

## **TSG 15** Teaching and learning of statistics

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Being able to provide sound evidence-based arguments and critically evaluate data-based claims are important skills that all citizens should have. It is not surprising therefore that the study of statistics at all educational levels is gaining more students and drawing more attention than it has in the past. The study of statistics provides students with tools, skills, ideas and dispositions to use in order to react intelligently to information in the world around them. Reflecting this need to improve students' ability to think statistically, statistical literacy and reasoning are becoming part of the mainstream school and university curriculum in many countries. As a consequence, statistics education is a growing and is an exciting field of research and development. Statistics at school level is usually taught in the mathematics classroom in connection with learning probability.

We expect to discuss academic work on major issues in statistics education research, such as: (a) theoretical issues in learning and teaching statistics; (b) learning and teaching statistics in school and at the tertiary level; (c) reinforcing the connection between statistics and probability, data and chance (especially considering the current curriculum situation in several countries); (d) the emergence and development of students' statistical reasoning, thinking, and literacy, e.g., developing students' reasoning about variability, or an aggregate view of data; (e) teachers' statistical knowledge and learning, and professional development of teachers; (f) innovative learning technology in statistics education; and g) research priorities in statistics education.

The discussion will include time to reflect on the status of research in statistics education related to the various themes and will highlight areas of high priority for the statistics education research community. Topic Study Group 15

will include probabilistic aspects in learning statistics, whereas research with a specific focus on learning probability will be discussed in TSG 14.