

# STAQ Senior Science Day

Tuesday 20 November 2018 | The University of Queensland, St Lucia

Time	Physics Stream 1	Physics Stream 2	Chemistry Stream 1	Chemistry Stream 2	Biology Stream 1	Biology Stream 2	Psychology Stream 1	Psychology Stream 2
8.15-8.55	Registration and Refreshment <a href="#">50-T203</a>							
9.00-9.45	<b>Welcome, Housekeeping &amp; Keynote</b> Cooperative learning – its effect on the student experience, and how students use feedback <b>Professor Robyn Gillies &amp; Dr Cam Brooks</b> UQ Science of Learning Centre <a href="#">50-T203 (460)</a>							
9.50-10.45 Session A	Physics Content Workshop: Special Relativity <b>Dr Ian McCulloch</b> UQ School of Mathematics and Physics <a href="#">78-621</a>	Ilab: Online Radioactivity Experiments <b>Dr Gary Tuck</b> UQ School of Mathematics and Physics <a href="#">Physics Museum, Parnell Building 7</a>	Chemistry Practice Workshop: Titrations – Preparation and Practice <b>Elaine Bergmann</b> Royal Australian Chemical Institute <a href="#">68-220</a>	QCAA – Constructing Data Tests (Chemistry) <a href="#">68-214</a>	Biology Practice Workshop: Data Part 1 – Data Summary and Parametric Data Analysis <b>Dr Gurion Ang</b> UQ Science Engagement Unit <a href="#">50-C207</a>	Entrepreneurship for High Schools <b>Cayetana Martinez Ramos</b> UQ Ideas Hub <a href="#">UQ Ideas Hub</a>	Psychology in Practice – Unit 1 & 2 <b>Joey Saunders</b> Ipswich Girls' Grammar School <b>Amrita Moss</b> St Columban's College <a href="#">78-222</a>	Yes – Psychology is Science: Let Me Show You! <b>Assoc Prof Andrea Lamont-Mills</b> USQ School of Psychology and Counselling <a href="#">78-224</a>
10.50-11.15	Morning Tea (First Year Engineering Learning Centre <a href="#">FYELC</a> )							
11.20-12.15 Session B	Physics Resources Workshop <b>Matthew Crank &amp; Geoff Lewis</b> , STAQ <a href="#">78-621</a>	Analysis of Physics Data in Experimental Work <b>Dr Kirsten Hogg</b> Queensland Academy for Science, Mathematics & Technology <b>Paul Hunter</b> Charleville State High School <a href="#">78-622</a>	Hands-on Chemistry Lab – Amino acid separations by chromatography and electrophoresis <b>Dr Philip Sharpe</b> UQ School of Chemistry and Molecular Biosciences <a href="#">68-220</a>	Chemistry Content Workshop: Structure, Synthesis, Design <b>Assoc Prof Gwendolyn Lawrie</b> UQ School of Chemistry and Molecular Biosciences <a href="#">68-214</a>	Biology Practice Workshop: Ecology – Stratified Sampling, Formulae, and Applications <b>Dr Gurion Ang</b> UQ Science Engagement Unit <a href="#">50-C207 &amp; UQ Teaching Garden</a>	QCAA – Constructing Data Tests (Biology) <a href="#">50-T203</a>	Psychology Resources Workshop STAQ <a href="#">78-222</a>	Key Research Skills in Psychology: Participant research designs and data analysis (non-parametric statistics) <b>Prof Virginia Slaughter &amp; Prof Ross Cunnington</b> UQ School of Psychology <a href="#">78-224</a>
