



22nd Biennial WCGTC World Conference

20 – 23 JULY
2017
SYDNEY, AUSTRALIA

Global Perspectives in Gifted Education



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The 22nd Biennial World Conference of the WCGTC
Global Perspectives in Gifted Education

20-23 July, 2017
UNSW Sydney, Australia

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World Council for Gifted and Talented Children Worldwide Advocacy for Our Gifted Children

Dear Colleagues and Friends,

On behalf of the World Council for Gifted and Talented Children, I am very pleased to welcome all of you to participate in the 22nd Biennial World Conference, hosted by the School of Education at the University of New South Wales, in the beautiful city of Sydney, Australia.

The theme of this conference is Global Perspectives in Gifted Education. It will be a great opportunity for networking and information exchanges among participants from around the world. The purpose is to come together to discuss and propose solutions for challenges that our gifted and talented children face worldwide. There will be a broad range of keynote speakers, invited speakers, as well as workshops, symposia, parallel sessions, and poster sessions in which innovative research, experiences, resources, and best educational practices will be shared.

Organising a conference like this is not an easy job. I would like to take this opportunity to thank the members of the Local Organising Committee, the WCGTC Executive Committee, the Executive Administrator of WCGTC Headquarters, the Academic Committee, the staff in the School of Education at UNSW, and the volunteers who have been devoting themselves to ensure a successful conference.

I would also like to thank each participant for making the effort to be here and for your commitment to the gifted and talented children across the globe.

I wish you all an exciting and memorable experience! Enjoy the conference and the friendly city of Sydney.

Denise Fleith

Denise S. Fleith
WCGTC President
Brasilia, Brazil

Foreword

Welcome to the 2017 22nd Biennial WCGTC World Gifted Conference!

The University of New South Wales, through its School of Education and GERRIC, is honoured to host this biennial celebration of the international gifted education community. We are proud of our long history in gifted education, particularly through the work of Emeritus Professor Miraca Gross and others, and the establishment of GERRIC as a focal point for research and practice in gifted education since the early 1990s. Reflecting the theme of “Global Perspectives in Gifted Education”, the four-day event is expected to bring together more than 600 participants from around the world to discuss, exchange, and debate ideas in gifted education.

The rich and exciting program that is planned incorporates multiple keynote, paper, symposium and poster presentations on a diverse array of topic areas across 13 different strands (i.e., giftedness and talent, creativity, identification, social and emotional needs, differentiation, twice-exceptional learners, guidance, diversity, parenting, schooling alternatives, advocacy, leadership development, programming, and educational technology) in gifted education. We are therefore confident that there will be something for everyone!

We are particularly honoured to have some of the most internationally recognised experts in the field speak at the event, including: Dr Chester Finn of Stanford University and Thomas B. Fordham Institute, Dr Seon-Young Lee of Seoul National University, Dr Jane Piirto of Ashland University, Professor Karen Rogers of the University of St Thomas, Mark Scott AO of the New South Wales Department of Education, Professor Kirsi Tirri of the University of Helsinki, Professor Helen Watt of Monash University, and Professor James Watters of the Queensland University of Technology.

We take this opportunity to thank the World Council for Gifted and Talented Children, members of the Local Organising Committee, staff at the School of Education Professional Learning Office, and members of the academic committee for their support and assistance with the organisation and running of the conference. Finally, we thank you for your participation, and hope that you make the most of this invaluable opportunity to engage with others with a passion for gifted education from around the world!

The University of New South Wales



Awards & Scholarships

In conjunction with the WCGTC biennial conference, the Executive Committee of the World Council presents awards in four different areas of recognition: distinguished service, creativity, research, and leadership. Applications for these awards are submitted to WCGTC Headquarters, and the Scholarship & Awards Committee assumes the responsibility for selecting the recipients.

The WCGTC Scholarship & Awards Committee has reviewed the nominations and announced the three World Conference Awards that will be officially presented at the 2017 World Conference in Sydney, including:

The International Creativity Award

Jane Piirto

The International Award for Research

Bruce Shore

A. Harry Passow Award for International Leadership in Gifted Education

Eunice Alencar

In any given conference year, the nominated Scholarship and Awards committee tries to provide some financial assistance to a small number of individuals who may otherwise not be able to attend the world conference. Normally this is done through application. After a review of the applicants, and dependent on their statements of need, and other criteria, a small number may be selected and offered one of a number of scholarships.

The 2017 recipients are:

Zahirul Islam (Jahangirnagar University, Bangladesh)

Fitriana Lubis (University of Indonesia)

Svenja Mattheis (University of Koblenz-Landau, Germany)



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Inspiration, Motivation and Creativity:
Leading the Way to Giftedness

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For more information,
please visit our website: www.apcg2018.com



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Leadership with a
Teacher Leadership
concentration in
Gifted Education and
Talent Development*



For additional information, contact
Julia Link Roberts at julia.roberts@wku.edu

wku.edu/gifted

Executive Committee



Denise Fleith

President

Psychology, Associate Professor, Institute of Psychology University of Brasilia
Brasilia, Brazil



Leonie Kronborg

Vice President

Senior Lecturer/Coordinator of Postgraduate Studies in Gifted Education Monash University
Clayton, Victoria, Australia



Humphrey Obora

Secretary

President, African Federation for Gifted and Talented
Nairobi, Kenya



Julia Link Roberts

Treasurer

Mahurin Professor of Gifted Studies and Executive Director of The Center for Gifted Studies, Western Kentucky University
Executive Director of the Carol Martin Gatton Academy of Mathematics and Science
Bowling Green, KY



Umit Davasligil

Member

Professor, Educational Psychology, Gifted Education Maltese University
Istanbul, Turkey



Margaret Sutherland

Member

Senior Lecturer in Social Justice Place and Lifelong Education University of Glasgow
Glasgow, Scotland



Tyler Clark

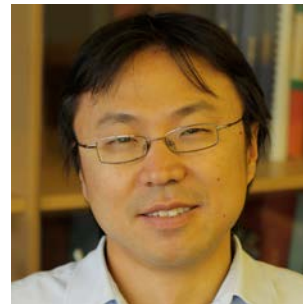
Executive Administrator

World Council for Gifted and Talented Children
Western Kentucky University
Bowling Green, KY

Local Conference Committee



Jennifer Jolly
Conference Manager
Senior Lecturer, GERRIC
Senior Research Fellow
UNSW School of Education



Jae Yup Jung
Vice Conference Manager
Senior Lecturer, GERRIC
Senior Research Fellow
UNSW School of Education



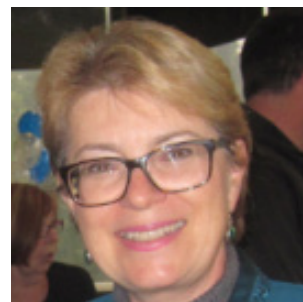
Susen Smith
Senior Lecturer
Senior Lecturer, GERRIC
Senior Research Fellow
UNSW School of Education



Debbi Sundry
Member
Professional Learning
Coordinator
UNSW School of Education



Melinda Gindy
Member
High School Music Teacher
Co-Founder & President,
Gifted Families Support
Group Inc.



Zdena Pethers
Member
New South Wales
Department of Education



Christine Ireland
Member

22nd Biennial WCGTC World Conference 2017

(This schedule is subject to change) (Highlighted names will serve as session chairs)

Each parallel session will last 25 minutes including questions. Authors followed by an asterisk (*) are not presenting at the World Conference. Information listed here was accurate at the time of print. For a complete list of abstracts, presenters and additional conference details, please visit www.worldgifted2017.com.

Thursday 20 July 2017

Registration in Clancy Foyer from 2-4pm

(Clancy Auditorium) Opening Ceremony

5-6pm (Clancy Auditorium) 1.1 Keynote Dr Jim Watters – Queensland University of Technology Contextualising learning in STEM: A realistic pathway for teachers of gifted students. This session will be followed by a **Welcome Reception** for all conference participants from 6-7.30pm

Friday 21 July 2017

Registration in Clancy Foyer from 7.45am (NSW Australian attendees will need to sign on each day to gain their full NESA accreditation)

9-9.30am (Clancy Auditorium) 2.1 Keynote Mark Scott AO – New South Wales Department of Education Delivering on the promise of potential

