the New Academic

The Magazine of Teaching and Learning in Higher Education Autumn 1996 • Vol. 5 No. 3

The Art of Inspiring Students

Also: Teaching in Small Groups
Do Staff and Students See Eye to Eye?
Approaches to Staff Development

SEDA
The Staff and Educational Development Association
Gala House, 3 Raglan Road
Edgbaston, Birmingham B5 7RA
tel: 0121 440 5021
fax: 0121 440 5022
E-mail: office@seda.demon.co.uk
Home page:
http://www.seda.demon.co.uk

SEDA is a professional association committed to improving all aspects of learning, teaching and training in Higher Education through staff and educational development. SEDA provides and supports activities including: national and international support groups and networks; conferences; publications - practical papers, books, a refereed journal, a magazine for teachers in HE; support and accreditation for professional development; research; liaison with other organisations.

The New Academic is published three times a year, once in each academic term.

SUBSCRIPTIONS
£10 per year (3 issues) 1996
Reduced rates for multiple subscriptions to a single address.
Postage will be added to overseas mailings.
For details, contact Jill Brookes, Administrator, at SEDA Offices.

Information for Contributors

The Editor welcomes all material which might be of interest to teachers in higher education: the purpose of ***The New Academic*** is to promote good practice in teaching and better understanding of the processes involved in learning in all areas of higher education.

Audience is drawn from educators in all fields and disciplines. You should therefore not assume specialised knowledge, but write clear, straightforward accounts in plain English. When describing projects, please give concrete detail. Papers accepted for publication may be subject to editing. All material should be submitted in DOS file on disk (clearly labelled, please), together with 2 typewritten copies, on A4, double-spaced. Please send direct to Ivan Moore at Ulster University (address on p.1). Articles may also be submitted electronically, via e-mail to I.Moore@ulst.ac.uk. Submission of an article to ***The New Academic*** implies that it has not been published elsewhere **and** that it is not currently being considered for publication by any other editor or publisher.

Everyone involved with ***The New Academic*** works on it only part of the time, and so delays in dealing with submissions are inevitable. All papers will be reviewed by at least two people, and expert advice sought where appropriate. If you wish prompt acknowledgement, please enclose stamped addressed envelope. Return postage is essential if you wish your script or floppy disc to be returned if not accepted. To speed production, the Editor will expect to receive finalised material on floppy disc in text only, all formatting removed.

Articles

These should be between 800 and 2000 words. References should be kept to a minimum: where necessary, author's name should be given with date in brackets in text, for example Thatcher (1992). Reference list should be in alphabetical order, in standard academic style: e.g.

Thatcher, M. (1992). How I turned back the tide, *Journal of Marine Studies, 14,* 123-45.

Thatcher, M. (1992). **Lessons for Canute.** Portsmouth: Celebrity Press.

Illustrations

Photographs (black/white), drawings and diagrams may be used for illustration: copies of artwork should be submitted in the first instance, but author should be prepared to provide originals (clean camera ready copy) or suitable bromides for publication. Photos of authors are welcome.

Book reviews

All material to be sent to Book Reviews Editor, who will give guidance: 200 to 400 words. For presentation, please see Books section.

Conference reports

Reports on all conferences of relevance to teachers in higher education are welcome: 200 to 500 words, with concrete detail of interesting articles given. For style of presentation, please see Reports section.

News

Events, decisions, discoveries, people: items of interest to teachers in higher education should be sent to the Editor. Notional deadlines: Spring, 15 January; Summer, 14 April; Autumn, 15 September.

Acronyms used in The New Academic

- APEL Accreditation of Prior Experiential Learning
- BTEC Business and Technical Education Council
- CAT Credit Accumulation and Transfer
- FSEDA Fellow of SEDA
- HE Higher Education
- HEFC Higher Education Funding Council
- HEFCE Higher Education Funding Council of England
- HEQC Higher Education Quality Council
- HND Higher National Diploma
- NVQ National Vocational Qualification
- SRHE Society for Research in Higher Education
- THES Times Higher Education Supplement

The list will be added to as appropriate.

ISSN 0964 6353

Printed in England by Leicester Printers Ltd.

Vol.5, No.3 Autumn, 1996

the New Academic

Photographers: Allan Shedlock, Napier University (cover), Andrew Tweedie (pp. 5, 7)
Illustrations: Provided by Paul Walker (pp. 13–15)

Editor:
Dr Elizabeth Mapstone,
St Yse, Trethevy,
Tintagel, Cornwall, PL34 0BE.
tel: 01840-770220
fax: 01840-770518
e-mail: 101742.114@compuserve.com

Published by
SEDA,
The Staff and Educational
Development Association,
Gala House, 3 Raglan Road,
Edgbaston, Birmingham B5 7RA.
tel: 0121-440-5021
fax: 0121-440-5022
E-mail: office@seda.demon.co.uk
Home page:
http://www.seda.demon.co.uk

The Art of Teaching

Our theme in this Autumn issue is that centrally important topic – the art of teaching. What makes a good teacher? We all wish we could be sure we know. All the articles this time are relevant to aspects of this question.

Sally Brown, Co-Chair of SEDA, gives us the first of two articles on the *Art of Teaching Small Groups*. Those of you familiar with her style will not be surprised to find this first article chock full of practical advice on making group work a valuable experience for students - and of course, she does provide entertainment too. **Mark Lejk** returns with yet more practical suggestions for group work. Students must undoubtedly benefit from innovative teachers like these two authors.

The first contribution to our occasional *Art of Inspiring Students series* comes from **Paul Walker**. Readers may remember his interesting article on lecturing via the computer in the Autumn 1995 issue. We are pleased to welcome him back with an exciting new approach to the perception of physics - or history, or engineering, or business management, or mathematics, or psychology, or whatever your subject area is. Take a look at the literally dotty pictures on page 13 and then read his article, and see if you still see things the same way afterwards.

Talking of seeing, do staff and students see eye to eye? Especially, do they agree on what helps a student learn and what hinders? **Alex Harrop** and **Anna Douglas** decided to find out. The answer is, as you might expect, yes ... and no. But can you guess which bits are which?

Just in case you might be feeling near the end of term blues and wondering whether it all matters anyway, **John Radford** and **Leonard Holdstock** report on the readership survey. They found that everyone agrees, academic values are most important at university, whatever the pressures to provide cost-effective training for future needs of the market place. And **Elaine Crosthwaite** of the Higher Education Quality Council gives an overview of the different approaches in various universities to the need of their staff for development, training and appraisal. Whatever the pressures, there is no doubt that teachers in HE want to do a good job of teaching their students.

The evidence from contributors to *The New Academic* is that some HE teachers are very good indeed.

EDITORIAL CHANGES

Now that *The New Academic* is well established in its new format, I will be taking a less active role in seeking out good writing, and will concentrate on editing and producing each issue every term.

Elizabeth Mapstone

Ivan Moore, who has been Chair of the Editorial Committee for 2 years, will be overseeing selection of articles from now on. Would-be contributors should write to him (preferably on e-mail: I.Moore@ulster.ac.uk), or to any member of the Editorial Board. The Board is now smaller than it was, but is positive and proactive, and can call on the services of a Panel of Reviewers for quick decisions about submissions when needed. *The New Academic* is concerned to maintain and improve quality, and all papers published are subject to peer review

Forum has been popular and it has been necessary both to edit some submissions and to hold back others until the next issue. Shorter contributions are more likely to be included more quickly - but keep your contributions coming in!

Happy Teaching, and all good wishes to our readers until 1997.

The Art of Teaching Small Groups 1

Sally Brown tackles the thorny problem of how best to organise and enable learning in small groups, so as to make it a valuable, interactive experience. This is the first of a two part series.

When most people think about teaching in universities and colleges, the image that frequently comes to mind is of a large lecture theatre full of students listening intently (or not) to a lecturer in full spate of erudition. Actually, a large proportion of the most meaningful learning in Higher Education happens when students are working in small groups, in seminars, tutorials, practicals and labs. With increasing pressure on us all to deliver the curriculum in ever more efficient and effective ways, the ways in which we manage small group teaching come under close scrutiny. This article looks how we can do this to best effect, and the article which follows in the next issue will look in detail at some of the techniques that can be used in such contexts.

HOW BIG IS A SMALL GROUP?

It's difficult to be specific about what comprises a small group; in some contexts, the term could be used to describe three or four students working on a project together, on other occasions we talk about breaking up a lecture class of a couple of hundred into small groups of twenty five or so. This article will cover a range of small group activities, including seminars, tutorials and small group sessions within grander activities such as lectures or lab practicals.

The terminology of small group teaching is complex and ambiguous: what in some universities is called a seminar would be called a tutorial in others and sometimes seminars are used as scaled-down lectures in some institutions, whereas a lot of the activities described in this article and the next can often be found within lectures, where the tutor is aiming for high levels of participation. However, in these two articles I will make some broad generalisations about the kinds of learning occasions that different small group contexts can provide, and I crave the indulgence of those for whom the cap doesn't exactly fit!

SEMINARS AS EGO TRIPS

"I feel I've had a good seminar when I get into a really good argument with a student, so we can go at it hammer and tong for the full hour. I like to feel that we've really got down to brass tacks with the subject and I've been really intellectually stretched".

"And what about the other students in the room?"

"Oh, I'm not really worried about them. If they can't be bothered to join in, why should I care if they sit there like puddings?"

WHAT IS A SEMINAR?

These are frequently seen as student-centred occasions, which provide a forum for discussion between a tutor or facilitator and a group of students. Generally they are associated with a lecture programme, often providing an opportunity for students to tease out key issues by discussion or working through associated tasks.

WHAT KINDS OF ACTIVITIES TAKE PLACE IN SEMINARS?

These can include:

- participation in open discussions
- debating
- undertaking small group tasks
- working on problem sheets
- doing exercises
- applying theoretical material to real contexts in case studies
- students giving presentations on topics they have researched in advance of the session

WHAT IS A TUTORIAL?

Tutorials tend to be smaller scale operations and tend to be tutor-led, (although there are exceptions). Personal tutorials can be occasions where students have an opportunity to discuss aspects of their experiences as students outside the academic context, whereas academic tutorials tend to be opportunities for individual or very small group discussions with a tutor on, for example, individual research, project work or dissertation topics.

Typical activities in tutorials include:

- progress reviews
- one-to-one discussions
- research updates
- preparation and rehearsal for vivas
- troubleshooting and problem-solving

WHAT IS A PRACTICAL CLASS?

These provide opportunities for students to work in practical contexts like laboratories and studios, with supervision and support. Within these contexts, individual and group activities can be promoted.

Typical activities in practical classes might include many of the activities described above, as well as:

- experimental work,
- modelling,
- drawing and drafting,
- workshop tasks,
- working with data,
- using IT.

PROBLEMS WITH SMALL GROUPS

Some people find working with small groups more anxiety-provoking than lecturing, because of the necessity to work with students as individuals rather than in large groups. Sometimes there are worries about student behaviour, that they might become too challenging, disruptive or unfocussed. Otherwise, there are often anxieties about organisational issues, like how to run a number of parallel seminars, based on a single

lecture, with several tutors and research assistants working with different groups. In the next section, I will review some of the reasons for persevering nevertheless, and offer some practical suggestions on overcoming any difficulties.

WHY WORK IN SMALL GROUPS

Working in small groups can allow students to develop a range of interactive and collaborative skills which are often underused in individual study situations. These are precisely the kinds of skills required in employment and research, where graduates need to be able to:

- work in teams,
- listen to others' ideas sympathetically and critically,
- think creatively and originally,
- build on others' existing work,
- collaborate on projects,
- manage time and processes effectively,
- see projects through to a conclusion,
- cope with the difficulties of interaction.

Learning in groups allows students to develop some kind of cohesion with their peers, when classes are becoming so large as to preclude feelings of whole group identity, particularly under modular schemes where large cohorts of students come together from disparate directions to study together on a unit.

CHOOSING GROUP MEMBERSHIP

A number of choices exist about the selection of membership of groups for undertaking tasks. There are no rights or wrongs to these choices: basically we make informed decisions (or inspirational leaps) based on the context and the occasion.

GROUP SIZE

Pairs are good for small scale tasks, where students know each other well and where a stronger student can help a weaker one. Difficulties arise when one student is absent, or lazy or domineering.

Threes can work well, as communication is easy and work can often be shared out in manageable ways.However, threes can be difficult if two gang up on one and the group is still fairly vulnerable if one member goes AWOL or doesn't take an equal responsibility.

Fours can be very effective, having a good critical mass for sharing out large projects, with good opportunities for delegation and collaboration. Students with different abilities and qualities can play to their own strengths, giving each member a chance to contribute something and feel valued. Fours do have a tendency, however, to split into two pairs and tensions can arise.

Fives have many of the advantages of fours, and are my favoured group size for many tasks. There are sufficient people to provide a range of perspectives, but the group is not of unmanageable proportions. In a group this size, however, a determined slacker may be able to hide, unless suitable precautions are taken.

Sixes and sevens are workable as groups, but the larger the number, the greater the possibility of idlers loafing and shy violets being overshadowed by the more vociferous and pushy members of the group. I would suggest that groups of this size are only really viable if a really substantial task is to be undertaken and if considerable support and advice is given on project and team management.

A RECIPE FOR DISASTER

Take one disaffected tutor, stirred by news of impending institutional reorganisations, just back from discussions with the union where he has discovered he is six months service short of an attractive early-retirement package. Place in an overheated, badly-lit room with no windows.

Gradually allow to trickle in two or three students who are over-fond of their own voices but who have done no preparation for the seminar, five who don't really understand what seminars are for and so want to get a good set of notes out of the session, three whose English is not fluent and seven who have been partying the night before at Rockshots' "trebles for the price of singles" night.

