

## KEYNOTE 1: The story of Biomeasurement:

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### ***Biography***

Dr Dawn Hawkins is a senior lecturer in the Department of Life Sciences at Anglia Ruskin University. She is the author of *Biomeasurement*, a textbook published by OUP designed to gently introduce statistical analyses to bioscience students, based on a first year undergraduate module on which she leads. In 2006 she initiated a project funded by the HEA Biosciences subject centre to produce NuMBerS (Numerical Methods for Bioscience Students), an on-line resource to support teaching and learning involving numeracy skills, and is currently on the core group supporting the SUMS project. Dawn also lectures in animal behaviour and conservation and conducts research in these areas through the Animal Behaviour Research Unit (ABRU) in Tanzania.

### ***Abstract***

Those involved in teaching and learning at HE/FE are increasingly constrained, in their ability to produce students capable of functioning fully as professionals in their subject areas, by a gap between the math skills the students have and the math skills the students need. This talk focuses on this general problem as manifested in statistical skills and biology students at Anglia Ruskin University. In the early 1990s failure rates on the introductory statistics course for biologists taught by maths specialists reached 30%: The module was not only just not closing the gap, it was widening it through damaging student motivation and confidence. Biology staff sought to address this by developing a module they called Biomeasurement which took a 'by biologists for biologists' approach which was less theoretical and more context specific. This talk describes this experience and how it has led to a textbook by OUP with an on-line resource centre and the HEA funded NuMBerS and SUMS projects. The problems solved and uncovered along the way are highlighted.