12.20-1.15 Session B	Growing skills in the middle school for the senior sciences <b>Patricia Corbin</b> Prince of Peace Lutheran College <a href="#">78-621</a>		Teacher-Facilitated Networking Forum <b>Jan Gentner</b> The School of the Future, Brisbane School Distance Education <a href="#">68-214</a>		High Stakes Examinations <b>Dr Mary Rafter &amp; Prof Robyn Gillies</b> UQ School of Education <a href="#">50-T203</a>	QCAA – Constructing Data Tests (Psychology) <a href="#">78-222</a>		
1.20-2.00	Lunch ( <a href="#">FYELC</a> )							
2.00-2.55 Session C	QCAA – Constructing Data Tests (Physics) <a href="#">78-621</a>	Physics Content Workshop: Quantum Theory <b>Dr Ian McCulloch</b> UQ School of Mathematics and Physics <a href="#">78-622</a>	Hands-on Chemistry Lab – Amino acid separations by chromatography and electrophoresis <b>Dr Philip Sharpe</b> UQ School of Chemistry and Molecular Biosciences <a href="#">68-220</a>	Chemical Management: making a move away from red tape processes <b>Mandy Timmers</b> Queensland Government Department of Education <a href="#">68-214</a>	Biology Practice Workshop: Data Part 2 - Data Analysis for Mandatory and Suggested Practicals <b>Dr Gurion Ang</b> UQ Science Engagement Unit <a href="#">50-C207</a>	3D Capture, Modelling, and Printing Made Easy <b>Nicholas Wiggins</b> UQ Library <a href="#">50-T203</a>	Psychology External Assessment – Unit 3 & 4 <b>Joey Saunders</b> Ipswich Girls' Grammar School <b>Amrita Moss</b> St Columban's College <a href="#">78-222</a>	Making Research Real: A Worked Example <b>Prof Gerry Tehan</b> USQ School of Psychology and Counselling <a href="#">78-224</a>
3.00-3.50 Session C	Teacher-Facilitated Networking Forum <b>Dr Richard Walding</b> Moreton Bay College <b>Patricia Corbin</b> Prince of Peace Lutheran College <a href="#">78-621</a>	The Science Olympiad <b>Deb Smith</b> Australian Science Innovations <b>Manjekah Dunn</b> Australian Science Olympiads Ambassador <a href="#">78-622</a>		Chemistry Content Workshop: Structure, Synthesis, Design <b>Assoc Prof Gwendolyn Lawrie</b> UQ School of Chemistry and Molecular Biosciences <a href="#">68-214</a>	MyScope Microscopy in Schools <b>Professor Roger Wepf</b> UQ Centre for Microscopy and Microanalysis <a href="#">50-C207</a>	Teacher-Facilitated Networking Forum <b>Wendy McDonald</b> Stuartholme School <b>Sally Hart</b> St Joseph's College Gregory Terrace <a href="#">50-T203</a>	Teacher-Facilitated Networking Forum <b>Joey Saunders</b> Ipswich Girls' Grammar School <b>Amrita Moss</b> St Columban's College <a href="#">78-222</a>	Student Learning in Science <b>Dr Kay Colthorpe &amp; Dr Louise Ainscough</b> UQ School of Biomedical Sciences <a href="#">78-224</a>
3.55-4.30	Drinks and Networking ( <a href="#">FYELC</a> )							