Keep adding students until the room is uncomfortably full. Introduce a topic of stultifying boredom and stir up half-heartedly. Rapidly pour scorn on any efforts at originality, but allow a hub bub of whispered private conversations to rise to the surface. Turn up the heat and allow to simmer for an hour. Turn out into a cold corridor and sprinkle with dissatisfaction. Leave to cool until the following week.

GROUP MEMBERSHIP

Again, in the words of the Spanish proverb, 'Take what you want,' said God, 'take and Pay!' " (that is, you pays your money and you takes your choice).

Random groups: Many tutors believe this is the easiest and fairest way of selecting groups of students to work together. Using lottery systems or random number generators, students are allocated to the groups in which they are to work. problems can arise using this method from difficulties with group dynamics, particularly if they have been given no preparation on how to be a good team member. However, in industrial and commercial contexts, graduates are often required to work in allocated teams, so this maybe good preparation for real life!

Friendship groups: If you let students select themselves into their own groups, often strategic, high-flyers will quickly locate each other, then the middle ability ones will realise what is happening and form groups among themselves, then the last ones left will tend to be the less able and they will clump together through lack of any alternative. This method is effective if you want to be sure that marks will be distributed, but is not such a useful method of group selection if you want peers to support each other.

Hybrid groups: these are a compromise solution. You can permit students to select one other person they would like to work with, and then juggle pairs to ensure some balance of ability. This can work really well, but can be fraught with difficulty, for example, when pair choice is not coincident! It can also make for difficulties if you try to pair up two self-selected whizzos with two of the less-able students: resentment and conflict can ensue. When I have done this most effectively, I have paired middle ability pairs, which make up the bulk, with more able and less able pairs, using my best judgment on factors such as friendship and cooperative ability. You need to recognise, however, that the likely mark achieved by each group can be affected by your choices and may not be seen as fair, even though it works well in adding value to most students' learning experience.

Learning teams: if your aim is to build upon students prior experience and ability, it is possible to select group members with specific criteria in mind. You might suggest groups form themselves (or are formed by the tutor) into teams which include, for example, one with proven competence in numeracy, one with excellent communication skills, an IT specialist, someone fluent in a language other than English, someone with experience in the world of work, and so on. This provides the opportunity for team members to take account of each other's divergent abilities and to value them.

There may be problems with task allocation, however. Do you allocate the task of doing the drawings to the former draughtsperson or to the group member who is inexperienced in this kind of work? Do you give the IT tasks to the technophile or the technophobe? The team's marks will be better if the former choice is made, but there many be more learning gain if the novice undertakes the task with guidance from the specialist. Forming learning teams also relies on the students and tutors having a good knowledge of prior abilities and competence and may take some considerable organisation.

ORGANISING PARALLEL SESSIONS

Where several seminars or practical sessions are run in parallel, it can be quite difficult to ensure equivalence of experience, particularly if some of the session leaders are part-timers

THE "QUAKER BINGO" DEFINITION OF A SEMINAR

Eyes down, and the first one to break the silence wins the jackpot.

or post-graduate students with small teaching loads. In these cases, there needs to be a clear responsibility for someone to co-ordinate the sessions, and this task would normally fall to the person giving the lecture on which the sessions are based, or on the module, unit or course leader.

Briefings can usefully provided which:

- outline which areas of content are to be developed or explored in the small group work
- offer brief guidance notes for the teaching team members,
- suggest an outline structure for the session,
- describe typical activities for the session,
- provide problem sheets (and answer sheets!),
- provide troubleshooting guides for students in labs for occasions when things go wrong,
- clarify how assessment will be undertaken, when applicable,
- provide clear briefings and criteria for marking any such assessments,
- indicate who can be contacted if difficulties are experienced.

USING ASSESSMENT TO MAKE SMALL GROUPS WORK

To assess or not to assess is a key question in small group work. If we assess student participation in seminars, for example, it can encourage attendance, motivate participation and provide for more structured sessions. However, this can mean that seminars have to be more organised in advance and some feel that the assessment element encourages competitiveness and mitigates against the free-flowing, constructive, well-informed debates that are every seminar tutor's dream. Also, less motivated students who only attend because they are going to be assessed can be disruptive influences on the other participants.

If small group work is to be assessed, it is imperative that:

- students and tutors are really clear about what the assessment criteria really mean.
- these criteria are open, available and easy to understand by everyone.
- all students have an equal chance of success in the assessment process, so, for example, students who give presentations early on in the seminar series are not disadvantaged in comparison to those who present later.
- assessment is related to the small group event itself, and is not just a written task that can be undertaken whether the student was present at the session or not.
- provision is made for students who cannot attend for justifiable reasons.

If the decision is made to assess small group sessions, it is a good idea not to make success dependent on a single event. For example, in lab sessions, students could be assessed on different activities on different occasions. In studio classes, the critique could be incremental rather than a one-off event, and presentations in seminars could be organised with each student doing several short inputs over the term or semester, rather than having a single 'sudden death' opportunity to present a long paper once only.

Small group sessions lend themselves well to peer assessment, with opportunities for students to learn from the efforts and experiences of others and to give and receive feedback in a supportive environment (one hopes!). When peers are involved in assessing each other's presentations on agreed criteria, they learn a lot about what is required of them in terms of their own assessment, and their own performance tends to improve. And it is certainly less boring to be involved in the assessment process than to be sitting idly listening to a halting presentation on an unfamiliar and under-prepared topic, hoping not to be picked on to participate in the ensuing discussion, as is often the case in traditional seminars.

Small group teaching is an invaluable part of our repertoire of means of curriculum delivery. At its best, it can promote a relaxed, open learning environment, in which tutors can engage informally in an academic dialogue that is genuinely a two-way process (for the alternative, see the recipe in the adjacent box!) In setting up small group work, we need to be aware of the pitfalls, prepare for the worst, hope for the best and do it anyway!

USEFUL REFERENCES

Tom Bourner, V Martin and Phil Race (1993) **Workshops that work**, McGraw Hill, Maidenhead.

Sally Brown and Phil Race(1995) **Assess your own Teaching Quality**, Kogan Page London.

Sandra Griffiths and Pat Partington (1992) **Enabling Active Learning in Small Groups**, USDTU Sheffield.

David Jaques (1991) **Learning in Groups (2nd edition)**, Kogan Page, London.

Phil Race and Sally Brown (1993) **500 Tips for Tutors**, Kogan Page London.

Lin Thorley and Roy Gregory (1994) **Using Group-Based learning in Higher Education**, Kogan Page London.

Sally Brown *is an educational development Adviser at the University of Northumbria at Newcastle and is co-chair of SEDA, with responsibility for coordinating publications.*

The second part of this paper will appear in the next issue and will concentrate on the ways in which we can make such learning more active than is generally the case and will suggest a range of techniques that can be used to achieve this.

Learning Together

Mark Lejk returns to our magazine with yet more practical suggestions for teaching students in groups. Here he gives examples of several creative and effective techniques for helping students get to grips with complex ideas. Both students and other tutors who have tried these methods are enthusiastic.

Group-based learning is the subject of an extensive research literature and is now quite widespread in the teaching of many subjects in HE. Many tutors believe that learning in groups is good for students and, in some cases, it is a convenient way of sharing limited resources. One of the main benefits of group learning is that students use a whole range of inter-personal skills in group situations which generally adds interest, motivation and fun to the learning process.

I frequently use group work in my tutorials, but I also like to have variety. So sometimes students work in pairs, sometimes in larger groups, sometimes on their own, sometimes with their friends, sometimes not. It makes life interesting and the students look forward expectantly to the next tutorial wondering how they are going to work.

As a result, I like to have each tutorial or pair of tutorials as a self-contained package and I am therefore always attracted to short, simple and powerful teaching techniques which can be undertaken in one or two tutorial slots. I am going to write about three techniques which I have discovered through various means and which I have found to be very successful and enjoyable. They are all group-based.

Sample Question Stems

How would you use.....to.....?
What is a new example of.....?
Explain why.....
What do you think would happen if.....?
What is the difference between.....and.....?
How are.....and.....similar?
What is a possible solution to the problem of.....?
What conclusions can you draw about.....?
How does.....affect.....?
In your opinion, which is best,..... or .....? Why?
What are the strengths and weaknesses of.....?
Do you agree or disagree with this statement.....? support your answer.
How is.....related to..... that we studied earlier?

Box 1

RECIPROCAL QUESTIONING

I discovered this technique when reading some papers by Alison King and was struck by its simplicity. It is an excellent technique for revision or as a means of taking stock half way through a module. Students are provided with a set of 'question stems' from which they construct questions about their course of study. Some example 'question stems' are given in Box 1.

This type of question construction encourages critical thinking and, when students ask each other these questions, it allows more explanatory answers than the usual 'discussion' approach. In my subject, systems analysis and design, the technique is very relevant as it represents an approach which is useful for the systems analyst to adopt when interviewing system users. The questions promote meaningful discussion between students.

Home Study

Select THREE question stems from the list and make them into meaningful questions by applying them to any aspect(s) of the systems analysis course which have so far been covered. For at least ONE, prepare what you consider to be a satisfactory answer. You may also do so for the others but, if there are any topics which you find difficult, it is better that they form the basis of questions for which you would like an answer.

Class Session

1 Select a partner. For 15 minutes each, interview one another using the prepared questions. If neither of you can satisfactorily find an answer to something, make a note of it.
2 For 15 minutes, attempt to find answers to the unresolved questions by asking other class members. If unsuccessful, write the question on the whiteboard.
3 Hopefully, all unresolved questions will then be satisfied using a combination of whole class and tutor input.

Box 2

My colleague, Dave Deeks, converted the idea into an excellent tutorial by setting the tasks outlined in Box 2.

This technique, using questions as outlined in Box 2, could obviously be used in several, if not all, subject areas.

WORKING BACKWARDS

I got this idea from a colleague, Sue Stirk, who teaches Database Systems. As an aid to revision, Sue gave groups of students sets of answers to a test, each set being different. The students then had to construct the questions. The answers can be as complex as required, ranging from single words to diagrams. When the groups had finished devising the questions, they were passed to another group who

Modelling relationships

I would give four students A,B,C and D the following small scenarios to model (the entities are in capital letters):

Student A

A LECTURER *may* be a subject leader for *one or more* SUBJECTs and a SUBJECT *must have only one* LECTURER as subject leader.
A COURSE *must* contain *one or more* SUBJECTs and a SUBJECT *must* belong to *only one* COURSE.

Student B

A COURSE *must* have *one or more* STUDENTs and a STUDENT *must* be enrolled on *only one* COURSE.
A STUDENT *must* be studying *one or more* SUBJECTs and a SUBJECT *must* be studied by *one or more* STUDENTs.

Student C

A SUBJECT *must* have *one or more* ASSESSMENTs and an ASSESSMENT *must* belong to *only one* SUBJECT.
An ASSESSMENT *must* be undertaken by *one or more* STUDENTs and a STUDENT *must* undertake *one or more* ASSESSMENTs.

Student D

A COURSE *must* have *only one* LECTURER as course leader and a LECTURER *may* lead *only one* COURSE ***(i.e. lecturers don't have to be course leaders, but if they are, they lead only one course)***.
A STUDENT *must* have *only one* LECTURER as personal tutor and a LECTURER *may* be personal tutor to *one or more* STUDENTS

Box 3

then had to answer the questions. Their answers were then compared to the originals. This is really interesting because incorrect final answers may be due to the second group genuinely getting it wrong or the devised question being an incorrect deduction from the original answer.

Stirk's method can be modified in several ways. For example, in systems analysis, diagrams are frequently used to model narrative descriptions of systems. Groups of students could be given a diagrammatic model of a system and asked to produce a narrative description. Other groups then have to model this description to produce a diagram. The learning that goes on in situations like these is extremely powerful.

JIGSAW

This is the **classic** co-operative learning technique and has been around in various forms for a long time. It is well documented in the literature on co-operative learning. The way I use it is as follows. Take a group of four students. Break down a problem into four components, each of which overlap to some extent. Each student tackles one of these components on their own and explains their solution to the rest of the group. The group then debates and possibly improves the individual solutions. Finally, the group as a whole link these components together to produce an answer to the original problem (hence the term "jigsaw"). Groups can then present their solutions to the rest of the class. Simple but effective. Not only are students working on their own, they are also collaborating and peer tutoring.

In my subject, I use this technique to teach data modelling. This topic is all about finding out what things (the correct term is entity) should be stored in a system and the relationships between these entities. A data model is a diagrammatic representation of these relationships. A simple example should get the point across, and details can be found in Box 3.

Each student then draws a diagram of the relationships between the entities. You can see the exercises overlap to some extent. The entities STUDENT, LECTURER and COURSE are present in more than one scenario. The answers to the four component tasks are then put together to give an overall data model for the system. I realise that most readers will have little or no knowledge of systems analysis, but I hope the general point is made. I am sure this technique can be applied to several other disciplines.

CONCLUSION

I like these techniques because they can be made into excellent single or double tutorials and are complete in themselves. They are flexible and can be adapted to all sorts of disciplines and situations. The students enjoy them because they are different, good fun and require active involvement. Colleagues who have tried them are enthusiastic and are now devising their own variations.

At Sunderland, co-operative learning is here to stay!

FURTHER READING

Jaques D. (1991) **Learning in Groups**, London: Kogan Page.

Johnson D.W. & Johnson R.T. (1989) **Co-operation and Competition: Theory and Research**, Minneapolis, Minnesota: Interaction

King A. (1990) Enhancing Peer Interaction and Learning in the Classroom Through Reciprocal Questioning, *American Educational Research Journal*, 27(4), 664–687.

