

ACSME 2019 POSTERS – www.ACSME.edu.au

Abercrombie Building (H70) – The University of Sydney



THE UNIVERSITY OF
SYDNEY



Australian Council
of Deans of Science

Themes:

1. The role of disciplinary depth in STEM education in an increasingly technological world
2. Interdisciplinarity, creativity and empathy in the curriculum
- [3. Value of global experiences and perspectives – no posters]*
4. Undergraduate research through projects, peer-to-peer learning and group based approaches
5. Education focussed academic roles in the “education ecosystem”
6. Our Student Stories

ACSME 2019 POSTERS Submission number: TITLE	Institution – Authors	Theme 1 - 6
13464: What medical laboratory science students say about attending lectures and accessing lecture recordings	QUT - Sheila Doggrell	1
13466: Scientific writing: enhancing science literacy through online interactive modules	Flinders Uni - Narelle Hunter	1
13475: Multidisciplinary Lab – does it work?	Uni Newcastle - Michael Bowyer, Bill Budd, Michelle Duffy, Clovia Holdsworth, John L Holdsworth, Timothy Kirkman, Bonnie McBain, Brett Neilan, Liam Phelan, Richard Yu	1
13479: Flick and flip: flipped approach improves student engagement with the learning experience	Flinders Uni - Masha Smallhorn	1
13506: Science Museums as an educator’s tool for learning to teach primary school science	Monash Uni - Megan June Runacres, Christopher Thompson, Tina Overton	1
13515: Using student self-assessment to steer feedback	Monash Uni - Klaudia Budzyn, Osuri Manatunga, Nirma Samarawickrema, Elizabeth Davis	1
13517: How do especially designed worksheets assist students to solve tutorial problems?	USYD - Jeremy Lavielle, Arunee Arunee Eambaipreuk, Vicky Tzioumis, Manjula Sharma	1
13518: Questions as a detective story: good clues, red herrings, and student reflections	USYD - Petr Maximovich Lebedev, Manjula Devi Sharma	1
13519: The AEQ-PhysPrac: a tool to measure students’ emotional engagement with physics practicals	USYD - Aesha Piyush Bhansali, Elizabeth Angstmann, Manjula Sharma	1
13520: The benefits of applying theory in undergraduate stem education: a student’s experience	Uni Newcastle - Benjamin Petersen	1
13552: Challenges and opportunities in the new blended learning paradigm	UQ - Sanjay Vasudeva, Kay Colthorpe, Stephen Anderson	1
13554: Modelling waves: integrating technology and model based inquiry in undergraduate physics experiment	USYD - Srividya Durga Kota, Manjula Sharma	1
13555: Harnessing digital technologies to engage students with open investigations in school science	USYD - Srividya Durga Kota, Scott Cornish, Manjula Sharma	1