Mathews 101	Mathews 102	Mathews 103	Mathews 104	Mathews 230	Mathews 231	Mathews 232	Mathews A	Mathews B	Mathews C	Mathews D
<p>Parallel Sessions</p> <p>2.2.1 ... An exploration of gender identity and talent development of high achieving females</p> <p>Kate Lafferty</p> <p>Popular culture and the aspirations of rural gifted girls</p> <p>Denise Wood</p> <p>2.2.3 Theory into practice at a P-12 girls' school</p> <p>Kathy Harrison, Jo Ryan*, Kate Lafferty</p>	<p>Parallel Sessions</p> <p>2.3.1 Teacher as researcher: Empathy as the first step ...</p> <p>Desiree Gilbert</p> <p>2.3.2 Doctoral level education: Impact and influences</p> <p>Norma Hafenstein, Julia Watson, Justine Lopez, Kristina Hesbol</p> <p>2.3.3 An analysis of student-to-student discussion posts in an online graduate gifted education class</p> <p>Joyce Miller</p>	<p>Parallel Sessions</p> <p>2.4.1 Integrating technology and simulations that transform the gifted curriculum ...</p> <p>Gillian Eriksson</p> <p>2.4.2 Holistic assessment and technology ...</p> <p>Trevor Tebbis</p> <p>2.4.3 Developing an online learning environment that effectively ...</p> <p>presentation cancelled ...</p> <p>...y students</p> <p>stuart Fankhauser</p>	<p>Parallel Sessions</p> <p>2.5.1 Classical Chinese Children Primer ...</p> <p>Caroline Kwok</p> <p>2.5.2 Depth and complexity in the curriculum for gifted students</p> <p>Mirella Olivier</p> <p>2.5.3 Early childhood educator attitudes towards giftedness and early entry</p> <p>Mimi Wellisch</p>	<p>Parallel Sessions</p> <p>2.6.1 Mindsets and the development of talented dance students</p> <p>Penny Van Deur</p> <p>2.6.2 Developing musical talent into elite performance ...</p> <p>Rachel White</p> <p>2.6.3 The unique barometers of giftedness through the eyes of the highly & profoundly gifted</p> <p>Vanessa R. Wood, Miraca Gross</p>	<p>Parallel Sessions</p> <p>2.7.1 Roles of giftedness, gender, and age in overexcitabilities ...</p> <p>Yifan Lyu</p> <p>2.7.2 Existential group work: Meeting affective needs for the gifted</p> <p>Paula Christensen</p> <p>2.7.3 Social and emotional needs of gifted children and the sixth language of love</p> <p>Lynn Berresford</p>	<p>Symposium</p> <p>2.8.1 Global partnerships to develop creative problem solving</p> <p>C-June Maker, Myra Wearne, Tracy Riley, Faisal Alamiri, Melinda Webber, Katrina Sylva</p> <p>Gabrielle Oslington, Michelle Meltzer, Belinda Cooley, Louise Dutton</p>	<p>Parallel Sessions</p> <p>2.10.1 Change management for gifted programming</p> <p>Rachel Lam</p> <p>2.10.2 When policy is not enough: One advocate's perspective</p> <p>Elizabeth Singer</p> <p>2.10.3 Ethics of care in the construction of giftedness</p> <p>Melanie Wong</p>	<p>Parallel Sessions</p> <p>2.11.1 Leading and teaching for adolescent talent development ...</p> <p>Kate Mitchell, Leonie Kronborg</p> <p>2.11.2 Examining self-determination in graduates who entered college early</p> <p>Nancy Hertzog, Rachel U. Mun*, Sakhavat Mammadov*</p> <p>2.11.3 ... Sharing evaluation of an education response to young gifted children</p> <p>Carolyn Giles, Anne Grant</p>		

11-11:30am | Morning Tea (Mathews Pavilions)

11:30am-12:45pm Diversity		G&T		Creativity		Identification		Programming		Mathews A		Mathews B		Leadership		Social/Emotional	
	Mathews 101	Mathews 103	Mathews 104	Mathews 230	Mathews 231	Mathews 232	Mathews A	Mathews B	Mathews C	Mathews D							
	Parallel Sessions 2.2.4 Top-performing math students' achievement and achievement motivation around the world ... Lena Kristina Keller, Franzis Preckel*, Jacquelynne Sue Eccles*, Martin Brunner*	Parallel Sessions 2.3.4 GT carpe diem: Empowering self-advocacy Deborah Douglas 2.3.5 Global use of gifted students' drawn images to personalise educational differentiation Dorothy Armstrong 2.3.6 Like a thousand lizards on a flatbed truck: Integrating chaos and curricula for gifted learners Constance (Connie) Brown	Parallel Sessions 2.4.4 Creative thinking in a regular classroom ... Dave Camilleri 2.4.5 Fostering creativity in teaching gifted learners mathematics Dimakatso Agnes Mohokare 2.4.6 Global interdependence is a reality! April Dennis	Parallel Sessions 2.5.4 T2: Identification protocol in public schools Andrew Therrien 2.5.5 A toolbox for rigorous identification: Preschool – Year 12 Angela Foulds-Cook, Jasna Poeszus 2.5.6 Identifying the gifted when valid and reliable measures don't exist and a shortage of resources Leticia Jaquez, Roman Jaquez*	Parallel Sessions 2.6.4 ... Innovating curricula for high ability learners Letchimi Devi Ponnusamy, Ruilin Elizabeth Koh* 2.6.5 Planning and delivering learning for verbally gifted students in secondary school Shane Kamsner, Carolyn Giles 2.6.6 Developing a growth mindset culture amongst academically gifted and highly able secondary students Sue Harrop	Parallel Sessions 2.7.4 Navigating a post-truth world: The affective impact of introducing literary theory to gifted students James Koh 2.7.5 Reading: Novel course in gifted children's education Qiong Wang 2.7.6 Reading and the gifted: Developing a program of reading with a global perspective Robert (Bob) Seney	Symposium 2.8.4 Publishing your work in gifted education: Ask the journal editors Jae Yup Jung , Leonie Kronborg, Michael S. Matthews	Parallel Sessions 2.10.4 ... Perceptions of leaders and leadership Seon-Young Lee, Eunjoo Boo, Yun-Kyoung Kim, Eunsun Kim*, Taehee Kim*, Hyunuk Park* 2.10.5 Developing leadership identity: Universal needs necessary for cultural connections Justine Lopez, Norma Hafenstein, Kristina Hesbol 2.10.6 ... Student voice in secondary school ... Thomas Velican , Abel Muller	Parallel Sessions 2.11.4 Personal best goal setting and self-regulation for engagement ... Susan Smith , Ben North, Andrew Martin* 2.11.5 Do ability grouping and acceleration damage self-esteem? ... Miraca Gross 2.11.6 ... Gifted students reflect on their senior high school experiences with high-stakes assessment Ben North, Susan Smith, Miraca Gross								
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12-12.45:1:45pm | Lunch (Mathews Pavilions)

1-45:3:00pm Guidance		G&T		Twice-exceptional		STEM		Programming		Social/Emotional		Programming			
Mathews 101		Mathews 103		Mathews 230		Mathews 231		Mathews A		Mathews B		Mathews C			
Parallel Sessions 2.1.7 Stressful events experienced by academically high-achieving females before the onset of disordered eating Jennifer Krafchek, Leonie Kronborg		Parallel Sessions 2.3.7 Narrative inquiry into practitioners' perspectives of gifted education in South Australia Lesley Henderson 2.3.8 Designing and assessment of standards-based professional development in gifted education Debbie Troclair		Parallel Sessions 2.5.7 Twice-exceptionality – opportunities and possibilities: Three mixed-methods research studies Michelle Bannister-Tyrrell , MaryAnne Haines, Anne O'Donnell-Ostini 2.5.8 Methods for increasing twice-exceptionality efficacy presentation cancelled		Parallel Sessions 2.6.7 The use of Arduinos in STEM education: A hands-on approach Hui Leng Tan, Puay Hong Yeo 2.6.8 STEM career pathway through research mentoring programme ... Noriah Mohd. Ishak, Rorinda Yusof 2.6.9 An innovative pedagogic model that integrates scientific enrichment with intra-inter personal dimension ... Orni Meerabaum-Salant , Bruria Haberman*, Sarah Pollack*		Symposium 2.8.7 Do short term programs have a place in providing for gifted children? Helen Dudeney , Lyndal Reid, Carolyn Giles, Adrienne Alexander, Anne Grant		Symposium 2.9.7 Problem solvers today – leaders tomorrow! April Dennis , Niranjan Casinader, Nicola Desoe		Parallel Sessions 2.10.7 Mindfulness and development: Exploring the role of mindfulness in supporting students Laurie Croft 2.10.8 In practice, not just in theory: A developmental approach to supporting social and emotional growth in gifted students Anna Meuli 2.10.9 Being with like-minds: A mixed methods study of gifted children's perspectives Tracy Riley , Deborah Walker		Parallel Sessions 2.11.7 Using conceptual frameworks, tiered inquiry and assessment to engage gifted learners in mixed ability classrooms Bronwyn MacLeod 2.11.8 Learning through geographical field inquiry for high-ability learners Rosinda Chan 2.11.9 Raising the quality of gifted and talented education through interdisciplinary learning Ju Ah Kim, Mi Kyung Lee*, Daniel Suh*	
2.1.8 ... Counseling the gifted and talented Wendy Stewart		2.3.9 ... Publishing in Gifted and Talented International Leonie Kronborg, C. June Maker, Nielsen Pereira, Ann Robinson*, Barbara Kerr*		2.5.9 ... Case studies of twice-exceptional students' growth in an all-gifted school Kimm Doherty, Melissa Bilash		2.6.9 An innovative pedagogic model that integrates scientific enrichment with intra-inter personal dimension ... Orni Meerabaum-Salant , Bruria Haberman*, Sarah Pollack*		2.7.9 Challenging Project: Applying design-thinking ... to improve outcomes for gifted students Janet Farrall, Alice Duffield, Desiree Gilbert, Lesley Henderson		2.8.9 Raising the quality of gifted and talented education through interdisciplinary learning Ju Ah Kim, Mi Kyung Lee*, Daniel Suh*		2.10.9 Being with like-minds: A mixed methods study of gifted children's perspectives Tracy Riley , Deborah Walker		2.11.9 Raising the quality of gifted and talented education through interdisciplinary learning Ju Ah Kim, Mi Kyung Lee*, Daniel Suh*	

3-3:30pm | Afternoon Break (Mathews Pavilions)

3-4pm (Clancy Foyer) Poster Presentations – For a full list of poster presentations, please see the conference website www.worldgifted2017

4-5pm (Clancy Auditorium) 2.2 Keynote Professor Kirsti Tirri – University of Helsinki Holistic Perspectives on Gifted Education for the 21st Century

5:15pm (Clancy Auditorium) General Members Meeting – All members of the WCGTC are invited to attend the General Members meeting. 6:00pm-6:45pm Delegates Meeting – Meeting for WCGTC members who have been elected to serve as Delegates for their country.