UQ Science Ambassadors will escort participants to the various rooms.

Special note for **Psychology teachers**: attend Session A Workshop 5 + Session B Workshop 10 for complete coverage of data analyses expected in your syllabus.

## Abstracts

### Session A: 9.50am-10.45am

#### Workshop 1

Title	<b>Physics Content Workshop: Special Relativity</b>
Presenter	<b>Dr Ian McCulloch, UQ School of Mathematics and Physics</b>
Abstract	This session covers content on special relativity relevant to Unit 4 of the senior Physics syllabus.
Keywords	<i>relativity</i>
Relevance	Physics Unit 4 Topic 1

#### Workshop 2

Title	<b>ilab: Online Radioactivity Experiments</b>
Presenter	<b>Dr Gary Tuck, UQ School of Mathematics and Physics</b>
Abstract	A joint collaboration with MIT, the ilab online radioactivity experiment in physics is freely accessible for anyone to set parameters and download data. These units are housed in the UQ Physics museum. This workshop will be an introduction to radioactivity and how senior teachers can access this resource.
Keywords	<i>Radioactivity, alpha, beta, gamma, aluminium, lead</i>
Relevance	Physics Unit 1 Topic 2

#### Workshop 3

Title	<b>Chemistry Practice Workshop: Titrations – Preparation and Practice</b>
Presenter	<b>Elaine Bergmann, Royal Australian Chemical Institute</b>
Abstract	With the inclusion of titration as a mandatory practical in the new senior Chemistry syllabus, it is vital that students are given the opportunity to learn this technique correctly and safely. In this hands-on workshop participants will learn correct protocols and techniques and develop an understanding of the rationale for these. Instruction and practice on basic techniques will be followed by a focus on the finer points that contribute to greater accuracy and precision.
Keywords	<i>Titration</i>
Relevance	Chemistry Units 1 to 4

#### Workshop 4

Title	<b>QCAA – Constructing Data Tests (Chemistry)</b>
QCAA officers will lead participants through activities focusing on how to correctly classify items when constructing data tests. There will also be an opportunity for Q&A about the implementation of the new QCE system.	

#### Workshop 5

Title	<b>Biology Practice Workshop: Data Part 1 - Data Summary and Parametric Data Analysis</b>
Presenter	<b>Dr Gurion Ang, UQ Science Engagement Unit</b>
Abstract	This is a session valuable for teachers who have not attended previous offerings on data analysis and interpretation by UQ. We will go through data summary and parametric data analysis using Microsoft Excel. You will need to bring along a laptop (Windows or Mac) with Microsoft Excel 2013 and up.  Special note for <b>Psychology teachers</b> : attend this workshop, and then Session B Workshop 10 for complete coverage of data analyses expected in your syllabus.
Keywords	<i>P-value interpretation, t-test, G-test, regression</i>
Relevance	Biology Units 1 to 4 and IA1

**Workshop 6**

Title	<b>Entrepreneurship for High Schools</b>
Presenter	<b>Cayetana Martinez, Entrepreneurship &amp; Relationships Manager, UQ Ideas Hub</b>
Abstract	We'll share the work, tools and experiences that inform our Discovery program. We'll share some background about Discovery, and show how the tools and examples can encourage and improve entrepreneurship in class. It will highlight the importance of having an entrepreneurial mindset and how to teach this in high schools.
Keywords	<i>entrepreneurship, extra curricular, business, innovation</i>

**Workshop 7**

Title	<b>Psychology in Practice – Unit 1 and 2 (Part 1)</b>
Presenter	<b>Joey Saunders, Ipswich Girls' Grammar School Amrita Moss, St Columban's College</b>
Abstract	In the new senior syllabus and especially since psychology is a brand new subject, the delivery and timing of the content delivery can be daunting. In this workshop, resources and planning for Unit 1 and 2 of the QCAA Psychology syllabus will be discussed. By the end of the session, you will have some base resources to get you started and a possible plan for next year's Unit 1 and 2 cohort.
Keywords	<i>resources, data test, student experiment, research investigation</i>
Relevance	Psychology Units 1 and 2

**Workshop 8**

Title	<b>Yes – Psychology is Science: Let Me Show You!</b>
Presenter	<b>Assoc Prof Andrea Lamont-Mills, USQ School of Psychology and Counselling</b>
Abstract	Students who take Psychology in Year 11 and 12 will actively engage in the scientific research process including collecting, analysing, and interpreting data by utilising psychological research skills. This session will introduce you to how psychology is a science, the scientific approach, and what are the key psychology research skills that students need to develop. You will take away a clear understanding of psychological science inquiry processes and skills.
Keywords	<i>research skills, science, research methods</i>
Relevance	Psychology Units 1 to 4

Session B: see timings below

**Workshop 1: 11.20am-12.15pm**

Title	<b>Physics Resources Workshop</b>
STAQ representatives Matthew Crank and Geoff Lewis will discuss STAQ resources available for senior Physics.	

