
Recent activities and plans for the near future

All staff of the Network are now in place, and you can see their details on our Web site. The entire team plus consultants - 17 of us in all - met for an extended "away day" in January, and identified four key areas for development over the next six months:

- Staff development - investigation of current training and how we can influence it; identification of "champions"; running programmes and workshops targeted at new lecturers; dissemination of "teaching tips"
- The school-university transition - investigation of changes in school curricula in England, Scotland, Wales, NI and how this will affect what is delivered during the first year at university; dissemination of advice for admissions tutors and first year lecturers
- Service teaching - courses for non-specialist students can provide up to 40% of a department's income. Often seen as a chore, we want it to be seen as a challenge and to encourage sharing of experience
- Assessment - investigate specific problems for our discipline; encourage sharing of experience

We will be reporting on these key areas in the newsletter and on our Web site over the coming months.

Workshops and Conferences

The November workshop based on the content of the report *Measuring the Mathematics Problem* was well received, and the Engineering Council held a meeting on this topic in December. There will be a repeat of the workshop, run jointly with LTSN Physical Sciences and LTSN Engineering, at Heriot-Watt University on Wednesday 4 April. You can keep in touch with developments by joining the Jiscmail list measure-maths-problem

Workshops taking place in May:

- Thursday 3 May at the University of Glasgow - "Applied Regression including computing and graphics". The main presenter will be Sanford Weisberg from Minnesota. Details from anne@stats.gla.ac.uk or phone 0141 330 2718
- Wednesday 30 May at the University of Birmingham - "Matching Assessment to Learning". This will include sessions on "assessment jargon", peer and project assessment and personal development plans. Details from info@mathstore.ac.uk or phone 0121 414 7095

We would also like to highlight two upcoming conferences on learning and teaching in our discipline.

- British Congress of Mathematics Education, Keele University, 5-7 July 2001, with the theme of Removing Boundaries.
- Undergraduate Mathematics Teaching Conference, University of Birmingham, 3-6 September.

Further information in the Diary - see p44 or <http://ltsn.mathstore.ac.uk/events/default.htm>

Pam Bishop and Neville Davies gave a plenary talk at the international conference Technology in Mathematics Education (TIME2000) in Auckland.



Plenary speakers at TIME2000
back row: Neville Davies, Richard Lesh, Richard Noss, David Tall, Jim Kaput
front row: Pam Bishop, Beth Chance, Kaye Stacey, Celia Hoyles, Mike Thomas

Stats/OR activities

A series of workshops for Stats/OR activists in the autumn provided feedback on the needs of the Stats/OR community as described in the article opposite. Network staff are now undertaking a survey of recent statistics education literature and web resources, carrying out interviews with statistics lecturers, collecting examples of good practice and innovation, and planning a one-day induction and development workshop.

An electronic guide to the resources that are available at the RSS Centre for Statistical Education, Nottingham

Trent University, for teachers of statistics at all levels, can now be found at http://science.ntu.ac.uk/rsscse/library_database.htm. Here you will find quick and easy access to information on pre-prints, articles, reports, textbooks etc that are available for use at the RSS Centre. The resource is being added to as and when appropriate. In addition we have a dedicated resource room that can be used by visitors for research, presentation of seminars and private study. Please write or call if you would like to arrange to come and help with and/or start projects associated with learning, teaching and assessment in Statistics and Operational Research.

Maths activities

All Maths contacts have been emailed with an initial welcome and short survey on learning and teaching to enable us to build up a reasonably comprehensive picture of the current "state of play" in departments. The idea of commissioning teaching and learning projects in mathematics was taken up with very encouraging results. The chosen projects are:

1 After the Diagnostic Test - what next? Evaluating and Enhancing the Effectiveness of Mathematics Support Centres

This project will be run by Duncan Lawson (Coventry) and Tony Croft (Loughborough). A research assistant at Coventry will carry out an initial email survey and telephone interviews, and the project team will visit other institutions to interview staff and students and identify factors for success. The results will be disseminated through newsletter articles, a workshop

and a practical handbook "Good Practice in the Provision of Mathematics Support".

2 Where are we now? Analysis of relevant QAA reports to identify good practice which is capable of dissemination

This project will be run by Bill Cox (Aston) and Penny Bidgood (Kingston). A searchable database of information from recent subject review will be established and followed up by interviews with institutions and individuals. Workshops and publications will follow on topics such as transferable skills, group and project work, support during the transition to university and the use of technology.