Saturday 22 July 2017

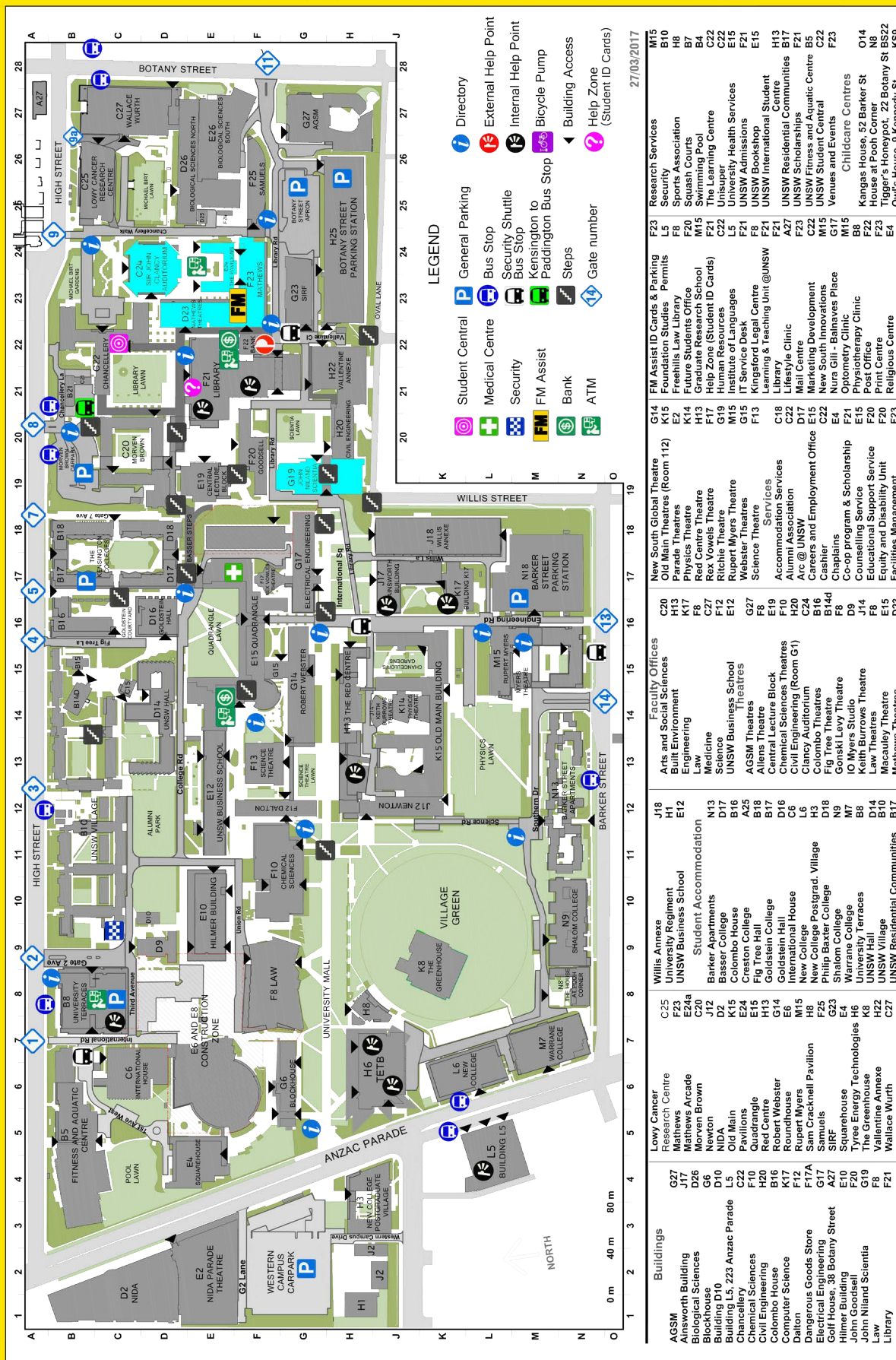
Registration at back of Clancy from 7.45am (NSW Australian attendees will need to sign on each day to gain their full NESA accreditation)

8:30-9:30am (Clancy Auditorium) 3.1 Keynote Professor Helen Watt – Monash University Harnessing Girls' and Women's Talent Potentials in STEM Domains

9:45-11am G&T		G&T	Identification	Programming	Mathews 230	Mathews 231	Social/Emotional	Mathews A	Mathews B	Underachievement	Guidance
	Mathews 102 Parallel Sessions 3.2.1 Forensics@Kristin: Who Dunit? Raewyn Casey 3.2.2 Architectural workshop for high talented children: Experience and method Ana Gallego 3.2.3 1 + 1 + 4 = Thousands of kids Deborah Walker	Mathews 103 Parallel Sessions 3.3.1 Russia: State of talents Andrew Barkin 3.3.2 Balancing the gap between the accelerated and talented students in Arabain schools Faisal Alamiri 3.3.3 Cancelled	Mathews 104 Parallel Sessions 3.4.1 Re-envisioning culturally proficient leadership to expand student success for all ... Kristina Hesbol, Norma Hafenstein, Justine Lopez, Julia Watson 3.4.2 Identifying the gifted learner in a rural context Carmel Meehan 3.4.3 Gifted identification in rural and remote areas Christine Ireland	Mathews 230 Parallel Sessions 3.5.1 Philosophy for children.... Craig Davidson, Rebecca Napier 3.5.2 The IB's Middle Years Program: A good fit for gifted learners in Qatar? Jeffrey MacRaild 3.5.3 Special schools for the gifted in Saudi Arabia, Jordan, and Egypt: Past, present and future Nasser Almutairi	Mathews 231 Parallel Sessions 3.6.1 Developing a system-wide approach to gifted education Craig Wattam, Sally Brock, Christine Chapple 3.6.2 A holistic model for serving the needs of identified gifted students Kathryn Grubbs, Nancy Hertzog 3.6.3 Gifted education programming: One size does not fit all – a vision from the coalface Nancy Wines, Geraldine Townend	Mathews 232 Parallel Sessions 3.7.1 Human raising with relationships in mind: The scientific way Katerina Morjanoff 3.7.2 ... Supporting the sensitive gifted child Michelle Kang 3.7.3 Talent development, career exploration, work habits, meaning in life, and connectedness of Chinese adolescents Mantak Yuen, Jesus Alfonso D. Datu*, Shui-wai Wong*, Josephine Yau*, Norma C. Gysbers*	Mathews A Symposium 3.8.1 A cross-cultural comparison of leading school models for engaging intellectually able students: USA and Australia Leonie Kronborg, Julia Link Roberts, Toni Meath, Kate Mitchell, Roger Page	Mathews B Symposium 3.9.1 Professional learning in gifted education: Models, research, and practice Laurie Croft, Connie Phelps, Wendy Behrens, Kimberley Chandler, Christine Weber, Dina Brulles	Mathews C Parallel Sessions 3.10.1 Elements that help or hinder the achievement of academically gifted and talented secondary school boys Graeme Miller 3.10.2 Identification of underachievement in ability grouped settings Ruth Phillips 3.10.3 The effect of two interventions on high ability underachievers in an independent school Lye Chan Long, Adrienne Erwin	Mathews D Parallel Sessions 3.11.1 ... Revisiting attitudes of adolescent gifted girls and boys presentation cancelled Jane Jarvis 3.11.2 ... Experiencing chronic boredom and acute frustration Fiona Smith, Dominic Westbrook* 3.11.3 ... A qualitative study exploring career development experiences of gifted adolescent girls Rebecca Napier	

Kensington Campus

World Gifted Conference Venues



Further maps, including toilets and accessibility can be found at <http://www.facilities.unsw.edu.au/maps/maps.html>

General Information

Registration

The registration desk, located in the foyer of the John Clancy Auditorium Building, will open at 2:00pm Thursday and 7:30am Friday. On Saturday and Sunday, registration will be at the back of Clancy Auditorium. There is an international and an Australian sign in area.

Lanyards

For security reasons, all attendees must wear their lanyard and name badge at all times throughout the conference. Only badge-holders will have access to:

- Conference sessions and presentations
- Food
- Networking spaces

If you misplace your name badge please advise a staff member or the registration desk.

Refreshments

Lunch and morning/afternoon tea are included in the registration fee. They will be served in The Mathews Pavilions. If you have pre-ordered special dietary meals, your meal will be located at the Dietary Requirements table.

A variety of additional food and beverage outlets are also available on Campus. For more information online, visit bit.ly/aspc-retail

WiFi

Please register for WiFi using the link and passphrase you received by email prior to the beginning of the conference. When asked for a passphrase, use: World (case sensitive). If you are having trouble, the WiFi helpdesk will be set up on Thursday 2pm - 4:30pm and Friday 8am - 11am at the back of Clancy Auditorium.

Connect to the **uniwide** network.

Venues

The conference is held at UNSW, Kensington Campus.