Palmer J. & Johnson J.T. (1989) Jigsaw in a college classroom: effect on student achievement and impact on student evaluations of teacher performance, *Journal of Social Studies Research*, 13(1), 34–37.

Mark Lejk *is a Teaching Fellow in the School of Computing & Information Systems at the University of Sunderland.*

Do Staff and Students See Eye to Eye?

What helps student learning? What hinders it? Do staff and students agree? *Alex Harrop* and *Anna Douglas* decided it was time to ask.

We teachers in HE have become accustomed over recent years to working with ever-increasing numbers of students and have made vigorous efforts to try and preserve the quality of students' learning experiences. Faced with large teaching groups all of us as academic staff have had to make decisions on how to allocate scarce resources for the maximum benefit of students. Some help in making these decisions has been available in user-friendly texts, like that of Gibbs (1992), but generally the decisions have been made on the basis of our own implicit views of the purpose of HE, from information from external sources (such as academic review, validation committees, external examiners) and from feedback from the students.

Student feedback may have been on an Institutional basis, it may have been specific to a subject or to a course of lectures, it may have been in answer to a questionnaire or through a staff-student committee. There are many potential student feedback channels, but one channel, that of individual discussion between student and teacher has, of late, become severely overloaded if not completely overwhelmed. Gone are the days of sitting chatting about the course with one or two students. Staff have no time and sometimes no space for such an activity. As a consequence, it seemed likely to us that academic staff in general may well be less informed about matters than previously and that we all may well be losing touch with the views of our own students.

There has been some related research in primary and secondary schools which has looked at the views of pupils and of their teachers, the results of which have been singularly depressing. In a number of such investigations, both groups have been asked for their views on the effectiveness of rewards and punishments in the classroom – and almost invariably the results have demonstrated no relationship. In a recent investigation (Harrop and Holmes, 1993), for example, teachers in a primary school showed very little ability to perceive how their pupils ranked sets of rewards and punishments for effectiveness. Amongst other differences, teachers ranked 'praise in front of other pupils and teachers' as the top reward from a list of 10, pupils ranked that reward as next to last. Girls ranked 'a special certificate' as first for effectiveness, boys ranked it as second, teachers ranked it as last.

The findings from schools are specific to the effectiveness of rewards and punishments and those topics are not strictly applicable to HE, since in general, the practices in schools are not carried forward into HE, despite the undoubted attraction to some members of staff of the idea of sending students who turn up late for lectures 'to see the Vice Chancellor for a reprimand', or even of 'a cuff or slap by your teacher in passing' (an item used in one of the earlier investigations in schools).

More central to HE than rewards and punishments is the notion of facilitating and inhibiting learning. Accordingly, this investigation used these aspects of learning.

Put simply, our aim was to see whether teaching staff and students saw eye to eye on which aspects of the learning environment facilitated or inhibited learning.

THE INVESTIGATION

The investigation was carried out with students and teaching staff from a Psychology degree programme. In the first stage, six members of staff and seventeen students were asked to complete an open ended questionnaire containing the following two questions:

1. What factors within the University environment do you feel help students to produce work to the best of their ability?

2. What factors within the University environment do you feel inhibit students from producing work to the best of their ability?

The responses to the questions were analysed independently by the two writers and from the analysis 12 helping factors and 11 inhibiting factors were identified as representing the main themes raised by the staff and students.

Two lists were drawn up, one for 'helping' and one for 'inhibiting' factors. Individually, staff and students were presented with the two lists, half of each group being given the helping list first and half being given the inhibiting list first, and asked to rank each one from most helpful to effective study to least helpful and from most inhibiting to effective study to least inhibiting, respectively. Fourteen staff members were asked by internal mail to complete the rankings and 8 returned completed lists. Sixty four students were approached during randomly selected lectures and 59 returned completed lists.

THE RESULTS

The results showed a high measure of agreement between staff and the students for both helping and *inhibiting* factors with the low

TABLE 1: MEAN RANKINGS FOR HELPING FACTORS

Factors	Student	Staff
Clear explanation of what is expected in a task,	1	1
Clear, structured delivery of lectures.	2	2
Constructive, useful feedback from tutors on coursework.	3	3
Adequate numbers of relevant books, journals etc., available in library.	4	5
Well spaced coursework deadlines.	5	11.5
Well planned and spaced timetable.	6	9
Interest and enthusiasm of academic staff in subject.	7	4
Availability of academic staff for individual discussion and help.	8	6
Organised small group discussions, i.e., tutorials or seminars.	9	7
Helpful non-teaching staff, i.e., in library or Home School.	10	10
Easy access to computer facilities.	11	11.5
Appropriate areas in library for individual and group study.	12	8

numbers indicating the factors regarded as most important.

A scrutiny of table 1 shows considerable agreement between staff and students' rankings, particularly on the factors rated most highly. Notable among the disagreements, in order of magnitude, are 'well spaced course deadlines', which were thought to be much more important by the students than by the staff, 'appropriate areas in library for individual and group study', thought more important by staff than by students, 'well planned and spaced timetable', thought more important by students than by staff and 'interest and enthusiasm of academic staff in subject', rated more highly by staff than students.

Table 2 shows higher agreement than table 1 with only minor differences between the two sets of rankings.

It is difficult to generalise from the rankings but it does appear, despite the relatively high agreements obtained, that the students are more concerned than the staff about the structural features of course delivery, i.e., coursework deadlines and timetable planning.

DISCUSSION

Our aim was to see whether teaching staff and students were in agreement on the way in which features of the learning environment facilitated or inhibited learning. Bearing in mind the results of previous investigations undertaken in schools on rewards and punishments, the we were rather surprised to find such strong levels of agreement between the staff and the students. The psychology staff in turn were naturally reassured by the agreement although one can still speculate about the extent to which those staff who did not complete the questionnaire might have altered the results had they taken part. The differences that did appear were felt to be very valuable, both in helping staff appreciate students' perceived needs and for suggesting possible courses of action.

More generally, the technique used in the investigation illustrates one way in which large numbers of students can express their views on the learning environment and provide structured feedback to academic members of staff. It is an easy technique to use and it provides no great problems of data collection, presentation and interpretation. It involves a minimum of disruption to both students and members of staff. Moreover, the technique can be used to compare the views of students and members of staff on a variety of aspects of the learning environment. The following examples might serve to generate further ideas:

- What do you think are the most important criteria used by staff in marking students' coursework essays?
- What do you see as the most important features of a productive seminar session?
- What do you consider to be the most useful functions of a personal tutor?

A comparison of the views of students and staff on questions like these should yield potentially valuable feedback to staff which could be used for a variety of purposes, not least of which involves opening a dialogue with students to discuss the results. Judging from our own experience, obtaining data to compare the views of staff and students is well worth the effort and undertaking an exercise like that described here is time well spent.

Dr Harrop *is Director of the School of Human Sciences, at Liverpool, John Moores University.*

Anna Douglas *is a student, currently studying for a MSc in occupational Psychology.*

REFERENCES

Gibbs, G. (1992) **Improving the quality of student learning**, Bristol, Technical and Educational Services Ltd.

Harrop, A. & Holmes, M. (1993) Teachers' perceptions of their pupils' views on rewards and punishments, *Pastoral Care*. March, 30–35.

TABLE 2: MEAN RANKINGS FOR INHIBITING FACTORS

Factors	Student	Staff
Unclear or non-existent explanations of requirements of a task.	1	1
Uninspring lectures.	2	2
Unapproachable, unhelpful lecturers.	3.5	3
Lack of relevant numbers of books, journals, in library.	3.5	5
Lack of useful feedback on completed coursework and exams.	5	4
Overcrowded, badly planned timetables.	6	8
Difficulty in finding lecturers for individual help/discussion.	7	7
Lack of organised small group, discussions, i.e., tutorials, seminars.	8	6
Unreliable library facilities, i.e., photocopiers, lion system.	9	9
Noisy library study areas.	10	10
Lack of computer facilities.	11	11

Academic Values Rule

John Radford and *Leonard Holdstock* report on the *New Academic* Readership Survey 1996.

Higher Education in the UK is, as everyone knows, in a state of turmoil. Currently the Dearing committee is hard at work trying to find solutions to the manifold problems, and its report may well shape the future for several decades. All sorts of people will have a say, yet there is surprisingly little attempt to find out what the actual consumers and providers of HE think and want: students, their families, and academic staff. We have been carrying out a series of studies to try to answer such questions. This survey was planned as another in this series. It seemed to us that the readers of *New Academic* might be an important voice which ought to be heard.

The costs of production and distribution of a questionnaire were borne by the University of East London. All the work involved (design, production, analysis, write-up and clerical work) was done by the present authors, who are both retired and unpaid. There was no cost to *New Academic* or SEDA.

Unfortunately most readers were either uninterested or unable to help with this research: 3500 questionnaires were mailed out with the journal; 130 completed questionnaires were returned; 3.7%. We are most grateful to those who did take the trouble.

This is an extremely disappointing return. The actual results are nevertheless of interest. Statistical techniques are powerfull and enable small samples to have great value if they are not pressed too hard and are supported by other results. In this case, comparisons with our other studies, in particular one of academic psychologists in four universities, show a fairly coherent picture emerging. In our experience of several surveys of this kind, the data converge rapidly after about 70 responses or so, so that the hoped for return of at least 10% would probably not have altered the results very much. This is particularly true if, in opinion items, responses are presented not as mean ratings, but as the ranks of those mean ratings.

THE RESULTS

The 130 respondents comprised 77 male and 53 female, average age 47, with half between 45 and 54. There were no major differences between male and female responses. This agrees with several other studies of academic opinion. All but three were educated to graduate level and, surprisingly 47% reported a qualification in teaching. All but three were employed in HE; 27% predominantly in teaching, 37% in teaching plus research, 6% in research, and 18% in administration. Quality of working life was rated highest for personal satisfaction, and also fairly high for stress and good working conditions; but low for financial rewards and prospects for the future.

PURPOSE OF UNIVERSITIES

The purposes of universities have been debated for centuries, with ever changing views. Those of today's academics seem fairly clear. Factor analysis shows three major elements. The largest (27.5% of the total variance), and most important in the opinion of respondents, may be called '*academic*': it includes learning and scholarship, teaching students, research, and challenging accepted views, in that order of importance. A factor that may be called '*occupational*' (19.3% of variance) includes preparing students for a career, meeting the needs of employers, and implementing government policy, the first being rated considerably more important than the second, while the last receives effectively no support. A third factor (13.5% of variance) is rated of little importance: it includes promoting religious or moral or general cultural values, and service to the wider community. All this agrees very closely with the views of the academic psychologists, and almost as closely with those of students and parents.

Almost half (49%) of respondents thought the present intake of 30% about right, 25% thought it too many and 26% to few. in contrast the psychologists generally agreed it was too high, possibly because psychology is one of the subjects to have experienced a marked increase with corresponding work load.

MEETING DEMAND

In meeting increased demand, more public funding was thought to be the most desirable route, but not very practical. In contrast more students living at home (which is in fact a currently reported tendency) was thought practical but less desirable. The best options on both counts were thought to be new teaching methods, more part-time students, and expansion of Further Education. A greater contribution by students was rated fairly low for both, while there was little or no support on either count for higher student-staff ratios, shorter degree courses or encouraging private universities.

As for the structure of first degrees, there is quite strong support for the honours degree, and associated with this although less strongly supported are the traditional degree class system and a 'Finals' examination; this factor accounts for 34.8% of the variance. A second factor (15.9% of variance) includes a two semester year and modular organisation of courses, which are valued rather less highly than the older system. There is little support for a cafeteria system with free student choice of modules, or for a three semester year.

IMPROVING WORK

Respondents rated various possible ways of improving academic work. The most important single item was better library / learning resources; and associated with this in a factor accounting for 16.2% of the variance, but rated less highly, were physical resources, working environment and information technology.

The largest factor (28.8% of variance) included in-service and pre-service training, information on teaching methods, and a formal accreditation system. The first of these was rated most highly and there was little support for the last; nor is there for teaching assistance. Administrative and secretarial / clerical assistance formed a third factor (12.3% of variance), and were rated second and third after library. Psychologists agreed closely with these priorities.

GAIN FOR STUDENTS

Lastly there was a question about what students might gain from HE, and for which universities ought to make provision. The most important single item is ability to think clearly, and this compares with numerous other studies: our psychologists put 'higher level intellectual skills' at the top, and very extensive American studies invariably result in 'critical thinking' being rated the most important outcome of HE.

In the present case, it is associated with subject knowledge and discipline methodology in a factor accounting for 12.5% of the variance. A larger factor (13.0% of variance) is related to employment: practical, work related skills, a useful qualification, and social skills, the first of these being rated considerably more highly than the other two.

The largest factor (31.0% of variance) is concerned with personal development: learning to learn, communication skills, learning to work with others, personal maturity, wider perspectives, and leadership qualities; in that order of importance. The psychology sample pretty much agrees with this.

Our studies of students and parents suggest a similar, perhaps simpler picture: what they primarily want from HE is to gain a useful

qualification, and secondly in doing so to 'grow up' in more general ways.

CONCLUSIONS

These results suggest overall, as might be expected, a teaching force which is not young (due no doubt to length of training plus restricted recruitment of late), which is facing up to new demands, and is prepared to adopt new approaches in order to do their job more economically, but which still favours many of the features of 'traditional' British education.

What is thought of as the tradition is in fact relatively recent, many of its features, such as government funding, and research as a prime function of universities, being largely creations of the present century. The first English PhDs, as a qualification in research, were awarded only in 1918. The model favoured by our respondents seems in fact to resemble that of the University Grants Committee, whose heyday was from about 1920 to 1970, and which featured adequate central funding but without close central control.

