



## **TSG 12**

# **THE TEACHING AND LEARNING OF STATISTICS**

### The Organizing Team

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In today's world rapid technological advances have facilitated the production and management of large data sets in diverse forms. Being able to create value with data by converting them to meaningful information, to critically evaluate and effectively utilize the information for decision-making, and to understand social and natural phenomena are important 21<sup>st</sup> century skills for all citizens. Thus, the importance of teaching and learning statistics as the “science of data” is increasingly gaining recognition at all educational levels. 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. Emerging issues in statistics education relate to dealing with “big data” and dealing as a “data scientist” and to the use of statistics in thinking about social changes and policy decisions and the impact of these on both the school and university curricula. In light of these trends, statistics education is a growing and exciting field of research and development that will enable us to build from the knowledge we have accumulated in the past about teaching and learning statistics to move forward in productive ways.

We expect TSG 12 to discuss academic work on major issues in statistics education research in any of the four themes:

- (1) Recent research on teaching and learning statistics in school and at the tertiary level including global trends
- (2) Development and assessment of statistical literacy, including the connection of statistics education to social and political issues

- (3) Preparation and professional development of statistics teachers and of statistics teacher educators
- (4) The impact of “big data” and technology-rich learning environments in statistics education, and the connection between learning statistics and learning data science

TSG 12 aims to provide the venue for statistics educators, teachers and researchers for presentation of research and discussion of issues on these themes. 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. The group sessions at TSG 12 will include invited and contributed papers, as well as posters. All submissions will be peer-reviewed.