Mathews Building	
Level One	Rooms 101, 102, 103, 104 Go past Mathews Pavilions, turn left, and use the stairs or lift to go down one floor. Toilets: On L1, up ramp next to Rooms 103/104. Turn right or left.
Level Two	Rooms 230, 231, 232 Go past Mathews Pavilions and turn right. Toilets: Next to the lift and stairs, located behind Mathews Pavilions.
Theatres A, B, C, D	A and B: To the right of the Pavilions entrance, right and left respectively. C and D: To the right of the Mathews Pavilions entrance, up the stairs in Mathews Theatres Building (no wheelchair access). Toilets: Use Level Two toilets (next to the lift and stairs located behind Mathews Pavilions).
John Clancy Auditorium	
Ground Level	Main Auditorium. Toilets: located in the foyer.
Parent Networking Space	
Mathews Building Level One foyer	During lunch breaks, there will be a space dedicated for parents of gifted children to network. See page 9 for more details.
Food will be served in Mathews Pavilions	
John Niland Scientia Building	
Level One	Tyree Room (for the Gala Dinner)

A map of accessible routes and parking locations is available online at <http://fmttoolbox.unsw.edu.au/comms/KensingtonAccessibility.pdf>.

Security

In the case of an emergency, call UNSW Security immediately on 9385 6666. International phones add (+61 2).

Getting Around

Opal travel cards

To use public transport in Sydney, you will need to purchase an Opal card. You can do so at the airport, convenience stores and on campus at various locations. The closest option to the conference venue is WH Smith, which is located at the top of the Basser Stairs or at Randwick Junction. You may also purchase an opal card in advance at www.opal.com.au.

Light rail

Sydney is currently in the process of getting a new light rail network. As a consequence, transport to and from UNSW, and certain bus stops, has been altered. You can find updated information on the latest changes at www.lightrail.unsw.edu.au/news.

Common Bus Routes

UNSW to Coogee Beach	M50, 370 from Botany Street
UNSW to Bondi Beach	400 to Bondi Junction then 333, 381, 380 to Bondi Beach from High Street/Randwick Junction
UNSW to Maroubra Beach	396 from Anzac Parade
UNSW to Central Train Station	891, M50, 393, 395, M10 from Anzac Parade and High St.

Find further information on getting to and from UNSW and plan your trip at: <http://www.facilities.unsw.edu.au/getting-uni/buses-trains-ferries>.

Taxi and Uber

Taxis Combined - 131 008 Silver Service - 133 100 Premier Cabs - 131 017
Alternatively, download the Uber app.

ATM, Bank and Retail Services

The Commonwealth Bank has a branch located between the Library and Mathews Building. There are ATMs (cash withdrawal machines) located as per the map on page 8. Supermarkets and shops are a 10 minute walk to Randwick Junction up High Street. Further information and map references can be found at: <http://www.facilities.unsw.edu.au/food-retail/food-and-retail-campus>.

Coffee

UNSW has a variety of cafes located around the Campus that are open from early morning to late afternoon. The Coffee Cart near the Library is a popular option among staff and students. You can find further information at <http://www.facilities.unsw.edu.au/food-retail/food-and-retail-campus>.

Medical Services

There is a pharmacy and medical centre located at The Quad (map reference E15) on middle Campus or in Randwick Junction. For any emergency medical situations please alert the conference staff or UNSW Security.

Preconference Workshops

Thursday 20th July (Registrations only open for those attending the full conference)

Registration: 8 - 9am in Mathews Pavilions.

Morning workshops run from 9am - 12pm

Mathews 101	Dr Seon-Young Lee	Nurturing future creative leaders in the classroom
Mathews 102	Dr Leonie Kronborg	Professional learning for teachers who motivate and support diverse gifted and highly able students for talent development: Research on what they know and what works in their teaching
Mathews 103	Professor Emerita Karen B. Rogers	Brushing up your program of services for gifted and talented learners: What does it take to ignite the “ideal” program?
Mathews 104	Dr Jane Piirto	How to embed creativity into the classroom
Mathews 105	Dr Margaret Sutherland	Using what young children already know to excite, challenge and develop learners

Lunch: 12pm - 12:45pm. Lunch is provided only for individuals participating in both morning and afternoon preconference workshops.

Afternoon workshops run from 12:45 - 3:45pm

Mathews 101	Dr Klaus Urban	Creativity: Assessing, challenging, nurturing
Mathews 102	Sue Prior	Global perspectives in gifted education: Does $2E = 3C^2$?
Mathews 103	Dr Dorothy Sisk Dr Michele Kane	Planting seeds of mindfulness: Cultivating the conditions for gifted kids to bloom and flourish intellectually, emotionally and spiritually
Mathews 104	Dr Julia Link Roberts	Talent development: Stages, steps, and strategies

The preconference is followed directly by the opening ceremony in John Clancy Auditorium. Registrants would have received their conference material already and can make their way straight into the auditorium at 3:45pm.

Did you know?

1. What is the name given to a group of kangaroos?
2. How many seats are in the Sydney Opera House Concert Hall?
3. How many people died during the construction of the Sydney Harbour Bridge?
4. How many stairs are in the UNSW Basser Steps?
5. Where does the annual City2Surf run finish?
6. If you were running from Dubbo to Uluru, in which direction would you be running?

Answers:
1. Mob or troop
2. 2,679
3. 16 in total, 2 fell
4. 106
5. Bondi Beach
6. North-west

The World Council for Gifted and Talented Children originated 40 years ago upon the inspiration of a prominent British educator of the gifted, Henry Collis. As Director of the National Association for Gifted Children, already having set up branches all over England, in Hamburg, and in Belfast, it was his vision to unite the educators of the gifted around the world, who were already convening at national levels. This vision evolved into a non-profit organisation of educators in the field of gifted education that spans the globe today.

Current and Former Presidents

Denise Fleith	(2017)	Barbara Clark	(1997-2001)
Leslie Graves	(2013-2017)	Wu-Tien Wu	(1993-1997)
Taisir Subhi Yamin	(2009-2013)	Norah Maier	(1989-1993)
Den-Mo Tsai	(2005-2009)	A. Harry Passow	(1985-1989)
Kalus Urban	(2001-2005)	James Gallagher	(1981-1985)

The first world conference was held in 1975 in the Royal College of Surgeons in Lincoln's Inn, London, England. At this conference, in response to a proposal urging participants to join in a worldwide initiative to form an organisation to advocate for the gifted children of the world, 150 educators in the field became members of this founding organisation.

The World Council was officially incorporated and registered in the state of Delaware as a non-profit organisation on March 30, 1976. The officers at the time were President Dan Bitan, Vice-President Henry Collis, Executive Vice-President Alexis DuPont DeBie, joint Secretaries Dorothy Sisk and Elizabeth Neuman, and Treasurer Bob Swain.

A major undertaking was discussed at the San Francisco meeting: the creation of a journal. Levcho Zdravchev agreed to edit and publish a journal for the WCGTC, which was entitled *GATE: Gifted and Talented Education*. He published three issues of GATE, absorbing the cost of the journal through his Bulgarian office.

In the 1990s, under the editorship of John Feldhusen, the name was changed to *Gifted and Talented International*. The current editors-in-chief are Franzis Preckel and Leonie Kronborg.

Headquarters

The WCGTC Headquarters has been housed in several different locations since its incorporation in 1976. These have been primarily in the United States, with a brief stint in Canada. The Headquarters is currently located at WKU in Kentucky, USA.

For further information, please contact:

Tyler Clark, Executive Administrator

World Council for Gifted and Talented Children

Western Kentucky University

1906 College Heights Blvd #11030

Bowling Green, KY 42101-1030, USA

Email: headquarters@world-gifted.org

Phone: 1-270-745-4123

Fax: 1-270-745-4124

Keynote Speakers



Dr Jim Watters

Queensland University of Technology

James (Jim) Watters is an Adjunct Professor in Education at QUT. Jim draws on over 30 years of experience as a science teacher and science teacher educator. His particular interest has been in the education of students gifted in science and mathematics (more recently rebadged as STEM). Jim has run enrichment programmes, provided professional development, advised government on policy, supervised graduate students in gifted education, taught pre-service and in-service teachers in gifted education courses and published internationally in gifted education. He has a strong commitment to apply research to practice. His contributions to gifted education were recognised through the award of Eminent Australian in Gifted Education by the AAEGT.

Keynote 1.1

Contextualising learning in STEM: A realistic pathway for teachers of gifted students

Internationally there has been an enhanced focus on increasing student uptake of science, technology, engineering and mathematics (STEM) subjects in higher education. However, for decades enrolment in mathematics and science at school level has been declining or stagnant. STEM subjects are appealing for many gifted students in the early years of schooling. Gifted students show extreme levels of curiosity about the natural world, are highly motivated, examine problems holistically and show advanced analytical reasoning skills. However, for many this curiosity and interest wanes as they progress through school. Although gifted education has provided many models and strategies to engage highly able students, these are rarely adopted. We can however turn to fundamental research in STEM education to understand ways to engage and develop sustained interest in STEM subjects.

This presentation examines approaches advocated by STEM education research which are being implemented in many jurisdictions that show potential to address the waning interest of gifted students.



Mark Scott AO

New South Wales Department of Education

Mark Scott AO is the Secretary of the NSW Department of Education and has a distinguished record in public service, education and the media. The department is the largest education system in Australia, operating 2,200 public schools for almost 800,000 students.