13556: Design of Worksheets for Problem Solving-Basic Structures Which Support Cognitive and Behavioural Processes	USYD - Arunee Eambaipreuk, Jeremy Lavielle, Narumon Emarat, Kwan Arayathanitkul, Manjula Devi Sharma	1
13557: Using animations to connect macroscopic, sub-microscopic, and symbolic representations of the world	Monash Uni - Elizabeth Yuriev, Trayder Thomas, Tamir Dingjan, Michelle McIntosh	1
13560: The role of online resources in assessment and self- study	Uni Canberra - Karen M Altamore, Tamsin Kelly	1
13567: Characteristics of problem solving in spectroscopy: productive and unproductive pathways	Monash Uni - Kimberly Vo, Elizabeth Yuriev, Martin Scanlon	1
13569: What does it take to redesign a degree? A case study	Monash Uni - Stefan Gregor Huth, Elizabeth Yuriev, Jennifer L. Short, Laurence Orlando, Michelle P. McIntosh	1
13573: Measuring the association between student performance and mathematics support	WSU - Gizem Intepe, Don Shearman	1
13603: Knowledge of Astronomical Scale: Measurement and Evaluation	UNSW, U Cambridge, U Capetown - Christine Lindstrom, Megan C. Engel, Vinesh M. Rajpaul, Morten Brendehaug, Saalih Allie	1
13606: ICT + RBL + TPCK + UDL + OER = innovative instructional design for blended undergraduate chemistry courses	Monash Uni, UQ, U Philippines - Charisse Tongson Reyes	1
13618: Using online tools to develop numerical competence in block mode teaching	Victoria Uni - Calum Downie, Rudi Klein, Pushpa Sinnayah	1
13619: Comparing Student Cohorts between Years in First-Year Chemistry Assessments	Uni Adelaide - Jacob Rhys Marchant, Simon Pyke, Natalie Williamson	1
13632: Exploration of students' representational fluency in translating between multimodal representations of molecule structures	UQ - Paris Renzella, Kim Nichols, Gwendolyn Lawrie	1
13633: Enhancing Student Short Answer Question Performance Using Exemplars Of Varying Complexity	UQ - Lesley Lluka, Mark Williams, Prasad Chunduri	1
13637: Dissecting the tension between ethics and learning objectives: the (virtual) reality of animal dissections	USYD - Francesca van den Berg, Timothy Lee, Hong-dao Nguyen, Osu Lilje, Matthew Pye	1
13642: Building an interactive online textbook: A tool at our fingertips	JCU - Ranjna Kapoor, Pam Megaw, Vicki Dunk, Harrison Glenn, Kate Miller, David Simcock	1
14016: Can 3D Printing & Cheminformatics Enhance Student Understanding in Biochemistry?	Bond Uni - Anna Lohning	1
13538: A case study detailing the scientific knowledge built during construction of a multimodal product	Uni Wollongong - Helen Georgiou, Wendy Nielsen	2
13540: Collaborative learning leads to greater student-student relationships, teamwork and connectedness	Monash Uni - Scott Clarke	2
13542: Transitioning from Law to STEM	USYD - Chanel Tattler	2
13576: A pilot study on how context-based learning impacts students environmental awareness	Monash Uni - Sara Kyne, Christopher Thompson	2
13580: Harnessing the power of open-source software for research-integrated learning and assessment	UTS - Yvonne Davila, Aaron Greenville, Brad Murray	2

13583: The bush medicine project: an authentic cross-discipline, cross-course and cross-campus research project as a learning experience	Federation Uni - Benjamin Matthew Long, Lara Wakeling, David Bean, Nina Fotinatos, Andrew Greenhill, Mark Myers, Nicholas Shultz, Simone Louwhoff	2
13588: "What's biochem got to do with it?" Student evaluation of context-based undergraduate biochemistry for health science (cubhs) instruction	Monash Uni - Katherine Fernandez, Tina Overton, Christopher Thompson, Nirma Samarawickrema	2
13590: Understanding the impact of careers focused classes on undergraduate science students	Monash Uni - Angela Ziebell	2
13593: Extending the boundaries of non-Indigenous science to embrace the cultural curriculum by creating a living compendium of practice	USYD - Rebecca Cross, Rosanne Quinnell, Jaime Gongora	2
13605: An interdisciplinary approach to foundation study in the Bachelor of Science (Extended)	Uni Melbourne - Syd Boydell, David Collis, Lisa Godinho, Michelle Livett, Mick Moylan, Daniel Pyke	2
13620: Implementing strategies to engage students across disciplines as partners to support 3D object based learning	USYD - Rosanne Quinnell, Rebecca Plumbe, Michael Rampe	2
13623: The Scholarship of Transdisciplinary Spaces: Art Meets Science	UQ - Margaret Weneger, Rebecca LeBard, Julie Ayre, Rosanne Quinnell, Stephanie Beames	2
13624: Situating Sustainable Development within Secondary Chemistry Education via Systems Thinking – A Depth Study Approach	Deakin Uni, Wollondilly Anglican College - Andrew Christopher Eaton, Seamus Delaney, Madeleine Schultz	2
13499: Do students understand how undergraduate research experiences improve their employability?	UQ - Lauren Jane Carpenter, Bindi Nguyen, Susan Rowland	4
13547: Are we meeting student expectations of a cure?	UQ - Samuel Holland, Justin Ridge	4
13599: First year students and research: A constructivist approach	Victoria Uni - Calum Downie	4
13533: Exploring primary teacher education students' self-perception of readiness to teach primary mathematics	UNDA - Thuan Thai, Gregory Hine	5
13578: Blended delivery of laboratory experiences: changing roles for education focussed academics	UQ - Jack Tsang-Hsing Wang, Thisun BH Piyasena, Gloria D Woods	5
13621: Education focussed academics of the 21st Century and beyond	Uni SA - Anthea Leigh Fudge, Karina Riggs	5
13628: From the inside out – sticking points and initiative to mobilizing education academics in science	UQ - Louise J Kuchel	5
13634: Novel educational ecosystems: the role of connectivity and access to resources shaping the teaching-focused academic landscape	USYD - Francesca van den Berg, Timothy Lee, Hong-dao Nguyen, Osu Lilje, Matthew Pye	5