At present, as is generally recognised, funding is decreasing and control increasing, though our respondents are clear that universities do not exist to catry out government policy. Government is the preferred source of funding, but this is, probably realistically, not seen as likely to match demand.

Respondents seem happy with the present size of intake, although very little rationale has been advanced for it; and forecasts suggest a further increased demand in the next decade or two. The rapid expansion of numbers has been accompanied by two features of the wide-access American system, modules and semesters, which are accepted if perhaps reluctantly. But there is little support for several other features which have enabled the American system to achieve its successes: a free student choice of modules (though this has also been criticized in the USA on grounds of expense and lack of focus for studies), greater financial contribution by students, teaching assistance (assistants, and private universities. It is perhaps forgotten that the most prestigious American institutions, the Harvards and Yales, are independent, as Oxford and Cambridge were until the 1920s.

As was explained, this was a small sample, one danger of which is that the views of a 'silent majority', or even minority may not be detected, but the latter, at least, is true in any survey which is less than 100%; a danger which will be diminished if any reader of *New Academic* who feels misrepresented will write to the journal.

Whatever the outcome of the Dearing enquiry, it is desirable that it be informed by empirical knowledge of what the participants in HE actually think and desire. We hope that this study, with others, will make some contribution to that knowledge.

John Radford *is Emeritus Professor of Psychology at the University of East London. He and* **Leonard Holdstock**, *also retired from East London, have for some hme been researching into higher education, high ability, and gender differences in education and occupation.*

Small Advertisements

Small ads may be inserted for as little as 30p per word (minimum £5). Just send copy and prepayment direct to the SEDA Office, 3 Raglan Road, Birmingham B5 7RA. Cheques should be made payable to *SEDA*. Telephone numbers count as 2 words.

18-19 November 1996
Reading Efficiency
Contact: Centre for Higher Education Studies, Institute of Education, 59 Gordon Square, London, WC1H 0NT.
Bill Bailey (Tutor), tel: 01926 842681
Janet Harding (Secretary), Tel: 0171 612 6362
Fax: 0171 612 6366
Fee £195

20-21 November 1996
Developing and Managing Distance and Flexible Learning Courses
Contact: Centre for Higher Education Studies, Institute of Education, 59 Gordon Square, London, WC1H 0NT.
Bernadette Robinson (Tutor), tel: 0115 947 3072
Janet Harding (Secretary), Tel: 0171 612 6362
Fax: 0171 612 6366
Fee £195

6-7 February 1997
Problem-Based Learning - Why and How?
Contact: Centre for Higher Education Studies, Institute of Education, 59 Gordon Square, London, WC1H 0NT.
Charles Engel (Tutor), tel: 0171 612 6386
Janet Harding (Secretary), Tel: 0171 612 6362
Fax: 0171 612 6366
Fee £195

26-28 February 1997
Small Group Teaching
Contact: Centre for Higher Education Studies, Institute of Education, 59 Gordon Square, London, WC1H 0NT.
Roy Cox (Tutor), tel: 0171 612 6383
Janet Harding (Secretary), Tel: 0171 612 6362
Fax: 0171 612 6366
Fee £295

7 March 1997
Developing High Quality Teaching and Learning in Departments
Contact: Centre for Higher Education Studies, Institute of Education, 59 Gordon Square, London, WC1H 0NT.
Roy Cox (Tutor), tel: 0171 612 6383
Janet Harding (Secretary), Tel: 0171 612 6362
Fax: 0171 612 6366
Fee £110

Please mention *The New Academic* when replying to any of our advertisements.

For details about insertion, please phone SEDA office, 0121 440 5021

12-14 March 1997
Improving Lecturing
Contact: Centre for Higher Education Studies, Institute of Education, 59 Gordon Square, London, WC1H 0NT.
Roy Cox (Tutor), tel: 0171 612 6383
Janet Harding (Secretary), Tel: 0171 612 6362
Fax: 0171 612 6366
Fee £295

17-19 March 1997
Assessing Students
Contact: Centre for Higher Education Studies, Institute of Education, 59 Gordon Square, London, WC1H 0NT.
Roy Cox (Tutor), tel: 0171 612 6383
Janet Harding (Secretary), Tel: 0171 612 6362
Fax: 0171 612 6366
Fee £295

Taking Students by Surprise

Some ideas on the Art of Inspiring Students

Paul Walker contibutes the first in an occasional series on *The Art of Inspiring Students* – occasional because inspiring students is a skill not every teacher in HE has acquired.
We on *The New Academic* were very excited when Paul Walker's paper appeared on our desks. He is a physicist, and wrote this paper as a teacher of physics. But his ideas will appeal to teachers of a wide variety of subjects, for he has discovered an enthralling way of showing his students that how you approach a subject – any subject – can have a bearing on how you understand and interpret it.

I have been teaching physics for more years than I care to think about, and over that time I have come reluctantly to the conclusion that physics has an image problem. The stereotypical physicist is widely characterised as sartorially challenged and socially inept, but terribly terribly clever. Unfortunately what he (rarely she) is clever about is extremely complex and well beyond the reach of mere mortals. The very word 'physics' is often enough to strike fear into the heart of the bravest of souls.

Scientists talk a lot about 'doing experiments'. Try this experiment. Next time you go to a party or other informal social function and people ask you what you do for a living, try telling them you are a physicist. There are various ways people respond to this, varying from embarrassed foot-shuffling with mutterings of "Oh, I never was very good at that at school..." or a flash of fear across the face and the immediate recognition of a long-lost friend in the far corner of the room or occasionally a tight smile and a further question about what kind of physics you do. Do not be misled by this last response – it is mere politeness and if you are foolish enough to start waxing lyrical about the latest developments in your particular specialty you will (if you have any sensitivity about you) soon notice the inquirer glaze over with a faraway look in their eye as a state of severe boredom sets in.

Every time I tell this story to people from other disciplines and professions, they say 'Oh yes! But it's just the same for mathematicians/accountants/economists/<insert your profession here>!' So as you read on, when I say 'physics' just substitute your discipline. Much of what I am talking about applies very well to subject areas other than physics.

The problem I'm concerned with here is that this reputation physics has as a difficult subject is also prevalent amongst students in HE, even (or perhaps especially) those actually studying it. Their lecturers and tutors often find it hard to understand why many students find the subject difficult and generally the most considered response to this situation is the lecturer exhorting students to understand the physics rather than trying to 'remember the formula'. Needless to say, the students generally don't find this advice very useful and, of those that survive the first year, most decide from then on to have as little to do with the subject as possible.

For several years, I have been attempting to address this problem in a small way by conducting an 'inspirational' out-of-hours seminar program with first-year physics students at the University of Sydney. I call it 'Learning Physics Inside Out, Upside Down and Back to Front' (the title is a double entendre – when you see the ambiguity, you get the point of the seminar). The core of the program is a single long seminar, which is designed to have the students stand back and look afresh at their approaches to learning physics, to consider wider issues of epistemology and cognition (but in everyday terms rather than jargon) and hopefully to develop crucial insights that will help them to diversify their approach to learning physics, and hopefully other subjects as well. Just in case this all sounds very earnest and worthy, the seminar is very informal and relies a great deal on student interaction and spontaneous participation.

Students in their evaluation feedback are overwhelmingly enthusiastic about the program, as indeed am I – but when asked by colleagues "Yes, but what do you actually do in this seminar?" I have difficulty describing the program in a way that gives any insight into my methods or intentions. This article is an attempt to do just that, by putting you, the reader, in the position of 'fly on the wall' at a typical seminar. As this hypothetical 'fly' you have the gift of telepathy, and can listen also to my thoughts before and during the seminar.

A TYPICAL SEMINAR

We have between 20 and 50 mainly first-year students in a seminar room on a weekday evening or a Saturday morning, responding to a somewhat mysterious poster invitation to spend the next three hours or so discovering how they might learn physics better. For many of them, studying physics is a necessary evil imposed by their choice of major or professional training. Many of them will respond to a lecturer who is attempting to have them understand some principle of physics with a plaintive "Yes, but what formula do I use?" If we attempt to tell students who see learning as the intake and retention of information about a fundamentally different basis for learning, it will almost certainly be heard by them as simply more information to take in and remember. We have to take a very different approach to the

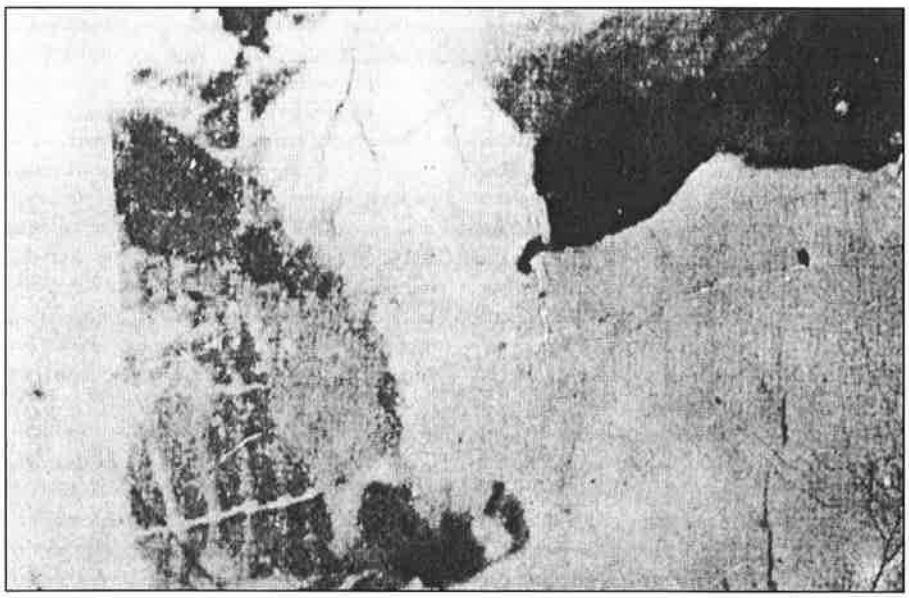
conversation, almost like sneaking up on it and taking it by surprise. You'll see what I mean by this in a little while.

I introduce myself and ask that each student do likewise, giving their name and briefly say what they are here for. This is more important than it seems at first glance – it is not merely social lubricant. It is a clear signal to the students that this seminar will not be like watching television or attending a traditional lecture. I conduct the seminar in the spirit of a Socratic dialogue, and it's clear from their later comments that they find it very unusual that their input is considered to be of any importance. I find it valuable to hear what the students say at this opening stage of the seminar, even if it is simply "I'm here to see if there are some ways I can learn physics better".

I start off the discussion by saying that physics has a reputation for being a difficult subject. This assertion generally meets with grunts and nods of agreement. (I invite them also to try telling people at a party that they are physicists, or that they just love physics...). But now I ask "What is it that makes it difficult? That is, what is it that you find hard about physics?". I'm listening especially for the kind of answer that says what students really think, rather than the kind of answer where a student is telling me some version of what she or he thinks I want to hear, or what's socially acceptable amongst their peers. Usually a bit of humour in the dialogue helps to create a relaxed atmosphere to encourage authentic reflection and responses based in everyday student experience. I write a word or two on the blackboard capturing each of their responses – and acknowledge each contribution as equally valid. The resulting list of points looks pretty similar every time I run the seminar. It usually looks something like this.

"Physics is difficult because it :
- is complicated"
- has many equations to remember"
- is something I don't have much prior knowledge about"
- is abstract and difficult to relate to 'real life'"
- is something we have to do but would rather not"
- is boring and so are the lecturers"
- requires special (and mysterious) abilities"

I ask them to consider the possibility that the difficulty that they experience with physics may be due to quite opposite reasons to those given. I suggest that they may already 'know' a lot of the physics they will come across in their courses (at least the early ones). I can demonstrate this by throwing a tennis ball across the room to someone who can catch it.



What are these? And what do they have to do with learning in HE?

The motion of that ball is rather more complex than anything they have so far done in their physics course, and yet they can effectively predict the trajectory of the ball and (for some at least) very accurately (i.e. they catch it!).

In similar spirit, I put forward the proposition that physics is difficult not because it is complicated but rather because it is simple; This invariably raises dissenting murmurs, but I ask them (and you?) to think about it – we are used to thinking and acting in complicated ways (like navigating human relationships for example!) and the stark simplicity and rigour of a subject like physics is quite foreign to most of us. Likewise the abstractness and apparent irrelevance of physics is at least questionable. As for the lecture(r)s being boring, well they may have a point there – but we can come back to that. It's the 'ability'

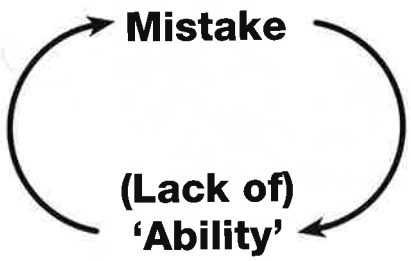
issue that's very worthwhile exploring with them and provides an opportunity for some important insights.

STUDENT 'ABILITY'

If I listen to informal, spontaneous conversations amongst my colleagues in the staff common room* or amongst students in their gathering places, the notion of ability pervades the discussion, often implicitly. Amongst staff, some students are tagged as 'bright', 'able' or 'good students', others as 'struggling' or 'mediocre' – no-one seems to use the word 'intelligence' anymore, but that is essentially what is meant. But it is worth asking how a student's approach might be related to this notion – it is especially worth having the discussion with the students themselves. What emerges from this dialogue is in some ways not surprising, but has the potential to free some students from the grip of an essentially imaginary constraint.

