Discipline work at the Higher Education Academy

In recent years, the work of the Higher Education Academy (HEA) at discipline level has been delivered through a network of subject centres located in universities. In the case of Mathematics, Statistics and Operational Research (MSOR), this subject centre has been the HEA MSOR Network. As part of a major restructuring in 2010/11 the HEA decided to deliver discipline specific work centrally rather than through subject centres. Subsequently Discipline Leads were appointed for each discipline and transition funding was made available to subject centres, who wished to continue into 2011/12. Consequently 2011/12 has been a transition year during which the MSOR Network has been continuing with its activities, while at the same time the HEA MSOR discipline has been establishing itself within the HEA STEM cluster. This overlap period has enabled dialogue to take place which should ensure that work in the HEA MSOR discipline is well informed by a thorough understanding of the work which was undertaken by the MSOR Network in the past.

As the end of this transition year is approached, it is worth taking time to look back at some of the achievements of the MSOR Network. It is also timely to take this opportunity to document how this work is being taken forward and to explain what has been done since September 2011 to establish the new MSOR discipline within the restructured HEA.

Established activities

In a single article, such as this, it would be impossible to highlight all the ways in which the MSOR Network has supported the MSOR community in the UK over many years. However, some activities deserve special mention. In particular, the very popular CETL-MSOR Conference has become an annual event which is highly valued and has provided a rich forum for the discussion of teaching and learning matters in MSOR. This year CETL-MSOR 2012 ran in partnership with the HEA MSOR discipline which is delighted to have been able to provide financial support for the event.

The MSOR Network’s induction course for new lecturers and the workshops for postgraduate (PG) students who teach, have a well-established reputation for providing high quality and relevant discipline specific training for those new to teaching in MSOR. From 2012/13 these events will be run by the HEA MSOR discipline, with the HEA MSOR Discipline Lead having direct responsibility for them. Both events will remain discipline specific and will continue to be delivered by experienced MSOR academics. In line with good practice they will be subject to a
process of regular evaluation and review with the intention
of ensuring that they remain current, and continue to
meet the changing needs of those new to teaching in
the MSOR discipline. The next induction course for new
lecturers will take place at the University of Nottingham
from 12-13 September 2012. PG workshops will be running
in departments throughout the UK in the autumn and will
be open to students from any university wishing to attend.
More information about both events can be found at
http://www.heacademy.ac.uk/disciplines/maths-stats-or.

Currently the MSOR Network’s website
(http://www.mathstore.ac.uk) hosts a rich repository of
electronic resources which have been accumulated over
an extended period of time. These include materials for
MSOR academics to use directly in their work with students,
good practice guides to inform academic practice and
professional development, as well as reference sources for
those directly engaged in pedagogic work. It is important
that these highly valued resources continue to be accessible
to the MSOR community for as long as they remain current.
For this reason, after the summer it will still be possible to
access these resources from the HEA MSOR discipline page at
http://www.heacademy.ac.uk/disciplines/maths-stats-or.

The MSOR Network’s regular publication Connections has
been a valuable conduit for disseminating information
about developments in teaching and learning to MSOR
practitioners. In recent years it has contained articles
about a diverse range of topics such as the outcomes from
project work, reviews of software, national initiatives and
personal perspectives on sector-wide developments. There
have also been a number of special issues devoted to
particular events and activities. Consultations undertaken
in recent years have demonstrated that Connections is highly valued by the MSOR community. It will be
continuing and after the summer will be accessible via
http://www.heacademy.ac.uk/disciplines/maths-stats-or.

At this point, it would be a serious omission not to mention
the MSOR Network’s wider activities. Of particular note is
development work undertaken with other subject centres and
contributions made to national initiatives such as the
Mathematical Sciences HE Curriculum Innovation Project of
the HE STEM programme.

New developments
This year the HEA MSOR discipline has supported and
funded a series of institutionally hosted workshops. These
events have provided opportunities for networking,
discussion about work in progress and the dissemination
of good practice in MSOR teaching and learning. The
wide range of topics covered at the events includes the
teaching of Statistics, the employability of OR graduates,
assessing the mathematical needs of undergraduates and
Mathematics and Statistics support.

Earlier this year the first annual HEA STEM Conference took
place at Imperial College, London. The conference was
attended by over two hundred delegates and had sessions
which were dedicated to each of the eight HEA STEM
disciplines. The conference had a dedicated MSOR strand
and provided an environment which facilitated discussion
both within MSOR and across disciplinary boundaries.

Papers from the conference are available at http://www.
heacademy.ac.uk/events/detail/2012/academyevents/
STEM_annual_conf. Interdisciplinary discussion also played
an important part in the first HEA STEM Summit which took
place in February this year. This event brought together
experts for a two day summit which focussed on feedback.
Outputs from the summit are expected later in the year.