**Workshop 2: 12.20pm-1.15pm**

Title	<b>Growing skills in the middle school for the senior sciences</b>
Presenter	<b>Patricia Corbin, Prince of Peace Lutheran College</b>
Abstract	The new senior syllabi have redefined the main assessment instruments and the skills required to be successful in each. In addition the mandated experiments and their associated rigour require students to have good manipulative skills. In this workshop the changes to the assessment instrument responses – in particular to the new student investigation and research task – will be compared and contrasted with the EEL and ERT requirements. The impact of these on the middle school will be explored and a model of development for these skills across year levels will be presented. Participants will leave with an understanding of the differences between syllabi and their impact on the learning requirements of middle school students to make successful transitions to the senior sciences.
Keywords	<i>middle school; senior syllabi, student investigation, research task</i>

**Workshop 3: 11.20am-1.15pm**

Title	<b>Analysis of Physics Data in Experimental Work</b>
Presenter	<b>Dr Kirsten Hogg, Queensland Academy for Science, Mathematics &amp; Technology Mr Paul Hunter, Charleville State High School</b>
Abstract	The new Physics syllabus requires a different approach to data processing and uncertainty propagation than previously used. We will demonstrate appropriate data processing, uncertainty propagation, linearisation and graphing techniques. Participants will access raw data samples from actual physics experiments. The data processing steps will be modelled. Scaffolds to use with students will be provided. Participants will have the opportunity to learn/refresh/practice data processing techniques relevant to the new syllabus.
Keywords	<i>Linearization, data processing, uncertainties</i>
Relevance	Physics Unit 1 to 4

**Workshop 4: 11.20am-1.15pm**

Title	<b>Hands-on Chemistry Lab – Amino acid separations by chromatography and electrophoresis</b>
Presenter	<b>Dr Philip Sharpe, UQ School of Chemistry and Molecular Biosciences</b>
Abstract	The new Chemistry syllabus has a suggested practical of separation and identification of amino acid mixtures using chromatography and/or electrophoresis. Participants will get to perform hands-on separations using these methods and see the advantages and disadvantages of different stains. After this session, you will be able to confidently demonstrate these techniques to your students and be aware of typical issues with this type of experiment and how to avoid the pitfalls.
Keywords	<i>amino acids, chromatography, electrophoresis</i>
Relevance	Chemistry Unit 4 Topic 2

**Workshop 5: 11.20am-12.15pm**

Title	<b>Chemistry Content Workshop: Structure, Synthesis, Design</b>
Presenter	<b>Assoc Prof Gwen Lawrie, UQ School of Chemistry and Molecular Biosciences</b>
Abstract	In unit 4 of the Senior Chemistry Syllabus, students are expected to evaluate a claim by setting a valid research question related to the structure and properties of organic materials. In this session, you will develop multiple strategies to engage your students with the structure-function relationships involving simple molecules and macromolecules including: simple demonstrations, physical models, online visualisations tools. You will develop a range of stimuli to support your

	students in developing and evaluating their research questions linked to searchable evidence within multiple contexts (biomacromolecules, polymers, green chemistry).
Keywords	<i>structure-function relationships, macromolecules, synthesis, research investigation</i>
Relevance	Chemistry Unit 4 and IA3

#### Workshop 6: 12.20pm-1.15pm

<b>Title</b>	<b>Teacher-Facilitated Networking Forum</b>
Chairs	<b>Jan Gentner, The School of the Future, Brisbane School Distance Education</b> <b>Steven Smith, School TBC</b>
Connect and collaborate with colleagues implementing the same syllabus.	

#### Workshop 7: 11.20am-1.15pm

<b>Title</b>	<b>Biology Practice Workshop: Ecology – Stratified Sampling, Formulae &amp; Applications</b>
Presenter	<b>Dr Gurion Ang, UQ Science Engagement Unit</b>
Abstract	Refresh the old and new material in Unit 3 of the Biology syllabus. This workshop will occur at the UQ Teaching Garden where we will refresh field manipulative techniques, data collection, and provide suggestions on to use the data to cover key ecology concepts (both new and old). Gather ideas for field excursions, practical classroom activities, and learn how to apply the data collected into mathematical models. Wear comfortable shoes and bring sun protection.
Keywords	<i>ecology, abiotic factors, Simpson's diversity index, Lincoln's index</i>
Relevance	Biology Unit 3

#### Workshop 8: 11.20am-12.15pm

<b>Title</b>	<b>QCAA – Constructing Data Tests (Biology)</b>
QCAA officers will lead participants through activities focusing on how to correctly classify items when constructing data tests. There will also be an opportunity for Q&A about the implementation of the new QCE system.	