If I consider a hypothetical student who we agree does have the relevant ability, how real is this supposed ability for him or her? The answer emerges as almost not at all – none of us wakes up in the morning and says to ourselves "Oh, I think I'll use my intelligence today!". While the notion of ability might be fine for characterising a student from an observer's point of view, it is almost irrelevant to the able person themselves when they are in action. This point could apply equally to sporting ability, ability to draw etc. and this analogy is very useful in the seminar itself. I use a simple ball-catching exercise with someone who's a good catcher to illustrate this point. In some of the seminars, I have given the students a few minutes to draw a picture of a person (preferably one in the room) and then used the resulting drawings to underpin points discussed below about ability, information and concepts. In neither case is the person who can successfully perform the task aware of bringing into play any special 'ability' – they just do what's in front of them.

But how about the student that we consider less able, who has less of the relevant ability? Again let's consider it from the point of view of the student themselves. If I am a student attempting a set exercise or a problem and am not succeeding because I've made a mistake somewhere, how I interpret the significance of such a mistake is a crucial influence in the approach I might make to subsequent tasks of the same kind. If the mistake is simply that – a mistake – I can identify it and move on. On the other hand, if a mistake is taken as evidence that I lack the relevant ability , my subsequent attempts will rapidly diminish in enthusiasm, creating a downward spiral and a resultant state of "I just can't seem to do physics..." that we know so well.



A self-referential existence for 'ability' in the subjective realm (it exists by evidence for its absence!)

In the ball-catching analogy, people who are 'butterfingers' suffer from a similar lack of confidence. I usually ask for a 'butterfingers' to volunteer for an exercise where I throw the ball to them and ask them to concentrate on observing the ball closely (for example the direction it is spinning) rather than being concerned about whether they catch it or not. Volunteers for this exercise usually experience a remarkable improvement in their catching success when their attention is successfully distracted from their supposed catching ability in this way. They aren't usually aware until afterwards that they are catching the ball easily with sometimes very graceful movements – it's pretty obvious to everyone else in the seminar though.

I don't have time in this seminar to work on their drawing ability but it can be done very effectively by focussing the attention on observing the object rather than having one's attention taken up by self-criticism (see, for example, the approach documented by Betty Edwards in teaching drawing to adults). I don't overlook the opportunity to make a comparison between the mythical character of these more accessible 'abilities' and the main point of our discussion, physics 'ability'.

While the above analysis (mistake/inability 'vicious circle')† is perhaps somewhat simplistic, it is useful to have the students call into question the commonsense view of ability that both they and we appear to informally operate by. The notion of ability seems to offer very little to either the 'high fliers' or the 'strugglers', nor indeed to anyone else in the student population. The point is to have the students see that they have been struggling with a self-perpetuating phantom, in a way rather reminiscent of the rhyme "As I was walking on a stair/ I met a man who wasn't there/ He wasn't there again today/ I wish that man would go away!" Seeing ability more as a quasi-explanatory principle than a real personal characteristic often brings a great sense of relief and sets the stage for the table-turning conversations to follow.

KNOWLEDGE AND LEARNING

Let's look at the next item from the list of what students say makes physics difficult, namely that there are a lot of facts and formulae to learn, a lot of information to take in and make sense of. As thoughtful teachers in HE, we might recognise statements of this sort as characteristic of students with a 'surface' approach to learning, which research indicates is likely to be the majority of first year students (see, for example, Prosser et al). This is not an easy view to transcend, since if I tell students that learning is something beyond the efficient intake and retention of information they are likely to listen to this as yet more information to take in and retain. We have to demonstrate the point experientially and so far the most convincing demonstrations I have are based on simple visual perception, and they make the relevant points about learning very well.

I show on an overhead projector one or both of the images appearing on page 13. I ask "What do you see?". Usually students are quick to identify the dalmatian dog snuffling in the undergrowth, but take a longer time to identify the jersey cow staring out of the page at them. (Keep looking if you haven't seen it yet!). There is usually a bit of excitement as gradually people see the images and exclaim "Oh. Now I see it!". Interestingly, there are often some who do not see the dog or cow and the more they look, the more they are unable to see them.

I then ask "Alright. Tell me something else now. Where is this dog (or cow)?" and the obviousness of the question always causes a momentary double-take. "Why do you ask?" the eyes say "Any fool can see that it's right there, on the screen". "OK" I say "Then where was the dog (or cow) when all you could see was a jumble of black and white splotches?" "Oh well, it was still there – I just couldn't see it yet!" So I ask them to consider the possibility that the dog isn't on the screen at all, that it has become real to them because they have interpreted a bunch of black and white splotches in terms of their concept called 'dog'. So they are continually interpreting their observations of the world in terms of linguistically based models – a point which we shall expand upon later as being a fair description of what physics, and indeed almost all human knowledge, is intrinsically based on.

A SECOND LOOK

So far so good, but now comes the interesting bit – try looking at that image again and not

* This is my preferred type of observation post. What people say in venues such as these is far more likely to be an accurate indicator of the underlying attitudes that guide their practice – rather than what they might say in a Teaching Development workshop for example.

† For this insight I must thank a friend and colleague working in secondary Mathematics education, Joe Ousby.

see the dog; see just the black and white splotches again. Pause, the murmurs rise "I can't!". Now that's even harder than the first request, isn't it? The point is of course that once you have an interpretation for something its nearly impossible to see it freshly, making it even harder to interpret it in a way inconsistent with that prior interpretation.

There was no real difficulty earlier in accepting the proposition that we 'observe, then interpret', but seeing the process as a self-referential cycle is often a big surprise.

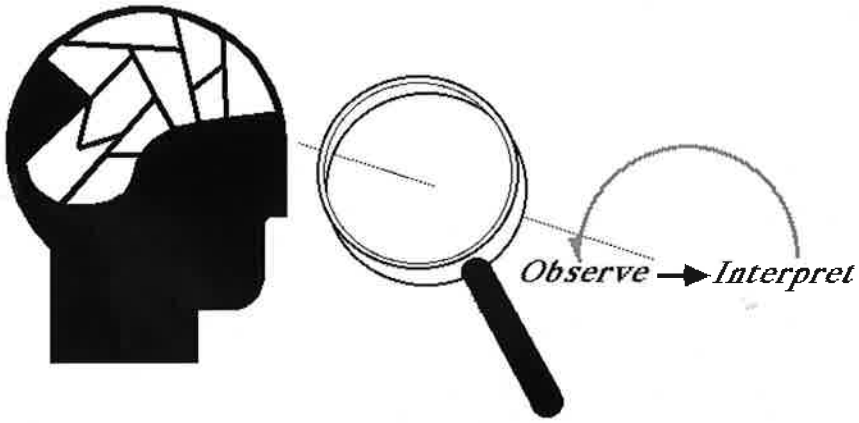
But what has this to do with learning or physics? Simply that our existing interpretations regarding physical phenomena make it very difficult to develop new concepts, especially when the prior conceptions are not explicit and there is some fundamental inconsistency between the old and new.

It has almost become a truism that students are not empty receptacles waiting to be filled with knowledge, but if they see themselves that way their approach to learning will be profoundly influenced by that underlying perception. The exercise with the pictures is designed to help them gain an insight into the effect of their preconceptions, firstly in an everyday realm, and then in relation to the physics (or other things) they are learning.

Interestingly, this seeing through the filter of prior conceptions is what is identified by some as a major factor in the inability of most adults to draw realistic images. When you look at someone's face you don't see just the light and shade and colour variations, you see (and silently identify) an eye, a nose, a mouth and so on. When you go to draw the face in front of you, this filter of interpretation hinders your ability to draw a realistic picture of the face. You tend to draw your preconceived image of the body part you are looking at, rather than what's actually in front of you. (see Betty Edwards' books for more detail about this) The difficulties students experience learning physics may well have very similar roots.

I ask the students to consider the proposition that what they are learning in physics is not a discovered collection of immutable facts (even though we call some of the principles physical 'laws') but rather a set of models that represent (I like to say 'mimic') the behaviour of what we can observe in the physical world.

The point is that these models, based as they are in language, were invented at some time in the past and that in science, a major indicator of the usefulness of a model is how well it represents the physical system in question. So Newton's second law is a model that can be used in representations of a ball moving through the air, for example – it's not as if the ball 'obeys' the law.



We often aren't aware of the profound influence of prior conceptions on what we can observe.

This relationship between knowledge and reality has never occurred to most of the students in the seminar. (Please note that I'm not saying that this outlook is truer than any other – it is also a model). I go on to make it more relevant to their approach to learning. Newton invented a model useful for describing an enormous range of phenomena; but never mind Newton – why should it be any different for you or me as an individual learning about physical processes and models? The models (and the concepts with which they are built) are not transmitted from teacher to student; perhaps we each construct our own models of what we see around us and we need to in some way construct the models of physics for ourselves.

In drawing all this together, I suggest to the students that 'the process of learning is a process of invention' (this way of expressing things seems to be remembered by many of them long after the event). This is really the main point of the seminar (even its title) and by this time most of those present can appreciate it very clearly.

PRACTICAL MATTERS

The mood in the seminar is by now quite different than it was earlier. The students are now keen to see how all this, inspirational as it might be, can help them in their learning of physics. We now re-examine the difficulties identified earlier in a new light. Physics is not difficult because of a students' prior ignorance, but because of what they already know. Physics is not difficult because it is complicated, but because it is simple – far simpler in fact than much of what a student must negotiate socially every day. Physics is not difficult because it is abstract and unworldly – on the contrary it is profoundly connected with everyday concerns and everyday thinking, even more so in the light of the discussion we've just had.

It is possible to translate some of these insights into practical strategies and we spend some time developing those. The list we come up with isn't very different from the kind of advice that lecturers might give the world over – read before a lecture to enable you to think more actively in a lecture, discuss the subject material with your peers, do assigned exercises and problems (and also use them to discover something about your preconceived patterns of thinking), explain things to others (and learn more deeply yourself), seek to understand rather than memorise... and so on. The insights developed in the earlier parts of the seminar provide a natural foundation for these practices in contrast to the usual implicit belief that if you want to learn something you will have to go through these motions and 'slog' long and hard. While probably taking more time, the 'inventive learning' approach does not mean students have to duplicate the original work, or 'discovery learn' or re-invent the wheel from first principles in some other way. The central element is the recognition of one's inventive activity in learning, even (dare I say it) in rote-learning – and not just when inventing mnemonics!

I also spend a little time on the issue of motivation and suggest that many of them base their approach on extrinsic motivation, for example to get a job (eventually). While there is nothing wrong with that, it is usually a far less powerful motivation than intrinsic interest – which is apparent in the work of many of the historical figures in physics and (I suggest to them) might be akin to the sense of wonderment at the world most of us remember experiencing as children. The well-known quotation from Isaac Newton about having seen himself as a small boy on the seashore turning over pebbles and shells is particularly appropriate. That sense of wonderment, I suggest to the students, is available even in quite traditionally delivered courses, especially if, as a student, one seeks to discern the models one already has and to see things freshly.

I usually give the students a handout reiterating the main points of the seminar and suggesting how they might apply them to learning physics – and their other subjects. For example, if learning is not about receiving and retaining information, one's approach to lectures might be different. Rather than slavishly copying the lecturer's notes unthinkingly, one might aim to develop skills in active and intelligent note-taking, one might read before a lecture and discuss it with other students afterwards (how utopian!). One might look for examples from everyday life that relate to the concepts and principles being developed in various courses and talk them over with others too. One would almost certainly avoid blindly memorising course material and recognise 'deep' learning as an active development of one's own models and act accordingly.

WHAT HAPPENS AFTERWARDS?

The seminar is designed to be thought provoking and catalytic in its effect. It is doubtful however that such a brief encounter with these ideas could result in a radical (or even a measurable) change in the behaviour of students in the day to day practicalities of learning physics. But for at least some students the experience is very timely and they keep discussing issues raised in the seminar amongst themselves and with me for months afterwards. I have in some years run a set of follow-up sessions in a lunchtime tutorial fashion and it is clear that the students attending are very interested in finding ways of applying the insights from the seminar in the practical matter of learning physics. However, for some (perhaps most) of the students the 'old way' of learning seems to be an easier alternative to return to. The pressure of time and large amounts of course material, the quantum leap in responsibility required and the habits of a lifetime probably far outweigh the value of ideas developed in a fairly brief and isolated discussion.

AND WHAT ABOUT TEACHING?

The ideas about learning manifest in the 'Learning Physics Inside Out' seminar are very much a major influence in my own physics teaching style. For example, when asking a question in a lecture I am interested in hearing not just from the two or three students who already know the 'right answer' but more from those who can contribute possible answers, or who might have a half-baked answer and are willing to participate in a public dialogue to work it through. I often ask students to 'vote' on likely outcomes of practical experiments to involve the thinking of everyone in a large lecture. Prediction is an excellent way of forcing underlying preconceptions to come to the surface, and the commitment of a vote (like a bet) engages interest very strongly. There are many other things I could suggest as teaching practices, but the point is to expand one's view of learning and the practices will evolve naturally within that new paradigm.

