

Scottish Qualifications Authority Statistics Award: promoting statistical literacy in Scottish schools

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In a world where more and more data is being collected, there is a need for young people to learn how to analyse and report data, and to apply these skills to real world problems. Statistics was generally taught in the lower school as part of the mathematics curriculum. There is an Advanced Higher in Statistics but this does not have a high uptake and tends only to be taught in schools where a particular staff member has a personal interest in the subject. The course content is more traditional, with the emphasis on understanding the concepts, rather than on the application to real data. There are clear advantages for pupils who have a sound understanding of data, and the ability to use statistics to make sense of it, both in the workplace and across various disciplines in Higher Education.

The Statistics Award (SCQF level 6) was developed in collaboration with the SQA and Strathclyde University in an attempt to provide an opportunity for pupils to learn these skills. The emphasis of the course is on the application of statistics to real-life data and interpretation of the results in the context of the scientific study. Initially the course was designed to use Minitab for the practical sessions, however this proved problematic for schools on a limited budget. Currently the course materials are being converted to R as the preferred software package.

As a resource for candidates, a text book is in the final stages of preparation. An online resource for teachers is also being developed which includes lecture slides, examples, data and solutions with videos illustrating how the analyses should be conducted using both R and Minitab.

Keywords: Scottish Qualifications Authority, statistics, mathematics curriculum, statistical literacy

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