Mark's career began as a teacher in Sydney. He built on his interest in education with senior policy and leadership positions with two NSW education ministers, Terry Metherell and Virginia Chadwick. Mark held a number of senior editorial roles at Fairfax, including Education Editor of The Sydney Morning Herald and Editor-in-Chief of metropolitan, regional and community newspapers.

Mark was named an Officer of the Order of Australia in 2011 for distinguished service to media and communications, and to the community through advisory and governance roles with a range of social justice and educational bodies. Mark holds a Bachelor of Arts, a Diploma of Education and a Master of Arts from the University of Sydney; and a Master of Public Administration from Harvard University. He has also been awarded honorary doctorates from the University of Sydney and UNSW.

Keynote 2.1

Delivering on the promise of potential

NSW public schools have an established reputation for the provision of quality education to all students and a history of creating opportunities for gifted students, regardless of background. This has shaped the future of many prominent high-achievers among our alumni who are proud graduates of public education. Still, we face the challenge of preparing young minds to meet the uncertainties, trials, and tasks of the 21st century. The NSW Department of Education's commitment is to lift the achievement of our brightest students to ensure that all students can achieve their potential.

The Department's new policy to identify and extend our brightest minds aims to ensure our students can deliver on the promise of their potential. The policy has been developed through an analysis of student achievement data, a review of research and an extensive consultation process. It will provide strong support and guidance to teachers to enhance learning and teaching in every classroom.



Professor Kirsi Tirri

University of Helsinki

Kirsi Tirri is a Professor of Education and Research Director at the Department of Teacher Education at the University of Helsinki, Finland. She is the Chair of Doctoral Programme SEDUCE (School, Education, Society and Culture) and the Chairman of Finnish Academy of Science and Letters. She is also a visiting Professor at St. John's University, New York, USA. Kirsi has been the President of ECHA (European Council for High Ability) during 2008-2012 and the President of the SIG International Studies at AERA (American Educational Research Association) during 2010-2013. She serves on 13 Editorial Boards of educational journals. She has supervised 21 doctoral dissertations in education and theology and mentored many postdoctoral students who are now professors and researchers in education. She has led the Finnish team in many national and international research projects.

Keynote 2.2

Holistic perspectives on gifted education for the 21st century

In many European countries, such as Finland, education aims to support the development of the whole person rather than merely the cognitive domain. This kind of education acknowledges the importance of social and affective domains in student development, including their emotional and spiritual concerns. In this presentation Professor Tirri will emphasise three perspectives that are important also for the holistic education for gifted students in the 21st century. They include values and worldviews that help young people to find purpose into their lives; growth mindset for learning that promotes creative thinking and ethical skills that are needed to live a moral life.



Professor Helen Watt

Monash University

Helen Watt is Professor in the Faculty of Education, Monash University, and Australian Research Council Fellow 2011–2015. Previously she served at the Universities of Michigan, Western Sydney, Sydney, and Macquarie. Her interests include STEM motivation and engagement, gendered educational and occupational choices, and quantitative analyses for developmental data. Her work has implications for redressing the gender imbalance in mathematics and science-related careers, and supporting career development for beginning teachers. Helen is founder and coordinator of Network Gender & STEM, Associate Editor for *AERA Open*, and on the editorial boards of the *International Journal of Quantitative Research in Education*, *Contemporary Educational Psychology*, and *Australian Journal of Education*.

Keynote 3.1

Harnessing girls' and women's talent potentials in STEM domains

Despite more than 35 years of research and policy aimed at increasing girls' and women's participation in STEM (science, technology, engineering and mathematics), why do gender differences stubbornly persist? The Australian Industry Group (2015) cautioned, "the pipeline of STEM skills to the workforce remains perilous" because participation in sciences and advanced mathematics at school and university is in decline, participation is not comparable with other nations, and our students underperform in major international studies. Gender differences in STEM enrolments and aspirations prematurely restrict girls'/women's career options, having ramifications for women's later wellbeing from economic and psychological perspectives. The 2025 strategy put out by the Office of the Chief Scientist (2013) stipulates improved female participation as a key action. Despite equivalent abilities, in Australia women currently earn 5% of the doctoral degrees in physical sciences, 11% in chemical science and 50% in biology (Dobson, 2012). At the Bachelor level, 53% of degrees went to women in the natural and physical sciences, 13% in information technology, and 15% in engineering and related technologies (Australian Government Department of Education and Training, 2014).

In this address, Professor Watt will share key findings from the STEPS Study (www.stepsstudy.org), in which she has been following longitudinal samples of youth over the past two decades, to examine whether and how girls/boys are differently motivated in STEM; how motivations matter differently in directing them towards particular purposes and aspirations; and, how features of their learning environments can promote or diminish their motivations.



Dr Chester Finn

Senior Fellow, The Hoover Institution, Stanford University, and Distinguished Senior Fellow & President Emeritus, Thomas B. Fordham Institute

Chester E. Finn Jr. is distinguished senior fellow and president Emeritus at the Thomas B. Fordham Institute. He is a scholar, educator, and public servant who has been at the forefront of the national education debate for thirty-five years. He was born and raised in Ohio and received his doctorate from Harvard in education policy. President from 1997 to 2014 of the Thomas B. Fordham Institute, where he remains as a distinguished senior fellow, he is also a senior fellow at Stanford University's Hoover Institution where he chaired Hoover's Koret Task Force on K-12 Education. A member of the Maryland State Board of Education, he is the author of over twenty books and more than 400 articles; his work has appeared in publications such as *The Christian Science Monitor*, *Education Week*, *Harvard Business Review*, *The New York Times*, *The Wall Street Journal*, *Washington Post*, and *The Weekly Standard*. Chester is the recipient of many awards and holds an honorary doctorate from Colgate University. He and his wife, Renu Virmani, a physician, have two grown children and three adorable granddaughters. They live in Chevy Chase, MD.

Keynote 3.2

Gifted but disadvantaged

Dr Finn's study of challenges in the education of high-ability children in the USA and eleven other countries (<http://hepg.org/hep-home/books/failing-our-brightest-kids>) made vivid – though not surprising – that urgent issues in gifted education involve students from disadvantaged backgrounds. These children depend on the formal education system to help them realise their potential, while youngsters from prosperous, educated families often benefit from multiple options and knowledgeable “navigators” through the education system. PISA data from every country show far greater representation of upper SES children among high achievers (though the gap is far wider in some countries – including the U.S., than others.) Remedies may include universal screening, targeted outreach, early opportunities, acceleration, special schools and classes (with entry apportioned across communities), additional out-of-school resources and counseling, and mastery-based progress through the primary-secondary curriculum. Assembling the resources and will to focus on disadvantaged children is difficult, however, as public pressure for gifted education is most likely to come from more fortunate parents and their representatives.



Dr Jane Piirto

Ashland University

Jane Piirto has helped thousands of teachers and administrators to gain their bachelor's, master's and doctoral degrees and endorsements. She is a published and award-winning poet and novelist as well as Distinguished Scholar for the National Association for Gifted Children, a Torrance Creativity Award recipient, and a recipient of the Lifetime Achievement Award for the Mensa Education and Research Association. Among her books are 3 editions of *Talented Children and Adults: Their Development and Education*; 2 editions of *Understanding Those Who Create*; "My Teeming Brain": *Understanding Creativity Writers*; *Understanding Creativity*; *Creativity for 21st Century Skills*; and her latest book (2014) is *Organic Creativity in the Classroom: Teaching to Intuition in Academics and in the Arts*. Among her literary work is *Saunas: Collected Poems*, and *A Location in the Upper Peninsula*, a book of collected poems, stories, and essays.

Keynote 3.3

Organic Creativity in the Classroom: Teaching to Intuition in Academics and in the Arts

Creativity can be taught and nurtured, and we can build classrooms in which creativity thrives. Twenty-three educators with over 500 years of classroom experience in K-18 have discussed how they use the Seven I's (intuition, inspiration, insight, improvisation, incubation, imagery, and imagination), Five Core Attitudes (group trust, risk-taking, openness to experience, self-discipline, and tolerance for ambiguity), and General Practices for Creativity (ritual, exercise, a decision to live a creative life) in teaching students in literature, mathematics, social science, science, physics, foreign language, theatre, visual arts, songwriting, dance, music, arts education, educational psychology, gifted education, school counseling, and school administration. This session will focus on their common strategies.



Dr Seon-Young Lee

Seoul National University

Seon-Young Lee, Ph.D., is an associate professor of the Department of Education at Seoul National University in Seoul, South Korea. Previously, she was a faculty member of the education department at Yonsei University and a research assistant professor at Northwestern University's Center for Talent Development. She is currently an executive editor of *Asia Pacific Education Review*, an associate editor of the *Journal of Advanced Academics* and the *Korean Journal of Educational Psychology*, and on the editorial boards of *Journal of Educational Psychology* and *High Ability Studies*. Seon-Young has published 80+ research articles, books, and book chapters in the field of gifted and creative education. Her research interests encompass gifted students' talent development, specialised gifted programs, creativity, peer relationships, and leadership development of gifted and creative students. She received the Gifted Child Quarterly Paper of the Year Award for 2011.

Keynote 4.1

Talent dissemination: A path leading into the future GT education

For decades, gifted education has paved the path for talent identification and development, and yet less attention has been given to post talent development for gifted students. Although gifted students are considered as a social asset able to make positive changes for future society, research and practice in the field have rarely advocated disseminating their talent for society as a whole. Is talent development an ultimate goal of gifted education?