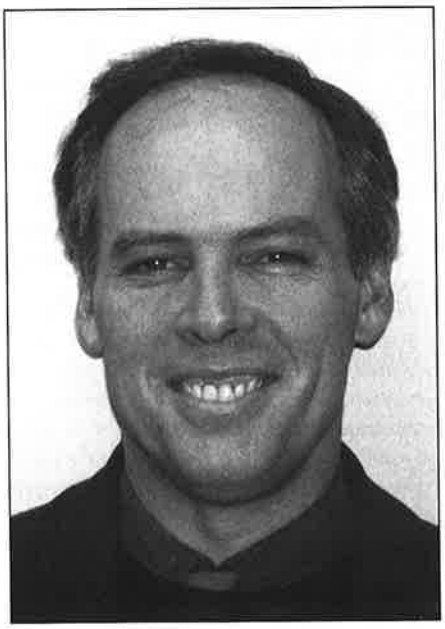
But in the spirit of the seminar, designed as it is to empower the students in their approach to learning, it is important to make these guiding principles more explicit. I have managed to weave some of the themes of this extracurricular seminar through my normal teaching without displacing subject material. Students generally appreciate knowing the rationale behind my somewhat unusual teaching methods and hopefully can take some of the benefits of the 'LPIO' seminar from their normal lectures. It seems desirable to have both the opportunity for reflection in 'time out' as provided by the seminar and a reinforcement of the insights thus obtained in the normal day-to-day teaching and learning process. Ideally, this should be a feature of most of their contact time in HE. If we could actively encourage our students to reflect on learning and their own approaches to learning while they are 'in the thick of it', we might be offering them something of lasting value.

REFERENCES

Edwards, B. (1992) **Drawing on the Right Side of the Brain**. London: HarperCollins

Johnson Abercrombie, M.L. (1969). **The Anatomy of Judgement**. Harmondsworth, Middlesex: Penguin

Prosser, M., Walker, P. & Millar, R. (1996). Differences in students' perceptions of learning physics, *Physics Education*, 31(1), 43–48



Dr Paul Walker *is Head of Teaching Development in the School of Physics, University of Sydney, Australia. He is presently on leave and working in the Higher Education Research and Development Unit at University College London.*

Approaches to Staff Development

Elaine Crosthwaite of HEQC reviews some of the ways in which universities are dealing with the need to develop, train and appraise their teaching staff.

Learning from Audit is the project title for the periodic review of the academic quality audit reports produced by the HEQC. The first volume, published in September 1994, comprised an analysis of the reports written on the 69 universities audited between April 1991 and April 1994. The second volume published in March 1996, covers 48 reports completed between April 1994 and July 1995. These represent a varied sample of institutions including post-1992 Universities, University of London Colleges and Medical Schools, and Colleges of Higher Education.

An important aspect of an institution's quality assurance framework is the arrangements made in respect of staffing. Audit teams enquire into procedures for staff appointment, induction and appraisal; how staff development policy is determined and implemented, and how the resulting activities are monitored and their effectiveness measured. This paper gives an overview of the findings of audit regarding the structures and arrangements which exist to identify and meet development needs and priorities, including the role of staff appraisal. Staff development issues which remain to be addresses are highlighted.

STAFF DEVELOPMENT STRUCTURES AND ARRANGEMENTS

Identifying development needs

Some institutions had been reviewing their approach to staff development and formulating a staff development policy in order to align development activities more closely to institutional objectives. In others, it would be helpful to have more explicit criteria by which to prioritise areas and issues for staff development, and more effective dissemination of information on the criteria for the approval of applications for staff development. Responsibility for the identification of priorities, allocation of funds, and provision of support for appropriate activities usually rested with faculties and departments, with central functions providing additional support and guidance. Sometimes responsibilities were shared with a personnel department or academic staff development unit. At Plymouth University, such a unit had conducted a training needs survey on the effects of modularisation, and then provided associated training events. The University of Northumbria was noted for its effective staff development environment in which a Training Advisory Group advised the Executive on the formulation and development of the strategy for initial and continuing staff development.

In several 'new' universities, departments were required to draw up staff development plans and to find the necessary resources to meet needs within defined priorities and objectives, and within the context of the overall corporate plan. Heads of department identified staff development needs from a range of information, some confidential and some public, including annual monitoring reports, course committee minutes, student feedback, and the outcomes of the appraisal process. In addition, recent departmental or subject reviews had helped in the identification of a range of staff development needs, for example at Hertfordshire University. Heads had responsibility for matching group and individual plans, and proposals were often then put to faculty sub-committees for allocations from the staff development budget to be made. In some institutions, the central service function or faculties also held some funds in order to support institution-wide activities, special initiatives, and bids from staff to undertake projects to improve course or teaching methods. It was noted that in a university with a devolved structure, greater central oversight would be advisable in order to ensure that a satisfactory minimum level of staff development activity was maintained across the institution as a whole.

At Coventry University, where the Vice-Chancellor chaired the Staff Development Committee, development themes were determined by drawing on submissions from a range of committees and comments from individuals. A central budget was held in the training section of the personnel department, and there were also devolved budgets for deans to allocate. Along with Coventry, institutions such as Harper Adams, and Nene College had committed to seeking Investors in People recognition, and this was assisting in the development of clearly expressed staff development policies. At Nene, the senior executive team had recognised that seeking the 'Investors' award would require a closer alignment of staff development with corporate objectives, and that robust training and development activities would be a necessary component for the achievement of the institutional mission.

Reports on London University Colleges indicated that greater attention was being given to staff development and pointed to the advantages which could be gained from developing an institutional strategy. This would include registering training and staff development needs centrally, and considering how the information gathered through the appraisal process could be used. There appeared to be a recognition by line managers and staff that a balance in development activity between personal needs and the development of the institution was needed. A post of Education Adviser which had been established at Guy's and St Thomas's Hospital to work with departments, staff groups and individuals to identify development needs and produce a training plan was commended. Royal Holloway College was also commended for a recent growth in staff development provision.

Meeting development needs

A central unit within the personnel department or a separate centre for educational development, usually had responsibility for organising conferences and workshops. In

some institutions, staff development units had been established to meet the training needs of both academic and non-academic staff, for example at Imperial College, London. It is advisable to define a clear role for the central unit, and its relationship to faculties and departments. This will enable the best use to be made of the resources available, avoid duplication, and ensure that staff development programmes are compatible with teaching requirements and staff commitments. Nottingham Trent University was commended for the appointment on a one day per week basis, of a Staff Development Coordinator in each faculty, who was responsible for liaising with the central Staff Development Services and developing local approaches to teaching and learning. Some institutions publicised their staff development programmes in a staff development handbook.

DEVELOPMENT FOR NEW STAFF

Induction

Many institutions provided an induction programme for all newly appointed staff, which typically comprised a centrally organised course of 2–3 days duration, offered twice per year, along with less formal arrangements in schools and departments. In University of London Colleges and Medical Schools, it was noted that new staff often joined a relatively small research grouping or subject division in a department, and had a relatively informal induction process which could work well. Some staff experienced difficulties in attending courses due to teaching commitments, and there was a variable participation rate among part-time staff. Institutions should consider how to ensure that all staff benefit equally from a systematic approach to induction. The allocation of an induction coordinator to meet new staff on their first day and be available for on-going support, and the provision of a handbook of information for new staff is helpful. The programme at Bishop Grosseteste College was commended for the effectiveness of the arrangements made for the induction and integration of part-time members of staff.

Mentoring

Many institutions had an established mentoring system for all new staff, but in some cases, practice varied between faculties and schools. Where schemes were operating, staff had found them helpful. The University of Hertfordshire was commended for its effective induction and well supported probationary periods for newly appointed staff which combined formal assessment and informal mentoring during the first year. An experienced teacher was assigned to an inexperienced new member of staff and typically there would be frequent contact, which might include observation of teaching and, in some instances, a planned weekly meeting for a general discussion of progress. The mentoring scheme for junior staff at the London School of Economics was also commended.

A number of operational issues have arisen in mentoring schemes, and suggest the advisability of clarification of the following: the roles and responsibilities of mentors, and whether such responsibilities are better discharged by younger or more experienced staff; whether the mentor should have a formal role in relation to observation of teaching and input into appraisal and confirmation of appointment; and the maximum number of staff that a mentor should be expected to supervise at any one time.

Programmes on teaching and learning

A number of institutions had formal development programmes for staff who were new to teaching. These normally applied to staff with less than three years teaching experience who did not possess a teaching qualification, and offered a means of ensuring minimum teaching standards as well as supporting new staff as they began an academic career. At some institutions, it was a requirement for new staff to attend such programmes.

Programmes included one week programmes, such as at St Bart's Medical School and Harper Adams College which covered teaching methods, assessment and course planning, and gave staff an opportunity to observe classroom activities. More common were longer modular programmes leading to a formal teaching qualification, for example the programme at the University of Central England consisted of three modules embracing teaching, learning and assessment. At Glasgow Caledonian University, all new staff undertook the postgraduate Certificate in Tertiary Level Teaching Methods, which comprised eight modules, a commitment to 260 hours of study, and participants had the support of a mentor who also completed an induction course. While most of these programmes were internally validated, some were also being submitted to the Staff and Educational Development Association (SEDA) for accreditation, for example, the certificated course at the University of East London. The Teachers Induction programme at Nottingham Trent University formed part of a wider accreditation programme leading to a Masters award.

In some institutions, formal provision for new teaching staff had been made, but as programmes were not compulsory, timetable clashes prevented attendance on a regular basis. In contrast, at the University of the West of England, a probationary lecturer had a 20% reduction in teaching load to allow for attendance on a professional development course occupying thirty three hour sessions over three terms. Generally, audit reports indicated an expectation that institutions would consider ways to ensure that new staff obtain appropriate support, advice and feedback on their teaching and other duties during their probationary period. In several instances, they recommended that some form of mandatory and certificated teacher training, which could be integrated with a postgraduate certificate in education, should be a condition of appointment for all staff without a relevant qualification. Furthermore, consideration should be given to extending arrangements to cover part-time staff, including research assistants and postgraduate research students who give assistance with teaching.

DEVELOPMENT FOR EXISTING STAFF

The emphasis of staff development activities was often on helping new staff, and there was a need for a greater emphasis on evaluating the needs of, and providing staff development for, mid-career staff. This included a focus on the creation of effective teaching practitioners, development for staff undertaking welfare and pastoral functions, as well as continuing professional development programmes. Where a postgraduate certificate course in education or teaching was available, such as at the Universities of Bournemouth and Greenwich, institutions could encourage more experienced and mid-career staff to take up such opportunities, particularly where enhancement of teaching skills would be beneficial. Programmes could possibly incorporate APEL.

In several institutions, part-time staff were playing a significant role, however they were often at a disadvantage in respect of access to development and training opportunities compared to full-time colleagues. Also, their administrative and tutorial roles were not always properly acknowledged. Given the commitment of institutions to equality of opportunity for all categories of staff, reports recommended a review of the staff appraisal, development, and promotion procedures for part-time staff and closer monitoring of outcomes.

Some reports commented that academic staff needs had hitherto been addressed more than non-academic needs but steps were now being taken to redress the balance, for example at the University of East London. The monitoring and evaluation of staff development appeared to be an area which did not receive a great deal of attention and some universities, such as Manchester Metropolitan University, had seen a need to strengthen their arrangements. At the University of Bournemouth, a Staff Development Evaluation Process periodically monitored the development strategy for a group of staff, usually a department, and staff had found this beneficial.

STAFF APPRAISAL

Appraisal schemes in the London University Colleges were usually confined to academic staff, and audit teams encouraged proposals to

extend them to technical and clerical staff. In the 'new' universities, appraisal schemes had often been introduced to cover both academic and administrative/support staff. In one institution where progress in implementing a scheme for support staff was variable, the audit team commented that a consistent approach to staff appraisal across all areas, with equity of treatment for all categories of staff, would be an important integrating feature in the university's approach to quality management. In many cases, the initial concerns of staff about the introduction of appraisal had been replaced by support for the system as they had become familiar with the process. The Manchester Metropolitan University scheme for permanent lecturing staff was developed through an extensive process of consultation within the university, and the process of development and implementation of the scheme was commended. Some institutions provided training for both appraisers and appraisees, and it was usual for appraisers to be required to attend.

Aims of appraisal

The aims of appraisal schemes varied. There was usually no link between the staff appraisal scheme and employment issues such as pay, promotion and regrading. However, the appraisal scheme at Royal Free Hospital Medical School was also used to provide supporting data for salary review, confirmation of probation and promotion, as well as developmental objectives. The management of the University of Central England saw appraisal as a crucial mechanism for communicating operational objectives to staff. Their scheme was based on an annual individual performance review and the setting of objectives which were followed up at a six monthly review meeting. At Nene College, the team found that performance review was an important mechanism for clarifying work objectives and was conducted in a motivating and open style with an appropriate balance between assessment and enhancement purposes. The scheme at Coventry University was firmly linked to staff development and training and the identification of university-wide staff training needs.

Links to staff development

Several audit reports indicate that the links between staff appraisal and development could be strengthened in the interests both of monitoring progress with the institutional staff development strategy, and of providing appropriate development activities and quality enhancement in the future. It was suggested that arrangements should be made to review a completed round of appraisals in order to identify common development themes and needs. In situations where appraisal forms are retained by appraisers, senior managers need to be made aware of the outcomes of appraisal interviews in order to construct an institution-wide training needs analysis. At the University of Westminster, it had been found helpful to feed a summary of training needs drawn from individual appraisals into deliberations about the construction of the annual staff development strategy and funding allocations to faculties. Nottingham Trent University had implemented a staff appraisal scheme geared to continuing developmental needs. Faculty Staff Development Coordinators were sometimes permitted to sift through parts of appraisal records that dealt with staff development plans, in order to monitor staff development outcomes, however, this was recognised as a sensitive area.

The appraisal interview

Most schemes involved an annual interview, either with the head of department or another senior colleague, providing a focus for establishing objectives in research, scholarship, course development, and the enhancement of teaching skills. Biennial appraisal was more usual in the London University Colleges. At the University of Hertfordshire, all staff were given a mandatory appraisal every two years and a review of progress against specific agreed objectives was undertaken every six months. Examples of actions resulting from staff appraisal included the identification of the need for specific skills, and agreements to make significant changes to work patterns and job emphasis.

