

Student workshops (Years 4 to 12)
Using Data to Develop our World!
(Statistics in the Data Age)

Enthuse - Engage - Educate

Learning Areas: Maths – Science – HASS – HPE – Tech

Invaluable for Science Extension - Research Projects (& similar syllabi)!!

The why, where & how of Data, Statistics & Investigations (Inquiry Skills).

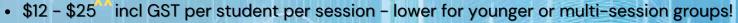
From problem formation, study design & data collection . . . **to** visual displays, statistical analysis, interpreting & reporting . . . and more!

Real-world examples & free statistical software!

Developing student-led investigations

Interactive online sessions (F2F option in Newcastle, NSW):

- Authentic learning, conceptual understanding & application!
- 1, 2, 3, 6 & 10-session options other alternatives on request (session details by Year at <u>ssapostercomp.info/workshops</u>)



EOI / Enquiries - contact: info@ssapostercomp.info

Sessions may cover (with content & number tailored to audience's age and learning area):

- Statistics, Systems thinking & Scientific Methods in practice – inspiring, accessible, real examples
- The Statistical Investigation Process / Experiments
- Problem-solving cycle & process
- Experimental / Study design key aspects,
 e.g., Sampling, Data sources, validity / reliability,
 Experiments / Observational Studies / Surveys
- What to measure: Turning questions into testable hypotheses - variables & investigations
- Data set construction

- Data Quality & Types of Variables
- Data Exploration & Visualisation
- Visual displays pitfalls & best practice
- Statistical analyses single & multiple variables / comparing groups
- Hypothesis testing t-tests, ANOVA
- Association & Regression
- Reporting interpreting and engaging
- Use of free statistical software
- ...and more!

min. 10 Senior / 20 Junior students to deliver uniquely to your class/school group - bookings per school/group (we can join your students with others to form min. audience numbers if needed)

About the presenter - Dr Peter Howley

Professor of Statistics & Systems thinking -- Award Winning Educator

STEM Professional - Statistical Consultant

ACARA Curriculum Officer -- Director -School Maths Competition

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National STA STEM Ambassador

Statistical Education Section Chair - Statistical Society of Australia
Creator - National Schools Poster Comp

See also https://ssss.org.au/about-the-presenters/