During 2011/12 the HEA MSOR discipline has been
developing a workshop aimed at providing an opportunity
for experienced lecturers in Mathematics and Statistics
to spend a day focussing on teaching. A pilot run of the
workshop took place in May. I would like to thank all those
who attended and provided constructive feedback. This will be
used to inform how this initiative is taken forward.

Work at discipline level within the HEA is not just about
running events. It also involves working collectively with
the discipline community to identify ways of addressing
some of the current issues and challenges which are faced
by practitioners. In line with this aim, two special interest
groups have been set up. The first is considering service
provision offered by the Mathematical Sciences while the
second is looking at enhancing students’ experiences of OR.
The findings of these groups will be used to inform future
HEA work in these areas.

In the last year the HEA has produced a series of reports
on the NSS scores achieved in individual discipline areas.
The report on the NSS results for Mathematics, Statistics
and Operational Research should be a valuable source of
reference for departments and is available at http://www.
heacademy.ac.uk/resources/detail/nss/NSS_Discipline_

Skills in the use and application of Mathematics and/or
Statistics are essential components of degree programmes
in the Mathematical Sciences and also underpin many of
the analytical and quantitative methods used in a wide
variety of academic disciplines. The HEA STEM cluster
has recently embarked on a major project to look at
Mathematics and Statistics across disciplines.

Funding successes and opportunities
During the last year the HEA has been operating a UK travel
fund which is used to fund travel within the UK to enable
the dissemination of good practice in teaching and learning.
There have been a number of successful applications from
people working in MSOR. Further details of the fund can be
found at http://www.heacademy.ac.uk/travel-fund.
Teaching development grants are one way in which the HEA provides funding for project work. In the last year there have been separate calls for funding for individual, departmental and collaborative grants. Some of the grants have been awarded to projects in MSOR. The scheme provides support to successful applicants through an induction event and contact with an HEA representative during the project. The next calls for departmental and collaborative grants will open in August 2012 and January 2013 respectively. Full details of the scheme can be found at [http://www.heacademy.ac.uk/tdg](http://www.heacademy.ac.uk/tdg).

Other sources of funding will be available in 2012/13 through the HEA International Scholarship scheme and the HEA Doctoral Programme, which funds PhD studentships. The International Scholarship scheme enables experienced academics to spend an extended period of time working abroad with the aim of bringing back good practice in teaching and learning for dissemination throughout the UK. Full details of both programmes and other funding opportunities can be found at [http://www.heacademy.ac.uk/funding](http://www.heacademy.ac.uk/funding).

Communication

Regular information for people working in MSOR is provided via the new HEA Maths, Stats and OR Newsletter which some departments are already receiving. I would also like to encourage individuals to sign up for the Newsletter by going to [http://www.heacademy.ac.uk/my_academy](http://www.heacademy.ac.uk/my_academy).

A key aspect of the HEA's work at discipline level is the promotion and dissemination of good practice in teaching and learning within the discipline community. Discipline funding can also be used to target areas where development work is most needed. Work of this nature needs to be shaped and informed by well-established discipline priorities and an up-to-date knowledge and understanding of the activities, needs, concerns and aspirations of staff working directly with students. It is also very important that practitioners working in the disciplines are aware of the diverse range of valuable services which the HEA provides. Consequently regular dialogue between HEA Discipline Leads and those working within their disciplines in the higher education (HE) sector is essential.

Over the last year this dialogue has been taking place in the HEA MSOR discipline at workshops, conferences and events and also by email. More formal consultations have taken place at meetings with the MSOR Network, the MSOR Network’s Advisory Group, and the MSOR Network’s departmental contacts. In addition, visits to departments have provided valuable opportunities to share information about good practice in MSOR and to discuss current challenges. Collectively these activities have provided many staff with information about the benefits and funding opportunities from the HEA. They have also enabled staff to acquire a greater insight into the work of the HEA MSOR discipline.

While much discussion has taken place in recent months, there is obviously scope for more. Therefore I would like to encourage staff across the full spectrum of HE roles in MSOR to get in touch and share your experiences. In this way your input will contribute to informing how the work of the HEA MSOR discipline develops, so that it can best respond to the needs of staff and students in MSOR both now and in the future.

The HEA UK travel fund provides travel funds for staff and students in HE to engage in activities which contribute to the development of teaching and learning. In 2012-13 the travel fund will support activities in the following three streams:

- students participating in learning and teaching events;
- staff presenting papers on learning and teaching practice;
- staff travelling across a national border within the UK to attend a teaching and learning event.

More detailed information about the fund can be found at [http://www.heacademy.ac.uk/travel-fund](http://www.heacademy.ac.uk/travel-fund).