Reports noted the concerns of staff where their review was not conducted by their line manager. This could be the case in large schools where there were perhaps in excess of thirty staff, which was felt to be too many for one person to appraise. There were staff fears that they were being denied access to the holder of the resources needed to achieve their objectives satisfactorily. There may also be problems in ensuring that the appraisal is informed by the school's strategic plans. In order to ensure that appraisals focused on an individuals's contribution to teaching and students' learning, it was suggested that institutions consider ways in which appraisers, particularly those who were not heads of department, had access to relevant information relating to performance in teaching and learning, including that which was available from student questionnaires.

Appraisal procedures

There was no universal agreement on the evidence which was to be used in the appraisal process, nor on the procedures for reporting on outcomes. Teaching observation was possible in some schemes, such as the University of Westminster, but not necessarily pursued, despite an appreciation that observation could benefit staff development. At the University of Northumbria, staff had discussed the issue of what constituted suitable evidence and criteria for the appraisal of teaching performance, and the outcomes of student questionnaires from annual course reviews were considered to be adequate.

Thames Valley University had introduced a peer review system, which was commended. This was based on an annual meeting between a member of staff and an 'appraisal partner', allocated by the line manager from a selection of three nominated by the appraisee. The University of Bournemouth scheme made use of a 'grandparent' to review appraisal forms to ensure that the process was applied uniformly throughout the university, and there was also the benefit of the grandparent having an overview of broad staff development needs. At the London School of Pharmacy, academic members of staff contributed to the appraisal of their head of department, and heads to the appraisal of the dean. This 'upward appraisal' was commended by the audit team.

CONCLUSIONS

The analysis of reports shows that staff development and training is receiving greater priority as a strategic issue. A commitment to staff development is often expressed in policy statements, and in many institutions, there are structures and arrangements to formulate and implement staff development strategies. In the 'new' universities, heads of department have a significant responsibility for identifying training needs and training planning. There were less formal but often developing arrangements in the other institutions audited. While there has in the past, been more focus on staff development as an individual matter in the London University Colleges, more attention is now being given to taking account of School priorities for development.

The requirement for new staff to attend a formalised induction and for those new to teaching to attend a programme of training in teaching skills is widely regarded as good practice. Generally, reports indicated a need for staff development to give greater emphasis in future to the improvement of teaching and learning strategies, the continuing professional development of mid-career staff, and provision for non-academic staff. Monitoring and evaluation of staff development also needs to be strengthened. Appraisal schemes for academic staff had been, or were in the process of being introduced in all the institutions audited. Some also included non-academic staff, or were about to be extended to include those in clerical and technical positions. There is increasing evidence that the outcomes of appraisal inform the staff development and training process and the allocation of the staff development budget.

Elaine Crosthwaite *is Assistant Director, Quality Enhancement Group, Higher Education Quality Council, 344–354 Gray's Inn Road, London.* *A version of this paper was presented at the SEDA National Conference in December 1995.*

BOOKS

LIKE A SANDWICH – GOOD IN THE MIDDLE

Evaluating Enterprise at Queen's

The Queen's

University of Belfast (1995) £6.95

ISBN 085 389 6062

'Enterprise at Queen's, a story with a rather shaky start, an excellent middle and a disappointing conclusion.' (p1)

The purpose of this book is to report various evaluation studies of the Enterprise in Higher Education (EHE) Initiative at the Queen's University of Belfast. The authors, being the internal evaluators of the Initiative, conducted eleven studies. Aspects such as the effectiveness of teaching innovations, the role of EHE within the University, the Initiative's impact on students, as well as the views and experiences of major stakeholders, were investigated.

The book begins with a useful and readable overview of why and how the evaluative studies of EHE Initiative at Queen's were planned and conducted, followed by a summing up of the major studies. This first chapter has a somewhat ambivalent postscript which concludes: 'Despite a landscape of lost motivations and abandoned projects, Enterprise has brought about fundamental changes in how staff think about learning and assessment ...'. 'Enterprise has been a success.' (p12) There are then ten chapters each reporting an evaluative study or project, which provide a comprehensive account of the achievements and failures of the Initiative as a whole. These reports are presented chronologically. This assists the reader to understand not only how the Initiative developed but also what problems evolved while the Initiative progressed. Through reading them, readers can appreciate how EHE might be evaluated by major stakeholders including students, graduates, staff members, employers, and university administrators.

One criticism of this book is that there is no background material on why and how the EHE Initiative evolved in the UK. Readers who have no prior knowledge of the Initiative might find it difficult to understand its social and economic implications. Another criticism is that, for a book on evaluation which places much emphasis on interviews, there is no indication of how the interview outcomes were validated.

This book benefits from the major findings of each study being highlighted at the beginning of each chapter. However, if there had been more presentation editing, the outcome would have been more professional. For example, proofreading and wordprocessing had shortcomings. The book would also have benefited from a glossary, list of acronyms (e.g. CRAC p71), index and bibliography – three references only, for Chapter 9.

This book will be of interest and value to those who wish to know more about the EHE experience by reading a specific account from a particular university evaluation study. Readers are invited to judge whether the book does report success. Our own conclusion from reading the book is that the University's senior management didn't understand the essence of the Initiative, did not support it with policy for recognition or reward of outcomes, and did not notice its passing. Queen's was probably not the only university in this regard.

Tracy Lo and Brad Imrie
City University of Hong Kong

RESEARCHERS DON'T FAIL ... THEY JUST FADE AWAY!

The Research Student's Guide to Success

Pat Cryer

SRHE and Open University Press

(1996) £12.99, ISBN 0 3351 9611 X

As a research student, I am always looking for the book entitled 'Your Research Degree on a Plate'. I know it doesn't exist, even though I am constantly fooled by many book titles and forewords that claim it does. Pat Cryer, being a person of some experience, knows that this isn't the book that researchers need. Many books treat further degrees as similar, if not the same; in fact, the contents of research degrees are impossible to compare but the starting points of all are similar. This book is a perfect introduction to these starting points and the additional ways of working that need to be developed in order to succeed as a researcher.

The book is built around a self study approach. It could be useful for research supervisors in tutorials to use as a training guide, to evoke debate or to initiate learning. For potential students, a read such as this is necessary to raise awareness of the language, expectations and pitfalls of post graduate research. As with any new job, the learning curve is steepest over the first few months, this book aids the discovery of management and working skills in an efficient, no-nonsense, occasionally patronising way that enables the researcher to achieve quickly the correct working speed.

When the researcher is past the initial hurdles of registration, first tutorials, accommodation, transport, setting goals, etc., this book is less of a necessity and becomes an excellent reference guide to the integral problems of research; such as, dealing with flagging sense of direction, emergencies, getting nowhere and feeling disorganised. The book is sequenced to allow research students to enter the book at their particular stage of research experience. Prospective research students not having registered can start at chapter 2; research students having registered, chapters 3 and 4; and those close to the finish of their research are advised to contemplate the last chapters.

Pat Cryer has provoked me to many thoughts and revisions of my understanding and expectations of research in a productive, knowledgeable, straight forward style; summed up by her intuitive comment concerning the fate of many research students ... researchers don't fail, they just fade away!

Phil Cadman
Nottingham Trent University

THE SORCERER'S APPRENTICE – A USER'S MANUAL?

Facets of Mentoring in Higher Education 1

SEDA paper 94

edited by *Hazel Fullerton*

SEDA (1996) £12.00

ISBN 0 946815 19 4

I looked at the title and thought 'Mmm, this might be interesting; after all, I am supposed to be mentoring one of the probationary lecturers in my department, (though nobody has ever said what the scheme is supposed to achieve!) so there might be something of interest in here'. Several hours later, after many returns to the pencil sharpener I finally put down the book. My head was buzzing with ideas and I started to pen a memo to the chair of our probations committee – however, I digress.

This SEDA publication is a collection of articles that relate to the broad term mentoring in HE. Whilst many relate to new academic staff other important stakeholders are included e.g. STUDENTS!

For me the book highlights two of the key decisions to be made in setting up schemes, namely: should they be formal or informal, and how can they be made to work in the current climate in HE? Surprise surprise, the book offers no answers (well, staff developers never do); what it does offer is a wealth of experiences from other HE establishments. This leaves readers in the wonderful position of being able to reflect on what others have done, what they might have done and thus how to take mentoring forward in their own institutions.

The contributions range from some very short (two sides), which left me a little perplexed – they were really just a series of

bullet points and some explanation would have helped me, to longer articles relating in detail the implementation of both formal and informal schemes at other institutions. One of the highlights for me was Jim Blythe's 'The Ten Dilemmas of Mentoring'; the author did offer some interesting ways out! Practical tips on how train mentors (and mentees) are also included, some in the format of case studies for use in your workshops.

The title says it all – part 2 must be on the way and I look forward to spending another sleepless night.

A minor point: some of the references are incorrectly cited, which caused me no end of problems with my librarian – be warned.

Overall, though, this should be recommended reading for all those involved in such schemes and also those thinking about them.

Bob Matthew
University of Bradford

AND SO IT WAS .... THE STORY OF HIGHER EDUCATION

The Meanings of Mass Higher Education

Peter Scott

SRHE and Open University Press (1995) £14.99
ISBN 0 3351 9442 7

This book sets out to tell the story of Higher Education (HE) in a systematic way in order to put forward an analysis of the growth of HE in Britain. To make meaning out of the seemingly chaotic dash for growth is a laudable endeavour, Scott does so skilfully by placing HE within a wider societal, cultural, economic and knowledge context. He rightly shows how the story of the shift from Èlite to mass HE cannot be summed up as a single totalising idea. Instead, to make sense of the way in which complex 'multiple modernisations', as Scott calls them, impinge upon and shape the academy, you need to chart these complexities and see how they have exerted relative influence on its shape and form. As such, the book is an invaluable text for researchers in the field of change in HE. There is a real need to undertake critical research in this field of education in Britain and this book provides a very useful and scholarly starting point.

Where I feel less enthused about the story is the kind of conclusions Scott draws. The part of the story where the future is predicted really does read like a kind of hopeful fiction. I am not confident, for example, that the current short term managerialism witnessed in the 'new' universities and the 'donnish dominion' in the traditional universities will be replaced by a loosening of controls and boundaries as HE becomes more open to society and economy. It seems to me there are entrenched and vested interests at work to maintain some form of Èlite HE. Indeed, Scott takes issue with Chris Duke's totalising theme of HE as lifelong learning because he says there will still be an intensified role for HE as a 'finishing school' for small Èlites. However, he claims HE institutions are now characterised by a fuzziness and permeability rather than a distinct binary divide. This still sounds like a two-tier system to me, albeit one that is shifting to form new configurations.

Scott's conclusions are that mass HE will emerge in a form where 'line management hierarchies crumble to be replace by networks, webs and other forms of loose association between constituent units' (p 170). This seems rather benign given the current conflicts over resource, accountability, and the differential status and prestige of HE institutions.

Despite these comments, I think the book should be on the reference shelf of all academics as we very much need to engage in a dialogue of this kind if we are to influence change.

Irene Selway
University of Portsmouth

CONTESTING STAFF DEVELOPMENT

We're All Post-Modernists Now

Graham Webb

Open University Press (1996)
ISBN 0-335-19288-2

This book comes at a most appropriate time for many staff developers. As a convinced reflective practitioner, I (and indeed many colleagues) had begun to question staff developers' ready acceptance of a host of uncritical 'positive-strokes' literature published under the banner of 'Staff Development and Training'. Webb sets out in his introduction stating that 'staff development is a site for contestation' and suggests that his book 'is certainly not intended to be a "practical" book'. I knew at this stage that I was set for a good read, and his intention to interrogate the concept of staff development, particularly the assumptions upon which staff developers base their own practice, met with my approval.

The first three chapters chart the philosophical landscape of staff development, commencing with a critique of positivism. Webb proceeds to examine the shortcomings of the organizing principles currently in vogue – such as 'deep' and 'surface' approaches to learning, reflective practice and action research. Despite his reservations about humanistic psychology, I was relieved that Rogers' (1969) Freedom to Learn was held up as a classic, as by this stage of the book I was becoming anxious about my own ready acceptance of Schon and Entwistle.

In Webb's final three chapters, he moves on to examine staff development from a critical theorist's and post-modernist's perspective. Despite the shortcomings of the former, he does concede that 'the staff developer's role ... is of leadership and facilitation – staff developers are in the vanguard of the movement towards better educational methods; they mirror the values of a better institution and ultimately a better society.' Thus, he suggests that for staff developers to bring about such an ideal, requires the latter perspective – a post-modernist approach. Furthermore, rather than mere acceptance of one particular interpretation or model of staff development, the 'staff developer in a postmodern world would retain the flexibility to step from one to the other'. Isn't this what we have all been doing?

In summary, the book provides a useful re-evaluation of what have come to be, amongst most staff developers, commonly held assumptions. It is a challenging read – and should therefore only be read by those willing to interrogate their own philosophy and practice, whilst navigating their progress to post-modernism!

Stephanie Marshall
University of York

NOTICE TO PUBLISHERS

Please send books for review to our Books Editor: Ms Lesley MacDonald, Staff Development and Training Advisor, University of Durham, Old Shire Hall, Durham DH1 3HP.

Forum

Forum is designed to allow debaters to express their views at longer length than is usual in a Letters page. Debaters are allowed up to 800 words to make their points clear. All the Editor asks is that authors focus on ideas, refrain from criticism of the person, and be as concise as reasonably possible within the constraints of the word limit.

'BUT THERE'S NOTHING IN THE LIBRARY...'

One of the positive aspects of distance education is the accessibility of education to those who are unable to enrol in full-time education. On such courses, students may not have the opportunity to develop their information-seeking skills if residential components are infrequent or if students have limited access to a local library. That studying occupies only a part of a busy life also means students do not have the time to spend 'browsing' in a library. How then can students develop their information-seeking skills and be encouraged to undertake further reading?

