from and additionally to the main Group, reporting back at each TRDG meeting. The purpose of the ‘special interest groups’ was to drive forward topics where there was a clear and urgent need for research results to inform forthcoming teaching and learning developments. These topic areas are described below:

#### 1.4.1 *Problem based learning*

Problem based learning (PBL), which concentrates on the learner developing a ‘need to know’ has been operated for a number of years in the USA, Canada, Australia and certain European countries, most notably in the medical field. Research has indicated that academic results from PBL and conventional teaching compare favourably but that students from a PBL course showed better long-term recall of knowledge and were better communicators.

The division between HEFCE and QAA does nothing to foster teaching research and development outside Education faculties. Research assessment is confined to the discipline under scrutiny, discounting textbooks other than research monographs, while QAA benchmark statements, which are biased towards transferable skills and quite prescriptive for some subject areas, do not encourage novel teaching and learning approaches. However, under the ‘old’ subject review system, QAA assessors recently awarded maximum points to Manchester University’s Medical School, which had pioneered problem-based learning (PBL) within the UK. The work of the Medical School has featured strongly in TRDG and is leading to implementation of PBL in a number of other departments. Through TRDG, the Medical School has been encouraged to evaluate their innovation and disseminate results.

Local research has focused on the extent to which PBL can be applied across a range of disciplines, whether it is feasible to implement in an incremental way and what tutor roles are most effective. Through the TRDG a research report has been disseminated demonstrating how PBL can be applied in the Arts, Humanities and Social Science disciplines. Results of local studies have been shared that demonstrate a positive impact on students' attainment even where PBL has been introduced in a single module. 'Manchester' research has identified the potential for 'PBL tutor fatigue' arising from the intensity of the small-group learning. It is important to continually evaluate the effects of PBL, as resourcing of UK universities may not correspond to that found in other countries.

#### *1.4.2 Maximising Student Support*

This research area was concerned with means to encourage students to take a more active role in the learning environment, and techniques tested include peer tutoring and student personal development programmes. TRDG has enabled participants to collect evidence to suggest whether these methods improve student learning and attainment and/or save staff time. A joint project between the departments of Chemistry and Maths demonstrated a positive correlation between students' participation in a 'Peer-assisted Study Scheme (PASS)' and course grades. One colleague's MEd research project provided a 'front-end' evaluation of models of personal development planning. This helped to identify 'critical success factors' and informed the strategy of an institutional project in this area.

This TRDG research has contributed to lifelong learning through modules in a SEDA<sup>1</sup>-approved professional development course in student support and guidance.

#### *1.4.3 Facilitating On-line Learning*

This Group is convened by a researcher/practitioner in the field of on-line learning. An initial session was convened to explore with colleagues the key issues and research questions connected with the adoption of on-line learning techniques. Follow-up sessions were organised to meet identified needs. A series of case studies were presented by practitioners who had received project funding to introduce on-line features to courses and who had evaluated the staff and student response to this medium. A bibliography of key resources has been compiled and disseminated at the request of the Group. The convenor hosted a session disseminating her own research on the efficacy of different types of tutor interventions in on-line learning.

#### *1.4.4 Evaluating Educational Innovation*

In this research area, TRDG members have explored the extent to which their teaching practice is evidence-based. A series of sessions have been convened to demonstrate models of evaluation that can be applied to assess the impact of new initiatives. A representative from the Subject Centre for Sociology, Anthropology and Politics attended the Group to discuss ways the Centre could support and disseminate research.

### 1.5. Dissemination

Perhaps TRDG's most important function is to 'spread the word'. The Group holds a monthly lunchtime seminar delivered by a TRDG member. A syllabus for each semester is published and distributed at appropriate events or delivered through the

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<sup>1</sup> Staff and Educational Developer's Association

TRDG website <http://www.man.ac.uk/EHE/trdg/index.html>, or by an e-mailing list. In addition to the annual Symposium mentioned earlier, TRDG arranges occasional guest lectures and workshops.

As an example, the meeting programme for semester 2, academic year 1999/2000 was:

### **22<sup>nd</sup> March 2000 - IMPLEMENTING PROBLEM-BASED LEARNING**

A follow-up seminar considering the role of the facilitator in the learning process. Do they take a back seat? How much direction should they give to the process? Can a 'different' answer with a set syllabus and learning objectives to be satisfied? Is there any harm in giving students the learning objectives at the outset?

#### **Speakers:**

Dr Trudie Roberts, Medicine (University)

Melanie Cooper, School of Nursing, University of Bradford

### **12<sup>th</sup> April 2000 - EVALUATING EDUCATIONAL INNOVATIONS**

Exploring the role of discipline-based networks (example from Anthropology) and the Institute for Learning and Teaching (ILT) in promoting innovation in teaching strategies and encouraging evaluation and research.

#### **Speakers:**

Dr Sue Palmer, School of Education (University)

Dr David Mills, Social Anthropology (University)

### **4<sup>th</sup> May 2000 - FACILITATING ON-LINE LEARNING**

Addressing questions raised at TRDG seminars on facilitating on-line learning and suggesting effective approaches to promoting distance learning and a virtual learning community in which students use computer-mediated communication (CMC) to negotiate, present, discuss, clarify and develop their understanding.

**Speakers:** Joanna Teague and Kate Denning (School of Education)

### **18<sup>th</sup> May 2000 - MAXIMISING STUDENT SUPPORT PROCESSES**

An account of a DfEE project on embedding 'Personal Academic Development Programmes' to support students in taking a more active approach to managing their learning and development, including a major evaluation study and identification of factors critical to successful operation of schemes.

## **2. ISSUES**

A question which is frequently asked is 'What is the point of teaching research in a research-based university where demands on academic staff are already crippling?' TRDG's answer is that the severe demands make it vital that teaching is as efficient as possible, and hence research and evaluation of teaching and learning must be pursued. Where, for example, skills and personal development are taught separately from subject material, there is scope for enhanced efficiency through embedding.

The advent of the Institute for Learning and Teaching seemed to reinforce the need for TRDG as an organ for providing continuing professional development among academic staff, and a rapid rise in interest in and membership of TRDG was anticipated. However, the as yet low level of activity in ILT has encouraged few staff to join, and lack of CPD in learning and teaching does not represent a threat to staff, other than those seeking probation or promotion at a relatively low point on the scale.

TRDG remains essentially a 'local' organisation, but debate on the future is ongoing. Among the questions that TRDG is asking itself are:

Should TRDG members devote their time to publication of their results more widely in refereed journals, or is local dissemination more valuable to the academic community?

Should TRDG widen its scope by including members at universities within easy travelling range?

Should TRDG align its aims towards ILT, ESRC and other national agencies and develop aims which reflect, for example, funding routes or CPD?

Should TRDG's aims reflect the Universities' perceptions of its role? These are:

- A means of raising the profile of teaching and learning
- A vehicle to progress issues related to the Universities' teaching and learning strategy

What should the focus of TRDG be? Should it be closely allied to staff/educational development units? Should the 'educator' or 'practitioner' be in the driving seat? As TRDG and its network expand, what changes in structure, administration and dissemination processes will be needed?

#### Reference

Cowan, J and Weedon, E.M (1999) 'Action Research', *Research and Scholarship, University of the Highlands and Islands Project*, Conference, Oban, March 1999.