Statistics plays an important role in the research methodologies, knowledge generation and solving of data-driven problems in most subjects. It is taught across a wide range of academic disciplines at undergraduate and graduate levels in the UK and elsewhere. Traditionally in the UK the statistics courses that were taught outside mathematics and statistics departments were delivered as so-called ‘service teaching’ through mathematical sciences groups within those departments, where colleagues who did the statistics teaching may, or may not, have been qualified in statistics.

However, in recent years, largely as a consequence of the changing model of Higher Education (HE) funding since the 1980s, the individuals undertaking this teaching have not been based in statistics groups in HE (see [1]). Many of them work alone without being able to discuss issues with close colleagues who also teach statistics. Often they are not trained statisticians and most have had no formal exposure to the pedagogy of statistics. Among the many problems that have faced statistics educators for many years is how they can reach these individuals and provide them with the support and collegiality that would help them to improve their statistics pedagogy and, in turn, the learning experience of their students.

At the end of April 2010 the Royal Statistical Society Centre for Statistical Education (RSSCSE) and the University of Plymouth Teaching and Learning Directorate (UoP TLD) organised a half-day event about improving the engagement of UoP students in learning statistics. The objectives were to:

- reach out to all colleagues with the responsibility for the teaching of statistics, regardless of their background;
- share experiences in teaching statistics;
- demonstrate teaching through a problem solving approach;
- present new learning and teaching resources;
- establish collaborative links between UoP statistics teachers and the RSSCSE; and,
- introduce the distance learning course that leads to the Royal Statistical Society Certificate in Teaching Statistics in HE.

The event was publicised as a joint initiative between the UoP TLD and the RSSCSE and 30 members of academic staff from a very wide range of backgrounds registered for the afternoon’s activities.

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After an introduction to the event the first session was on ‘Using a Problem Solving Approach for Teaching Statistics to non-specialists’. This presented a relatively new way of engaging students in statistics that employs teaching it using a problem solving approach. Exemplar resources were introduced with a demonstration of how further ones could be developed using a simple PowerPoint template.

The second session of the afternoon was an introduction to the teaching resources for the RSS Certificate in Teaching Statistics in HE which was designed with funding from the MSOR Network. It provides opportunities for personal development in statistics-specific pedagogy for teachers in HE institutions. This session also addressed teaching, learning and assessment issues faced by statistics lecturers through pedagogic statistical examples. Participants openly discussed common issues faced by statistics teachers and, by sharing their personal experiences, considered how these issues could be addressed.

Lively discussions took place during both of the sessions and the activities were enthusiastically received by the participants.

The third and final session consisted of obtaining oral feedback and planning for the future. Issues raised focused on how colleagues could work with the RSSCSE to develop new resources that will improve the student learning experience of statistics at Plymouth, other universities and through the HE Academy Subject Centres.

We were delighted by the responses we received from colleagues before, during and after the event. These have led us to believe that many of the issues raised and discussed at UoP may well be common to other HE institutions where statistics is taught, at any level.

Therefore the RSSCSE is keen to share the UoP experience with colleagues at other HE institutions in the UK and would welcome invitations from them to stage similar events. A key feature that led to the successful take up of this event was the active support of the UoP TLD. The RSSCSE would particularly welcome introductions to the central Teaching and Learning Support units in other universities so that a cross-university approach can be adopted to publicise and showcase the potential benefits for all colleagues who teach statistics at all levels.

Readers who would like to contact the RSSCSE to arrange for us to deliver the event described here should email the authors at john.marriott@rsscse.org.uk. There will be no charge for the RSSCSE staff staging the half-day of pedagogic activities – the MSOR Network will fund it. All we would need would be funds for travel, subsistence and, where necessary, accommodation.

References