#### Workshop 9: 12.20pm-1.15pm

<b>Title</b>	<b>High Stakes Examinations</b>
Presenter	<b>Dr Mary Rafter, UQ School of Education</b> <b>Prof Robyn Gillies, UQ School of Education</b>
Abstract	The re-introduction of external high-stakes exams in the Senior Science Subjects presents a significant dilemma for teachers and students as it is nearly half a century since the last public university entrance examinations in Queensland. This workshop explores some of the potential emotional and pedagogical issues that require attention and provides suggestions for strategies to approach this essentially new challenge.
Keywords	<i>external assessment, high stakes examination</i>

#### Workshop 10: 11.20am-12.15pm

<b>Title</b>	<b>Psychology in Practice – Unit 1 and 2 (Part 2)</b>
Presenter	<b>Joey Saunders, Ipswich Girls' Grammar School</b> <b>Amrita Moss, St Columban's College</b>
Abstract	In the new senior syllabus and especially since psychology is a brand new subject, the delivery and timing of the content delivery can be daunting. In this workshop, resources and planning for Unit 1 and 2 of the QCAA Psychology syllabus will be discussed. By the end of the session, you will have some base resources to get you started and a possible plan for next year's Unit 1 and 2 cohort.
Keywords	<i>resources, data test, student experiment, research investigation</i>
Relevance	Psychology Units 1 and 2

**Workshop 11: 12.20pm-1.15pm**

Title	<b>QCAA – Constructing Data Tests (Psychology)</b>
QCAA officers will lead participants through activities focusing on how to correctly classify items when constructing data tests. There will also be an opportunity for Q&A about the implementation of the new QCE system.	

**Workshop 12: 11.20am-1.15pm**

Title	<b>Key Research Skills in Psychology: Participant research designs and data analysis (non-parametric statistics)</b>
Presenter	<b>Prof Virginia Slaughter &amp; Prof Ross Cunnington, UQ School of Psychology</b>
Abstract	<p>We cover Key Research Skills in Psychology that apply across curriculum Units 1-4, focusing on research methods that are more specific to psychology for measurement and analysis of human behaviour. We will work through examples of research designs for human participants, reliability/validity for psychology experiments, and data analysis beyond that in the other sciences (e.g. non-parametric Mann-Whitney, Wilcoxon tests). You will gain understanding of research design and methodology specific to psychology experiments, and will be able to conduct and demonstrate non-parametric analysis for psychological data in freely available software.</p> <p>Special note for <b>Psychology teachers</b>: attend Session A Workshop 5, followed by this workshop for complete coverage of data analyses expected in your syllabus.</p>
Keywords	<i>Psychology research methodology, non-parametric statistical analysis, reliability and validity</i>
Relevance	Psychology Units 1 to 4

**Session C: see timings below**

**Workshop 1: 2.00pm-2.55pm**

Title	<b>QCAA – Constructing Data Tests (Physics)</b>
QCAA officers will lead participants through activities focusing on how to correctly classify items when constructing data tests. There will also be an opportunity for Q&A about the implementation of the new QCE system.	

**Workshop 2: 3.00pm-3.50pm**

Title	<b>Teacher-Facilitated Networking Forum</b>
Chairs	<b>Dr Richard Walding, Moreton Bay College Patricia Corbin, Prince of Peace Lutheran College</b>
Connect and collaborate with colleagues implementing the same syllabus.	