Most of the students on our course have not been in HE before, and they anticipate a didactic approach to their teaching and learning so that they do not have to search out relevant articles or books themselves. This sometimes presents itself as the 'tell me what I need to know' syndrome that many academic staff will be familiar with.

In addition, they expect a well-stocked library at the university. The reality is often very different when they are faced with a large university library catering for many courses. Students may also feel very frustrated if the book they want is never there.

Although I acknowledge that there will never be every key text and relevant journal article available for every student and that libraries are not always funded to keep pace with the increase in full-cost activities, the information-seeking skills of students is also not fully developed.

This difficulty was brought home to me very clearly one day in our faculty library when I met one of the distance-learners gazing at the nursing books on a shelf. I mentioned to her that she appeared to be looking a bit lost and she uttered the famous "there's nothing here and I have to collect my daughter in half an hour". She seemed to be hoping that a key text was about to jump off the shelf at her. The problem was that she was looking for material on the management of change in the nursing section. She had not considered using the library catalogue to see what was available, nor had she scanned through the journal section to find key management references. There does seem to be reluctance to use journals. Once she found the relevant section, there were a number of management texts. However, this did not solve her other problem of having to decide fairly quickly how useful the available texts may be.

This incident made me reflect on the preparation of distance-learning students in their information-seeking skills at the begining of our course. We do offer library orientation, but I think that we need to provide ongoing support for students throughout a course in the development of these skills.

It is an attractive option to provide students with all the necessary reading for their course. But, if this approach is followed, we then need to be concerned about how they are to develop skills in finding out what is 'out there'.

A second option seems to be the alteration of lending policies within libraries to cater for the differing needs of distance learners. Until fairly recently, part-time students have been unable to borrow the same number of books as full-time students and this adds to their sense of frustration. The introduction of postal loan schemes is one way to solve this, but it still means that students have to know what they are looking for. Our course team has tried to address this by providing the students with bibliographic lists relating to specific topics. Students still have to search through a particular list to find key references, but it gives them an idea of what has already been written about a topic and where it is published.

The third option is the opportunity to develop computer-based library facilities (i.e. a virtual library). A few nursing journals are now being produced on-line to widen access to them. Although many of our students do not yet have access to computer technology, I am sure that in a few years, this may be very different. This would enable students to access references and texts from their own homes (or from a local base). This would then ensure that their geographical location would not limit their access to the literature.

Dr. Sally Lawton
Lecturer in Nursing,
The Robert Gordon University, Aberdeen.

SUMMATIVE OR FORMATIVE EVALUATION – OR BOTH

formative
of or relating to formation, development or growth shaping, moulding,
summative (from summary)
an aggregation
giving the gist or essence
– a brief account giving the main points

The term summative refers to the root word summary which indicates that there is a single encapsulated snapshot of a particular instance or process – a summation of a number of variables is captured in a single instance. Formative is not the opposite of summative. Formative is associated with changes that occur, often as the result of something. Both terms have taken on particular meanings in the context of staff development and evaluation in particular.

The distinction between summative and formative evaluation is not clear. To say that a document or a question is a summative one belies the variety of uses for that question or document. Whether it is summative or formative rests more with its later use than anything inherent in its design, although one could set out to design a document that mighty suit a formative purpose rather than a summative one and vice versus.

I would contest that student evaluations have the potential to be both formative and summative. By convention, the staff development literature often refers to summative evaluations as those where the purpose is to take a summary picture of a process and a formative evaluation is one where the intention is towards shaping, moulding development, growth or change. Whether an instrument is one or the other depends on the use that is made of it.

The matter can be teased out further by saying that it would be unwise to try and design a single document that tries to do both tasks effectively, but that is not to deny that it is possible that a single document, regardless of its designed function will and can be used in a variety of ways. Almost any evaluative document has the potential for both summative and formative outcomes. Student assessment is an example where even the final exam script can be obtained by the author and used for formative purposes.

With respect to student evaluations at Lincoln University, we follow convention and

refer to our different documents as summative and formative but in practice I have endeavoured to use the standard student evaluation for both summative and formative purposes.

Where a teacher chose to follow up the results of the 'summative' evaluation with some changes to improve, modify, grow or develop, the instrument has had a formative effect and could be regarded as a formative document. At Lincoln I have endeavoured, to encourage academic staff who are interested in their teaching to leave the documents out of their files and see the possibilities for growth and development within them. I believe that I have pioneered a rather rare use of 'summative' documents by arranging a discussion with the staffmember about his/her results. That is a luxury allowed for at Lincoln that is viewed with some envy by my colleagues in larger or poorly staffed universities who would like to do the same thing and release some of the potential from the workload that goes into producing these documents. In a recent publication, I likened the mailing of summative results to academic staff as being similar to surgeons mailing the X-rays to their clients for their own diagnosis. I have claimed, also, that staff development people have some expertise in interpreting the results of these documents (which are in some ways more complex than x-rays).

I can show that, in a number of instances, the interpretation of the evaluation results by the teacher was sometimes at variance with my own interpretation. Some, with excellent results tend to focus on the negative responses of a minority of students (often only one or two). Others who are not teaching well are capable of salvaging their self esteem in a very understandable way by focusing on the few positive results or responses.

There are those who would prefer to take the summation and file it, without discussing anything with anybody. I have, however, found that I am usually warmly received, the discussion is usually lively and informative for both of us and I have often been heartened by the ways in which my colleagues have taken the summative statements and the written feedback from students and made some very formative changes to their teaching. I documented a case where that was so significantly done that it served as an excellent example of the formative use of a 'summative' document. I hope to back that single case study with other staff's statements about the usefulness (or other) of the feedback process we use.

As regards the requirements at Lincoln University I see the policy focusing on the summative use of the standard evaluation document but that does not rule out the possibility that the document retains the potential for both summative and formative uses and that decision rests with the teacher. Even the head of department could be trained to use the document for formative purposes. In a case where a teacher is not applying for promotion, the document is probably in limbo because neither the HOD nor the teacher is obliged to do anything with it. Whether it is formative or summative is hardly an issue if it is not used.

In summary, I would suggest that the words summative and formative may serve only to confuse the more important issues that are concerned with mandatory evaluations and that as their definition hinges on the way(s) in which they are used we should talk about evaluations (student and peer) and their particular uses rather than claim that by their nature student and peer evaluations are one or other.

Neil D Fleming
Director, Education Centre, PO Box 84, Lincoln University Canterbury, New Zealand
http://www.lincoln.ac.nz/staff.htm
Email: FlemingN@lincoln.ac.nz

THE NEW MANAGEMENT – DÉJEÁ VU?

The Knowledge Worker; Empowerment; Contracting Out; The Learning Organisation; Federalism – relatively new to the private sector but I think we've seen these before – in HE.

I came into HE 7 years ago after 18 years on the private sector and I found it empowering. The message appeared to be: 'You are professional, you know your field, we trust you. Staff acted in an empowered way- took responsibility, worked for each other, put the customers first (we called them students) and were committed to shared professional standards.

HE was *delayered*. As a Training Manager in the private sector I had been 5 levels down from the Chief executive. In HE I was 3 levels down and there were only 5 levels rather than 9 at my previous employer. HE was also already *contracted out*. It was standard practice to use part-time and visiting lecturers to bring in their expertise and new ideas. This resource was flexible adaptable and knowledgeable.

I joined a *Learning Organisation*. This is now very popular in the journals, but HE already had the open climate, debate, discussion and shared learning. A learning community as well as an organisation existed; how else could HE operate?

Another recent concept is '*Federalism*'. Charles Handy in '*The Empty Raincoat*' explains how Federalism seeks to be 'Centralised in some respects and decentralised in others.... to maintain a strong centre but one devoted to the service of its parts..... . There is room in Federalism for the small to influence the mighty and for individuals to flex their muscles.'

HE again appears to have practised this before – the students and the course; the course and the department; the department and the faculty; the faculty and the centre. Differences have been allowed, debate has been valued.

Obviously this approach has implications for management style. Leadership and persuasion are going to be more useful than direction and control.

This leads me onto another growth area in the literature. '*The Knowledge Worker*'. The need for creativity and added value to gain competitive advantage implies increasing demand for the thinking employee who is adaptable and creative. These workers are likely to be more challenging for managers. They may resent outdated attempts to manage them based on *Scientific Management* and bureaucracy.

Surely HE has some valuable experience here. Bureaucracy has existed but the knowledge workers have often been shielded from it by insightful leaders, often knowledge workers themselves, who have seen their roles as mediators and facilitators rather than as scientific controlling managers.

So we've been there already? Yes, I think so but I also believe that some of the above concepts are being overwhelmed in HE. New organisation structures are adding layers to the hierarchy. New cultures impose missions and strategies and hence disempower staff. 'Senior Management' may find that a Learning Organisation challenges their decisions; knowledge workers may not react 'properly' to Scientific Management and Federalism may seem impossible in a climate of 'efficiency gains' and multiple layers of quality audit and assessment.

Should we therefore research and share our knowledge and experience of these 'new ideas' before it's too late? I would be interested in developing these thoughts with your readers.

John Furnival
Principal Lecturer
Business School, University of Central England

MUTUAL SUPPORT

We are a small group of university teachers in life sciences from various institutions, and we are writing both to celebrate 20 years of meeting annually to discuss and promote good teaching and to encourage others to form similar groups.

We met in 1976 on a course for university teachers at what was then the University of London Teaching Methods Unit (UTMU) and at a time when teaching quality was very low on the academic agenda. The course provided much needed training and food for thought, but above all it purveyed an enthusiasm for good teaching and a moral support that none of us had experienced in our home institutions. At the 'follow up' session that was part of the course some of our tutor group agreed to meet regularly and have been doing so ever since – including the tutor!

Our meetings are informal, but each participant suggests a topic and leads a discussion, provides an article or other paperwork or makes some other contribution; an important

feature in the group's continued existence. Over the years the topics have reflected our changing experience and responsibilities. Among those we have considered have been:

- effective tutorials, both personal and academic with occasional video-taped contributions of members
- the design of courses being run by individual members
- course evaluation
- essay marking
- giving criticism to students
- assessment and the classification of degrees
- encouraging the embedding of generic skills, such as communication skills and information technology, into our courses
- personal tutoring, the pleasures and pitfalls and the idea of boundaries
- appraisal, its value and shortcomings

- quality assurance
- franchising courses
- keeping up morale

The continued existence of the group is an indication of its value to each of us individually. We make time for it each year and two members travel from considerable distances (the others provide the lunch!). We have all benefitted in various ways and would pinpoint of special value:

- mutual support for attempts to improve teaching, often, especially in the early days, in the face of indifference or even hostility from colleagues
- a forum for exploring problems and difficulties in teaching
- the opportunity to 'bounce ideas' off sympathetic colleagues
- the exchange of ideas and information on various aspects of teaching
- the exchange of experiences of, for example, appraisal, quality assessement
- mutual reinforcement to keep up standards and avoid getting stale
- the impetus to continue our efforts to improve our teaching and to try new ideas. As one member put it recently "I again left with batteries recharged".

We now have over 120 years of teaching experience between us – a sobering thought indeed, but via the group those years have, we believe, been far more effective and enjoyable than if we had been teachers operating on our own. Although happily there is now much more emphasis on staff development and good teaching we believe there is still a role for discussion and support groups such as ours and for any New (and not so new) Academics contemplating forming such a group we would say 'make the effort - it really is worthwhile'.

Gillian Sales
Division of Life Sciences, King's College London, Campden Hill Road, London W8 7AH.
Henry Leese
Department of Biology, University of York, Heslington, York YO1 5DD.
Venetia France
Medical Education Unit, University College London Medical School 46 Cleveland Street, London W1P 6DB.
Mary Forsling
Division of Physiology, St Thomas' Hospital, Lambeth Palace Road, London SE1 7EH.
Richard Jurd
Department of Biology, University of essex, Wivenhoe Park, Colchester, Essex CO4 3SQ.
Peter Jeffery
Department of Lung Pathology, Royal Brompton National Heart and Lung Hospital, Sydney Street, London SW3 6NP.

New SEDA Papers

Now on Sale

Facets of Mentoring in HE, vol.1

A series of case studies showing how mentoring has been handled in departments across the country. If you're thinking of introducing mentoring, then this practical book will provide a valuable introduction to issues and dilemmas.

SEDA Paper 94, edited by Hazel Fullerton. Price £12.

Innovations in Teaching Medical Science

This is a sample of the wide range of innovative approaches to teaching medical science being taken in the UK, Europe and the USA. People working across this extensive and varied field describe how they have changed their practices, with what benefits and at what price.

SEDA Paper 93, edited by Kate Exley and Reg Dinnick. Price £14.

Other SEDA Papers published in the past year include:

Innovations in Computing Teaching, vols. 1 & 2.
Edited by John Hart and Martin Smith, these books have sold strongly since publication. Paper 88 is £12, Paper 91 is £14.

Empowering Teachers and Learners through Technology.
Edited by Chris O'Hagan, it considers the fast-changing use of educational media. Paper 90, £14.

Franchising has been a growth area in the past decade. Good practice has grown up, which some problematic practices have caused concern. *Gina Wisker's* **Franchising: flexibility and fruitful partnerships** explores some of these areas. Paper 92, £12.

Not to mention a further 26 SEDA Papers on our list.
And the publications of the HE Research & Development Society of Australasia that we sell.

Have you thought of editing a SEDA Paper? We are always looking for new editors, fresh ideas, and we will gladly advise you on making your concern into a SEDA Paper.

Interested?

Contact the SEDA Office.

To get a full publications list, or to order SEDA Papers, contact the SEDA Office