This session will review and diagnose issues in gifted education today and suggest a new path for gifted education that goes beyond the present talent development movement. Gifted students' awareness of sharing talent with other people, perceived responsibility for the society, and involvement in the community as a future leader will be addressed. In the session, the presenter will pinpoint talent dissemination as an imperative agenda for gifted and talent development (GT) education. She will also suggest an educational model designed to foster four types of global competence skills that facilitate the process of talent dissemination for gifted students.



Professor Karen Rogers

University of St. Thomas

Karen Rogers is excited to be back in Australia after her three-year sojourn here from 2005-2008 as Director of Research for GERRIC at UNSW. She is Professor Emerita at her University of St. Thomas, but has continued receiving government research grants to further field-based investigations of what works or doesn't work with both twice exceptional and other gifted underserved populations. She has written, co-written, and co-edited seven books, published approximately 200 articles, and conducted 98 program evaluations and field based studies via grants and contracts. She currently sits on the Advisory Boards of the US Department of Defense Overseas Schools, Grayson School for the Gifted, College of William & Mary Gifted Education Center, and the Minnesota Department of Education Gifted Committee. She is a reviewer for most of the major journals that specialise in gifted education and has supervised doctoral dissertations for 37 applicants and reviewed 25 completed dissertations for a variety of universities in Australia and Asia.

Keynote 4.2

Worth the effort: Finding and supporting twice-exceptional learners in schools

A recent search through the literature on twice-exceptionality raised the issue (for Professor Rogers) of why there is a huge body of writing out there on twice-exceptional learners, from early childhood to adulthood, but so little of it documents school practices in identification and programming to take advantage of the creative gifts these unique learners have the potential to contribute if they are found and supported. Is it that schools find it “just too difficult” to identify such students accurately or is it “just too difficult” to figure out what to do for these students and who in the school will or should do it?

This presentation will focus on the extraordinary impact twice-exceptional learners have made for the betterment of society and how these learners have been able to overcome even more than just having a disability connected to their giftedness and being neglected in school. The presentation will share a wide variety of evidence-based identification strategies, instructional support strategies, and resources that can help us come to our own conclusions about whether or not we have the capabilities needed to find and support these extraordinary learners.

2.1.1 Mentoring for gifted secondary students: A unique school/university partnership

Susan Knopfmacher
*Presbyterian Ladies' College, Melbourne
Australia*

Research and experience show that secondary schools do not always meet gifted adolescent students' intellectual, creative, and affective needs. An extension mentoring program which fosters high-level challenge under expert guidance allows gifted students to follow academic and creative passions alongside like-minded peers. This presentation will explore the unique partnership between a leading Australian independent girls' school, universities, and art galleries to implement an academically accelerated research program for gifted adolescents (14-17 years), allied with the school's 'activity-reflection' Student Portfolio. Developmental models underpinning the innovative program include: Gagné's DMGT 2.0, the Actiotope Model and the International Baccalaureate Learner Profile.

2.1.2 A student perspective snapshot of life at James Ruse Agricultural High School, Sydney, Australia

Sandra Fernandez & Megan Connors
*James Ruse Agricultural High School
Australia*

James Ruse Agricultural High School is a beacon in our education system, as a school for the exceptionally and highly gifted. Programs exist to assist students to reach their potential in academia and to promote positive wellbeing, develop leadership skills and an awareness of global and social justice issues in a culturally diverse context. Students excel in various fields of endeavour as they are provided with a range of opportunities within the curriculum and in the extra-curricular environment. The school has achieved first place in the NSW HSC merit list for the past 21 years.

2.1.3 A model for the education of gifted learners: LWIS-City International School, Lebanon

Mira Alameddine & Nather Simhari
*LWIS-City International School
Lebanon*

Lebanon is a small country in the Middle East with high literacy level among children. In the 1997 curriculum reform, special education was introduced to the curriculum, which catered to the needs of children with learning difficulties and disabilities. The needs of gifted children were not mentioned.

Although there have been some attempts, officially, there are no well-rounded programs catering to the gifted population. As a community, LWIS-CIS understands the vital role educators play in developing critical thinking in future citizens and catering to gifted learners. The development of Gifted and Talented Clubs is the result of this knowledge.

2.1.4 That was then; This is now: New opportunities for gifted/talented African American males

Mark Mishou
*Denver Public Schools
United States*

In this session, the presenter will address the unique needs of African American males in being identified for gifted programs and serving them with the additional support needed to respond to the cultural demands, often negative, within their community. He will then project responses and approaches used to address this unique population to define processes, procedures, and concepts for an international and global perspective to assist other cultures in addressing the needs of minority cultures within their predominant cultures.

2.1.5 Access and equity in gifted education: Paradigm shift and professional development

Nancy Hertzog, Jann Leppien* & Jody Hess*
*University of Washington
United States*

Presenters will share how one state in the United States is addressing the under-representation of students from diverse populations in gifted education through legislation, advocacy, policy, and professional development. The impact of the paradigm shift from identifying a child as gifted to identifying which children need accelerated or advanced services allows school districts to design an array of services that meet individual students' needs. Designing and implementing an array of services requires comprehensive professional development. Presenters will share newly designed accessible, on-line professional development modules that address access and equity in gifted education.

2.1.6 Demystifying gifted: Race, representation, and restructuring

Lee Sapp
Tennessee Technological University
United States

This study challenges the current construction of gifted education programs in the United States as being inculcated with racism, classism, and gender bias. Through a long history of inequality, a discourse has emerged creating barriers for marginalised gifted populations. Using a critical discourse-historical analysis approach and Foucauldian notions of power, the study helps to unravel the hegemonic practices that influenced the current state of gifted education programs. This research hopes to uncover barriers for marginalised gifted students so that issues may be reported and be restructured for a more just, equitable, and verdant education future for marginalised gifted students.

2.1.7 Stressful events experienced by academically high-achieving females before the onset of disordered eating

Jennifer Krafchek & Leonie Kronborg
Monash University
Australia

Research about gifted students has shown that they experience some different sources of stress than non-gifted students. This qualitative study investigated the types of stressful events experienced by 14 academically high-achieving females before the onset of disordered eating. The results revealed that every participant reported problems related to academic issues, yet academic stress is rarely mentioned in the literature about stress and disordered eating. Some participants also described social problems related to being perceived as different. These findings have implications for both prevention and treatment of eating disorders among academically high-achieving females.

2.1.8 “You’re gifted, why are you here?” Counselling the gifted and talented

Wendy Stewart
Dara School for the Gifted
Australia

Research indicates that, in general, school counsellors have very little knowledge of the affective, developmental and career counselling concerns of gifted students. This limits their ability to provide effective counselling. Due to their unique

characteristics as learners, gifted students have specific counselling issues which often need to be addressed. In addition, they must deal with “normal” 21st Century counselling issues, often at an earlier age than their age peers. Both teachers and school counsellors will benefit from this presentation, which summarises issues pertaining to counselling gifted and talented students, and then provides suggestions as to the most effective methodology.

2.1.9 Familial influences on the career decision-making processes of gifted EFL high school students in Vietnam

Hong Cao, Jae Jung & Susen Smith
University of New South Wales
Australia

This presentation will outline a study that examined the factors that influence the career decision-making processes of gifted EFL high school students in Vietnam. Specifically, there will be: (i) a review of the factors that contributed to students’ career decision-making processes, (ii) an illustration of the influence of familial influences on the career decision-making processes, and (iii) a discussion of these familial influences from the perspective of Vietnamese history (i.e., changes to the Vietnamese family through different historical periods from the wars, the return to peace, Vietnam’s opening up to the world during Doi Moi (Renovation), to the present).

2.2.1 Is femininity the new ‘f’ word?: An exploration of gender identity and talent development of high achieving females

Kate Lafferty
Monash University
Australia

Is femininity the ‘f’ word when it comes to developing the talent of our highly able girls? What role do perceptions of masculinity and femininity have in influencing girls of high potential as they make decisions about career paths and study options? What are the factors that influence one girl to pursue a career in engineering, whilst another of the same high ability venture into teaching? Emerging themes of identity, mindsets, values, and self-regulation will be explored.

2.2.2 What's a girl to do? Popular culture and the aspirations of rural gifted girls.

Denise Wood
Charles Sturt University
Australia

The relationship between gifted adolescent girls in rural settings and popular culture is understudied in Australian and global contexts. The impact of the images, texts, and role models constantly presented in popular culture on their aspirations and the messages they receive about career choices, goals, and personal futures are important to understand in a world where girls continue to be positioned in traditional roles. The model described in this presentation highlights the necessity of providing gifted adolescent rural girls with skills, role models, and real life experiences to broaden their world view and construct their vision of a talented woman.

2.2.3 Theory into practice at a P-12 girls' school

Kathy Harrison, Jo Ryan* & Kate Lafferty
Methodist Ladies College
Australia

How do you structure a gifted and talented program to reflect your school community's values along with best practice? A dedicated gifted education setting within a P-12 college has over the past twenty years seen the evolution of a framework incorporating six strands of practice: Professional Reading and Professional Development, Case Management, Chance Opportunities, Subject Specific Withdrawal, Voluntary and Interdisciplinary Projects, and Acceleration. This presentation will outline each of these strands, focusing on representative case studies to show how they work in practice.