**Workshop 3: 2.00pm-2.55pm**

Title	<b>Physics Content Workshop: Quantum Theory</b>
Presenter	<b>Dr Ian McCulloch, UQ School of Mathematics and Physics</b>
Abstract	This session covers content on quantum theory relevant to Unit 4 of the senior Physics syllabus.
Keywords	<i>quantum theory</i>
Relevance	Physics Unit 4 Topic 2

**Workshop 4: 3.00pm-3.50pm**

Title	<b>The Science Olympiad</b>
Presenter	<b>Debra Smith, Australian Science Innovations Chair Manjekah Dunn, Australian Science Olympiad Ambassador</b>
Abstract	There are few resources which are designed specifically to support as well as challenge high achieving students. The <a href="#">Australian Science Olympiads</a> program provides an opportunity for high-achieving students to represent Australia. In this session participants will be given an overview of the program and the opportunities it gives students. They will also explore the online resources available. The online resources which have been specifically developed to support students learning at a higher than school level are freely available to all Australian students and teachers.
Keywords	<i>Australian Science Olympiads, resources, high-achievers, STEM excellence, educators</i>

**Workshop 5: 2.00pm-3.50pm**

Title	<b>Hands-on Chemistry Lab – Amino acid separations by chromatography and electrophoresis</b>
Presenter	<b>Dr Philip Sharpe, UQ School of Chemistry and Molecular Biosciences</b>
Abstract	The new Chemistry syllabus has a suggested practical of separation and identification of amino acid mixtures using chromatography and/or electrophoresis. Participants will get to perform hands-on separations using these methods and see the advantages and disadvantages of different stains. After this session, you will be able to confidently demonstrate these techniques to your students and be aware of typical issues with this type of experiment and how to avoid the pitfalls.
Keywords	<i>amino acids, chromatography, electrophoresis</i>
Relevance	Chemistry Unit 4 Topic 2

**Workshop 6: 2.00pm-2.55pm**

Title	<b>Chemical Management: making a move away from red tape processes</b>
Presenter	<b>Mandy Timmers, Queensland Government Department of Education</b>
Abstract	This session introduces a new way of managing chemicals in schools that reduces the administrative burden of red tape processes to meet compliance requirements. On initial

	application, the system can reduce around 60% of administration, allowing chemical users to focus more of their time and effort on using chemicals safely.
--	--

#### Workshop 7: 3.00pm-3.50pm

Title	<b>Chemistry Content Workshop: Structure, Synthesis, Design</b>
Presenter	<b>Assoc Prof Gwen Lawrie, UQ School of Chemistry and Molecular Biosciences</b>
Abstract	In unit 4 of the Senior Chemistry Syllabus, students are expected to evaluate a claim by setting a valid research question related to the structure and properties of organic materials. In this session, you will develop multiple strategies to engage your students with the structure-function relationships involving simple molecules and macromolecules including: simple demonstrations, physical models, online visualisations tools. You will develop a range of stimuli to support your students in developing and evaluating their research questions linked to searchable evidence within multiple contexts (biomacromolecules, polymers, green chemistry).
Keywords	<i>structure-function relationships, macromolecules, synthesis, research investigation</i>
Relevance	Chemistry Unit 4 and IA3

#### Workshop 8: 2.00pm-2.55pm

Title	<b>Biology Practice Workshop: Data Part 2 - Data Analysis for Mandatory and Suggested Practicals</b>
Presenter	<b>Dr Gurion Ang, UQ Science Engagement Unit</b>
Abstract	We will review the mandatory and suggested practicals for the senior Biology syllabus, determine the type of data collected from these practicals, and elect the best data tests to summarise, analyse, and interpret the data. You will need to bring along a laptop (Windows or Mac) with Microsoft Excel 2013 and up.
Keywords	<i>P-value interpretation, t-test, G-test, regression</i>
Relevance	Biology Units 1 to 4 and IA1