3 Groupwork Reluctance in Mathematics Education

This project will be run by Judith McBean (UCL) with support from Ted Graham (Plymouth). The aim is to gain a better understanding of both lecturers' and students' attitudes towards the use of workshops, group-based learning and similar teaching methods in undergraduate mathematics courses. The outcomes will include a set of guidelines to aid mathematics lecturers in their future use of group-based learning.

Evaluation

Our Advisory Committee has recommended that we appoint a team of regional evaluators to measure how we are reaching out into the community. We are currently engaged in approaching appropriate candidates.

Feedback from the Stats/OR community

Report from workshops held in October – November 2000, by Neville Davies

During May and June 2000 all UK university contacts were sent an email inviting them to participate in six regional workshops.

1 Aims

Five regional workshops were held at the following locations: the Royal Statistical Society (RSS) offices in Errol St, London; the University of York; The University of Glasgow; Nottingham Trent University; and the University of the West of England. The aims were to discuss with our higher education (HE) statistics and OR

colleagues how the MSOR network can best stimulate the sharing of good practice and innovation in learning and teaching, and how it can connect our community. They were also designed to find out what statistics and OR colleagues need and expect from the MSOR Network.

2 Format

At each workshop discussion papers were distributed that were written by staff contracted to the MSOR network, namely: Neville Davies, Peter Holmes, and

Colin James (the RSS Centre for Statistical Education at Nottingham Trent University), Flavia Jolliffe (University of Greenwich), Susan Starkings (South Bank University), Warren Gilchrist (Sheffield Hallam University), Mike Fuller (University of Kent). The duration of each was close to 3 hours, with a short break mid-way through

The conduct and content of the workshops varied, but the most useful ones turned out to be those at which discussion centred around the needs and aspirations of HE colleagues and their departments.

3 Participants

At the workshops there were one or more representatives from the following 32 UK universities:

Aberdeen; Aberystwyth; Birmingham; Brighton; City; De Montfort; Derby; East Anglia; Edinburgh; Glasgow; Glasgow Caledonian; Greenwich; Heriot-Watt; Huddersfield; Keele; Kent; Kings College; Leeds; London School of Economics; Nottingham Trent; Open; Paisley; Plymouth; Portsmouth; Reading; Sheffield Hallam; South Bank; Strathclyde; Swansea; St Andrews; West of England; Wolverhampton.

The total constituency of UK Higher Education Institutions in which the MSOR network has at least one named representative is 100.

4 Needs

A list of some of the needs of our community, and that the MSOR network should provide, from those who attended the workshops, is summarised as follows:

- Identification of Champions of good practice;
- Material to improve teaching and learning, especially to make it more dynamic;
- Who does diagnostic testing - where and what is its availability?
- A catalogue of resources, including a list of

electronic web-based resources with comments and gradings, with links to books, articles and so forth;

- Web-based tutorial-type material, example the use of STEPS modules in teaching;
- Good practice in the use of remote access-type student learning and teaching;
- Good assessment practice;
- Examples of case studies or projects, including the corresponding data, and use with packages such as Minitab and Excel in service courses;
- What is being used in teaching? - a search machine is needed to find individual topics, especially a catalogue of applets;
- Sources of data associated with projects;
- What are the methods that should be used to attract people to want to teach statistics;
- The list of university contacts should be distributed to everyone;
- Connecting and involving the many teachers of statistics who are attached to non-mathematics and statistics departments;
- Reach out and help service teaching;
- How do we deal with (a) a wide range of mathematical backgrounds for beginning students and (b) large classes with a wide range of ability?
- Need good service course examples, especially data sets with teaching tips;
- Create graphical explanation of concepts for advanced/honours level students;
- What can we do about helping staff development for new lecturers?

5 Next Steps

The LTSN Maths, Stats and OR Network met to discuss these and other issues on 22 and 23 January. Priorities were decided and those activities which we will pursue this year will be reported elsewhere.

Applied regression including computing and graphics

Sanford Weisberg, University of Minnesota

Workshop, 3 May 2001, at the University of Glasgow

Further details from Maths, Stats & OR Network in Glasgow

tel 0141 330 2718, email anne@stats.gla.ac.uk

<http://www.ltsn.gla.ac.uk/rworkshop.asp>