2.2.4 Top-performing math students' achievement and achievement motivation around the world: A meta-analysis

Lena Kristina Keller, Franzis Preckel*, Jacquelynne Sue Eccles* & Martin Brunner*
Free University of Berlin
Germany

The presenters meta-analysed gender differences in achievement and achievement motivation among 15-year-old students scoring in the top 5% in mathematics in their respective countries, using representative international samples (80 countries, $N = 175,835$, 41% female). Boys slightly outperformed girls in mathematics ($d_{\text{Median}} = 0.15$), whereas girls had better reading skills ($d_{\text{Median}} = -0.61$). Gender differences in science were negligible ($d_{\text{Median}} = 0.01$). Boys demonstrated a distinct mathematics-oriented achievement profile, whereas girls' profiles were more balanced across achievement domains.

Girls held more positive attitudes towards reading. This multipotentiality of top-performing female math students may offer them wider choices of future careers.

2.2.5 Culture for knowing giftedness among children: Towards a research praxis

Zahirul Islam
Jahangirnagar University
Bangladesh

This study attempts to explore how culture is necessary in children's giftedness research. Culture is unveiled firstly as a theoretical concept of giftedness with epistemological grounding, distinct meanings, and application and secondly as an underpinning of giftedness. Children's culture and development mutually constitute each other. Achievement is intrinsic to culture and is a cultural process. Children inhabit an environment constructed through centuries of human endeavour. They come to participate in culturally defined ways of thinking, creating, and performing. Diversity, relativism, and inclusion are key approaches to having insight into giftedness in cultural context.

2.2.6 Understanding educators' perceptions and practices regarding culturally and linguistically diverse gifted learners

Robin Greene
Denver Public Schools
United States

Culturally and linguistically diverse students are being denied access to gifted programming in the United States at an alarming rate. While there are many factors that influence student participation in gifted programming, none are as influential as the perceptions and corresponding practices of the educators with whom these students work. This session will share the results and recommendations of an exploratory case study that sought to understand the perceptions and practices of educators at a school in a large urban district.

2.2.7 Differentiated group work on heightening continuing motivation for high ability Ecoliteracy learners

Chee Yong Travis Tan & Huining Joyce Zhuang
Singapore Chinese Girls' School
Singapore

Year 2 Integrated Programme students at a Singapore Secondary School attend an Ecoliteracy module to foster greater passion, appreciate environmental conservation and sustainable living through advocacy. They were administered a Continuing Motivation (CM) survey before the module started. The Motivation

Teaching Model (Dornyei, 2009) teaches students the facts of the Colony Collapse Disorder. With guidance, students form groups and brainstorm solutions to save the dwindling bee population. Each class had a differentiated group activity to tailor learning and better motivate students to brainstorm for solutions. The difference between the pre-survey and post-survey CM score (after the group work) was calculated.

2.2.8 From reluctant writer to masterful author: Pedagogy that supports the young gifted child's writing development

Michelle Bence
University of Calgary
Canada

How do we harness the power of the young gifted child's imagination and creativity and empower them to become confident masterful authors? Teachers as researchers tracked outcomes and contributed to the advancement of the presenter's understanding of gifted pedagogy. Participants will learn about the 5 pronged approach used to effectively teach writing to young gifted children. Using illustrative writing samples, the presenter will describe the high impact practices that produced tangible improvement in young children's literacy learning. Participants are challenged to re-examine and move beyond their current thoughts and perspectives of teaching writing to young gifted students.

2.2.9 Radiant measures: Data, planning, and programming across elementary and secondary grades

Yvonne de St. Croix
United States

As gifted program designers may attest, there are aspects of magic at play when data, differentiation strategies and practices, student interests, and student readiness align to strengthen teaching practices, enrich the learning environment for students, and enhance the learning potential of students. In a case study conducted with elementary and secondary math and language arts educators, this session explores how gifted program designers craft a program and plan to dynamically support the unique needs of students and considers challenges faced by all educators for gifted and talented learners.

2.3.1 Teacher as researcher: Empathy as the first step in designing provisions for highly able students

Desiree Gilbert
The Association of Independent Schools, SA
Australia

This presentation will share insights gathered from the early stages of an ethnographic study exploring the impact of the teacher as an anthropologist and ethnographer, using empathy, perception, and relationship to engage school communities in improved practices for high ability students. A unique feature of this study and presentation relates to the exploration of engagement in change as a result of participation in a design-thinking process. Stories from teachers, gathered during their initial engagement in the discovery stage of the design-thinking process will be shared during the presentation.

2.3.2 Doctoral level education: Impact and influences

Norma Hafenstein, Justine Lopez & Kristina Hesbol
University of Denver
Julia Watson
University of Denver / Colorado Department of Education
United States

Does doctoral level education influence our field of gifted education? What are the impacts on gifted students, the classroom, schools, and districts? How do research based contributions influence our work? Doctoral level education is examined for impact and influence through an analysis of doctoral level training including doctoral students' change in perceived competency levels of gifted expertise, progression of identifying and solving complex persistent problems of practice, and impact projects designed and implemented in the field. A conceptual shift beyond student-service data is proposed. Replication recommendations are offered and implications for policy reform are discussed.

2.3.3 An analysis of student-to-student discussion posts in an online graduate gifted education class

Joyce Miller
Texas A&M University-Commerce
United States

Focusing on the results of a qualitative study about the connections between the levels of thinking reflected by student-to-student posts in an online graduate gifted education course, this session addresses the question: What are the characteristic of student-to-student online posts? Edward DeBono's Six Thinking Hats were used to classify the student posts. Posts made by the students to each other were less likely to be characterised by White Hat Thinking than posting to the instructor's discussion prompt. The main types of thinking represented by the student posts were Yellow Hat Thinking, Red Hat Thinking, with Green Hat Thinking ranking third.

2.3.4 GT carpe diem: Empowering self-advocacy

Deborah Douglas
GT Carpe Diem
United States

Many gifted students wait patiently (or often, impatiently) for their needs to be met while the adults in charge of their education struggle with an unending parade of initiatives, funding issues, and changes in curriculum, instruction, and assessment. But our brightest teens can take the lead in crafting their own unique paths through secondary school when the necessary insights and tools are provided. Through self-advocacy they will find more of what they want and need: meaningful schoolwork, exploration of interests, time with peers, and personalised accommodations. This session presents essential guidelines for empowering gifted students' self-advocacy.

2.3.5 Global use of gifted students' drawn images to personalise educational differentiation

Dorothy Armstrong
Grand Valley State University
United States

We invite gifted students into the process of their own education by asking them to draw actual and ideal school images. Research across cultures has shown that there is a universal language of school preferences. However, when students select an image to depict from all the possible images, it is because it is important to them and thus to us as their teachers. This session will present case studies of how this information has been used to plan individually appropriate talent development experiences for high achieving and culturally diverse students across all grade levels and in all content areas.

2.3.6 Like a thousand lizards on a flatbed truck: Integrating chaos and curricula for gifted learners

Constance (Connie) Brown
Jefferson County Public Schools
United States

Creating any program that allows students creative freedom while maintaining rigid scope and sequence is challenging, but trying to find that balance in a program while also managing 150 gifted and twice exceptional 12-14 year-olds (and their parents) may sound impossible. However, with the right strategies, this is easier than you may think! This presentation will offer a step-by-step process for creating a middle level gifted centre program that functions as an optimal integrated system, one where students, teachers, and parents thrive!

2.3.7 Narrative inquiry into practitioners' perspectives of gifted education in South Australia

Lesley Henderson
Flinders University
Australia

This presentation will report about doctoral research conducted using narrative inquiry to explore and interpret the experiences of three practitioners who have been instrumental to the development of gifted education in South Australia. The results are significant in the telling of the practitioners' stories, and in the construction of an interpretation of the past and a vision for the future of gifted education in South Australia. The stories will be presented as 'thinking-tools' (Moen, 2006) to provoke the audience to reflect on and engage in professional learning and practices that specifically focus on improved outcomes for gifted and talented students.

2.3.8 Designing and assessment of standards-based professional development in gifted education

Debbie Troxclair
Lamar University
United States

Successful professional development is sustained, facilitates transfer of learning to practice, and provides educators with an opportunity to collaborate and reflect. In this session participants will be presented with a summary of recent standards-based professional development activities in the field of gifted education and learn how to use the Logic Model for planning professional development activities that make a difference.

2.3.9 Developing a manuscript: Publishing in *Gifted and Talented International*

Leonie Kronborg
Monash University
Australia
C. June Maker
University of Arizona
United States
Nielsen Pereira
Purdue University
United States
Ann Robinson*
Barbara Kerr*

What does a researcher, a PhD student, or early career academic need to consider if they want to convert their research into a publication for *Gifted and Talented International* (GTI), which is the journal of the World Council for Gifted and Talented Children? In this session, the editors will individually share their

ideas and insights on how they go about developing a manuscript for publication. They will discuss a range of questions that researchers who want their work published need to consider. What do the GTI guidelines advise?

2.4.1 Integrating technology and simulations that transform the gifted curriculum for culturally and internationally relevant learning

Gillian Eriksson
University of Central Florida
United States

Explore the impact and use of new technologies in gifted education, using six core principles: Power (empowerment); Person (customisable); Place (virtual, simulated, augmented); Processes (problem-solving); Productivity (innovations); Projections (global networking, robotics). Examine how teachers can generate a culturally and internationally relevant curriculum (CIRC), especially for immigrant and second language learners. Practice how to incorporate new technologies into the creative process that are authentic and appropriately differentiated and strategies for using emerging social media productively. See the demonstration of a simulated classroom where case studies of real immigrant gifted learners from low-income contexts are scripted into avatars for live interactions.