#### Workshop 9: 3.00pm-3.50pm

Title	<b>MyScope Microscopy in Schools</b>
Presenter	<b>Professor Roger Wepf, UQ Centre for Microscopy and Microanalysis</b>
Abstract	MyScope is an online teaching and learning resource you may wish to use. It may be of help to you before undertaking training with the Centre or as a refresher at any stage in your use of techniques. MyScope includes modules on scanning electron microscopy, transmission electron microscopy, confocal microscopy, scanning probe/ atomic force microscopy, microanalysis and X-ray diffraction. It provides theory, diagrams, and videos, flowcharts for sample preparation, and virtual microscopes / equipment. This is a good place to start if you want to know more about techniques and use of equipment.
Keywords	<i>microscopy, online teaching, scanning electron microscopy, transmission electron microscopy</i>

#### Workshop 10: 2.00pm-2.55pm

Title	<b>3D Capture, Modelling, and Printing Made Easy</b>
Presenter	<b>Nicholas Wiggins, UQ Library</b>
Abstract	3D Capture and Printing is often perceived as an incredible technology well out of reach for your average user, when it can actually be easily achieved. This workshop will talk about the present and future of 3D printing, and demonstrate how easy it can be to create and print 3D models using photogrammetry. Learn how to create 3D models using a digital camera, know what you need to know about 3D printing, and you may have the chance to be 3D scanned.
Keywords	<i>3D printing, photogrammetry, 3D modelling, 3D scanning</i>



**Workshop 11: 3.00pm-3.50pm**

Title	<b>Teacher-Facilitated Networking Forum</b>
Chairs	<b>Wendy McDonald, Stuartholme School</b> <b>Sally Hart, St Joseph's College Gregory Terrace</b>
Connect and collaborate with colleagues implementing the same syllabus.	

**Workshop 12: 2.00pm-2.55pm**

Title	<b>Psychology External Examination: Unit 3 and 4</b>
Presenter	<b>Joey Saunders, Ipswich Girls' Grammar School</b> <b>Amrita Moss, St Columban's College</b>
Abstract	In the psychology syllabus is content dense especially in the Unit 3 and 4 sections. Completing the content with enough time for revision can increase success in external exams. In this workshop, resources and planning for Unit 3 and 4 of the QCAA Psychology syllabus will be discussed and advice and tips for external assessments will be given. By the end of the session, you will have some base resources to get you started and study methods that can aid students for external assessment.
Keywords	<i>Resources, external assessment</i>
Relevance	Psychology Units 3 and 4

**Workshop 13: 3.00pm-3.50pm**

Title	<b>Teacher-Facilitated Networking Forum</b>
Chairs	<b>Joey Saunders, Ipswich Girls' Grammar School</b> <b>Amrita Moss, St Columban's College</b>
Connect and collaborate with colleagues implementing the same syllabus.	

**Workshop 14: 2.00pm-2.55pm**

Title	<b>Making Research Real: A Worked Example</b>
Presenter	<b>Prof Gerry Tehan, USQ School of Psychology and Counselling</b>
Abstract	Students who take psychology in year 11 and 12 will actively engage in the scientific research process thereby developing and utilising psychological research skills. This session will, using the mandatory practical in Topic 3 of the syllabus, describe the processes of deriving hypotheses; designing relevant methodologies; presenting, analysing, and interpreting evidence', and drawing appropriate conclusions. You will take away a clear understanding of how your research question determines specific methodologies and the specific statistical tests you use.
Keywords	<i>research skills, science, research methods</i>
Relevance	Psychology Units 1 to 4

**Workshop 15: 3.00pm-3.50pm**

Title	<b>Student Learning in Science</b>
Presenter	<b>Dr Kay Colthorpe, UQ School of Biomedical Sciences</b> <b>Dr Louise Ainscough, UQ School of Biomedical Sciences</b>
Abstract	Students find the transition to the independent, self-directed study required at university challenging, particularly in science. Early development of their metacognition and self-regulated learning skills may aid this transition. We will discuss methods to promote the development of students' metacognitive and self-regulated learning skills and demonstrate the use of 'meta-learning' assessment tasks, showing benefits they may provide. Participants will have opportunities to develop and discuss practical strategies for increasing support for the development of their students' metacognition and self-regulation skills, through reflective questions.
Keywords	<i>metacognition, transition to university, self-regulated learning</i>