13474: Improving Evaluative Judgement: Countering the Lake Wobegon Effect	Deakin Uni - Kieran Fergus Lim	6
13513: Barriers to effect feedback: Student and Staff perspectives	Monash Uni - Jessica Gibbons, Scott Clarke	6
13530: Let's BEE Scientists: Youth co-creating ecological science on pollinators	USYD - Amelie Mareva Vanderstock, Rebecca Cross, Tanya Latt	6
13550: Attitudes and Motivations for Studying STEM courses and Pursuing a STEM Career	USYD - Dimitris Karis, Siegbert Schmid, Alice Motion	6
13561: Perceptions of preparedness for first year chemistry studies	Monash Uni - Elizabeth Wan Theng Leong, Christopher Thompson, Stephen Danczak	6
13562: Student Experiences as they Journey through Blended Learning	UQ - Gloria Deborah Woods, Branda Le, Gwendolyn Lawrie, Jack Wang	6
13566: What makes you say that?	U Sydney, U Wollongong - Tom Gordon, Helen Georgiou, Manjula Devvi Sharma	6
13571: Assessing First Year Biology Students' Maths Attitudes: Does HSC Maths Foster Confidence?	UNSW - Rebecca LeBard, USYD – Matthew Pye, Rosanne Quinnell	6
13575: Changes in perceived and experienced challenges and learning strategies throughout the second year transition	UQ - Judit Kibedi	6
13584: Effectiveness of enrichment programs in cultivating stem interest in year nine female students	Flinders Uni - Maria Parappilly, Stephanie Mayes	6
13638: Name Not Shame: Empathy and respect in STEMM interdisciplinary units towards diverse cohorts – the transgender student voice	USYD – Matthew Pye, Timothy Lee, Jack Crane and Amy McCarthy	6
13643: Are students learning what was intended? Evaluating progress using student perception surveys	USYD - Hong Dao Nguyen, Christopher Hammang, Timothy Lee	6
13497: The use of mobile devices to improve the practice of scientific thinking and the scientific process	UNSW - Michael Kasumovic	iZone
13548: Interweaving interdisciplinary experiential learning with co-building solutions with students	USYD - Viji Venkataramani, Jim Cook, Philip Poronnik	iZone
13601: Trial implementation of Microsoft 365 teams and Onenote in teaching chemistry laboratory classes	ECU - Magdalena Wajrak	iZone
13611: Investigating the Use of Non-Digital Visual Interaction Tools in Stem Education	Deakin Uni & 3M Australia - Madeleine Schultz, William Woo	iZone
13612: Creative game-based scenario podcasts to improve the learning experience and outcomes for first-year physiology students	Victoria Uni - Chris Lillico, Kathy Tangalakis, Alan Hayes, Rudi Klein	iZone
13981: Transforming First Year Chemistry Laboratory Assessment to Enhance the Student Experience	UQ & Learning Science Ltd UK - Andrew Allsebrook, Iain Thistlethwaite and Nic Charlton	iZone
CENGAGE: Helping your students learn, the way they learn best	Cengage Learning Australia - Daniel Baxter-Wright, Jodie Payne and Matt Tonkis	iZone

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