2.4.2 Holistic assessment and technology: Reaping the benefits

Trevor Tebbs
Castleton University & Chandelier Assessments
United States

The holistic development, judgment and assessment partnership is vital in terms of its influence on the socioemotional and educational welfare of gifted individuals - personally and institutionally. Understanding and knowledge grows. Better quality environments are provided. Specific needs are more mindfully accommodated. Acquiring and managing necessarily rich data can be stressful. However, a variety of technological tools are available which save time while adding value and credibility to assessments. They can simplify data collection, management and exploration; facilitate critical thinking, problem finding and solving; clarify issues; enhance interventions: monitor response to interventions; and improve the efficacy and outcome of communication.

2.4.3 Developing an online learning environment that effectively caters to academically gifted and highly able secondary students

Stuart Fankhauser
Nossal High School
Australia

This session will outline how a selective entry secondary school in Victoria has established an Online Learning Environment that: A) provides students with an effective differentiated learning experience B) develops learner independence and readiness for tertiary studies through the use of "Digital Delivery Day" events C) gives teaching staff the opportunity to further develop their online subject spaces through student feedback facilitated through an "Exemplary Online Course" rubric.

2.4.4 Creative thinking in a regular classroom: Only for some

Dave Camilleri
The University of Melbourne
Australia

This presentation will look at the teaching of highly creative students who have become disengaged with regular classroom cultures and the cultural mechanisms that restrict opportunities for these students to display what they know. Current education provision favours academically minded students: this approach disadvantages practically minded students especially if these students are highly creative. This presentation will identify the characteristics of learning cultures that support highly creative students.

2.4.5 Fostering creativity in teaching gifted learners mathematics in regular classroom in high schools

Dimakatso Agnes Mohokare
Central University of Technology
South Africa

Teaching for creativity has been a learning goal for teachers across all disciplines and levels. In South African schools, mathematically gifted learners can make significant contributions to a community. Still they may be at risk of underachieving, unless teachers can derive methods to foster creativity to engage and challenge their abilities. The current education in South Africa supports inclusive education. This presentation reviews literature and previous research intended to discuss some of the methods that can be considered to improve learners' creativity.

2.4.6 Global interdependence is a reality!

April Dennis

*Future Problem Solving Program International
United States*

The creative problem solving process is an excellent means of nonviolent conflict resolution. Creative problem solving can be adapted to the needs of the 21st Century student as well as to any individual seeking to become a global, ethical leader. During this session, participants will experience the problem solving process by exploring a future scene of global interest set in 2035. Training in this process enables the learner to address problem situations in their own lives as well as assist students as they strive to become ethical leaders around the world.

2.4.7 Partnerships with parents of young gifted children: Early childhood teachers' perspectives in NSW, Australia

Kerry Hodge

*Macquarie University
Australia*

Despite a policy of partnership with parents and research evidence of reliable parent identification of giftedness, we know little about early childhood teachers' experiences with parents of young gifted children. A survey of 80 teachers in New South Wales preschool and childcare settings showed reasonable alignment with recommended practice, based more on experience of gifted children than their minimal training in gifted education. Most teachers felt confident interacting with parents amid reported agreements and disagreements about children's abilities and appropriate responses. Uncertainty about early entry, formal assessment, identification, and provision suggests that professional development is needed.

2.4.8 The 'cost' of giftedness: Neoliberal governance of early childhood education in Aotearoa New Zealand

Andrea Delaune

*University of Canterbury
New Zealand*

Early childhood education within Aotearoa New Zealand is regulated to promote the mechanisms of competition. As more children enter early education through the discursive normalisation of educational "benefits", more gifted children attend settings which are not economically supported to adequately extend their abilities. This presentation will draw upon Foucauldian research, problematising the role economic discourses play within the lives of gifted infants and toddlers who are participating within early childhood educational settings in Aotearoa,

New Zealand. Questions surrounding the compatibility of early childhood education, gifted education, and the educational domain as a site for profit-making will be raised.

2.4.9 Talent development academies: Providing access and opportunity to advanced learning for underserved students

Julie Swanson

*College of Charleston
United States*

Laura Brock*

In this presentation, authors will share data from an innovative approach to talent development, which focuses on teacher development, whole school involvement, and low income schools serving elementary age students. This project is funded by the US Jacob Javits Gifted and Talented Education Grant and offers evidence-based approaches to systematically developing student talent.

2.5.1 Classical Chinese children primer: A gem in nurturing giftedness

Caroline Kwok

*MegaBrain Institute
Hong Kong*

Previously in China, early childhood education was known as "enlightenment" with the focus on educating the child as a whole. In today's China, there is a revival of using these materials to teach children. This presentation will introduce three Chinese children's primers and discuss how these materials can be valuable resources in nurturing children's potential, especially for those who are more advanced in language development.

2.5.2 Depth and complexity in the curriculum for gifted students

Mirella Olivier

*BRAINways Education
Australia*

According to research, the curriculum that is preferred and most suited to gifted children allows them the deep levels of exploration when investigating a topic. This was demonstrated by data collected from the students participating in the Days of Excellence programs. The unique nature of these offerings is investigated, in an effort to understand the complex nature of the relationship between the achievement of depth and breadth in the students' learning and the unique structure of the programs.

2.5.3 Early childhood educator attitudes towards giftedness and early entry

Mimi Wellisch
Clever Kids Consultancy
Australia

This research is a follow-up to a 1997 study and explores the changes, if any, in NSW based Australian early childhood educators' knowledge and attitudes to gifted pre-schoolers. The earlier study focused on labelling, programming, and early childhood educator beliefs. These themes have been expanded to include early entry to school and to examine whether responses differ according to educator qualification levels. This research also seeks to identify gaps in early childhood service provisions for gifted children where programming is based solely on Australia's currently approved National Quality Framework. The presentation includes helpful recommendations based on the findings.

2.5.4 T2i: Identification protocol in public schools

Andree Therrien
Clinique Médicale Sainte-Adele
Canada

T2i identifies, through its innovative approach, students and employees with high potential in STEM / MINT strategic intelligence profile and who also show a superior capacity for innovation and perseverance. T2i meets the needs and realities of public education systems and companies: minimal budgetary and professional investment, fast access to results, and quick group testing execution. T2i readily adapts as it counterbalances ethnic, linguistic, cultural, and gender biases. It modulates to students' socio-economic situations as well as those already clinically diagnosed. Combining the weighting of standard assessments with selected scientific predictors makes the T2i unique.

2.5.5 A toolbox for rigorous identification: Preschool-Year 12

Angela Foulds-Cook
The Southport School
Jasna Poeszus
The Southport Preparatory School
Australia

The identification of gifted students can potentially be problematic. This session will demonstrate how to cast the net wide to find all potentially gifted students, including those who may be under-represented. The results of single-instrument (or even psychometric) testing, if conditions on a particular day are not conducive to the student, could result in overlooked cases with unfortunate implications. Collecting a body of evidence to support your decision need not be a challenge if certain steps are taken.

The focus in this session is to take you through those steps and provide you with the necessary tools.

2.5.6 Identifying the gifted when valid and reliable measures don't exist and a shortage of resources

Leticia Jaquez & Roman Jaquez*
Instituto de Talentos y Prodigios (Institute of Talents and Prodigies), INTALPRO, Inc. & Universidad Catolica Nordestana (UCNE)
United States

Most of the literature regarding the identification of the gifted and talented is highly centred around using instruments that currently exist. However, most of these instruments have not been examined to determine validity and reliability in most other countries outside of where they were developed. The goal of this parallel session is for the audience to feel that they have left with a variety of strategies about how to use existing resources or efficiently develop new resources to use in their country when there are no valid or reliable measures to identify the gifted.

2.5.7 Twice-exceptionality – opportunities and possibilities: Three mixed-methods research studies

Michelle Bannister-Tyrrell
University of New England
MaryAnne Haines & Anne O'Donnell-Ostini
Australia

Three researchers present their inter-related studies as a three-tiered foundation for future expansion and replication. The first study, a cross-university research project, reports on a national survey investigating teachers' understandings and confidence in identification of twice-exceptional students (2e). The second study reports on the development of a model for early identification of 2e children within the early childhood context. The third study reports on the development and testing of an initial identification questionnaire for primary school teachers and a comparison of findings with other assessment strategies. These mixed methods studies offer new insights and promising findings for teachers and students.

2.5.8 Methods for increasing twice-exceptional self-efficacy: Ways to enhance “I can do it!”

Claire Spicer
Deakin University
Australia

Self-efficacy, the academic concept of self, pertains to one's abilities to successfully complete a task or goal (Bandura 1997). Research into self-efficacy has previously investigated efficacy of gifted and non-gifted individuals but rarely twice-exceptional

children and adolescents. The goal of this presentation is to utilise the four sources of self-efficacy (past experience, verbal persuasion, vicarious reinforcement, and physiological reactions) to create and share efficacy builders, activities known to raise self-efficacy in twice exceptional learners.

2.5.9 A tale of two Es: Case studies of twice-exceptional students' growth in an all-gifted school

Kimm Doherty
Melissa Bilash
The Grayson School
United States

Twice-exceptional students often find themselves doubly uncomfortable in typical mixed-ability classrooms, where their disabilities may hide their gifts, or their gifts may hide their disabilities. At an American independent all-gifted primary school, twice-exceptional students can have both learning needs addressed simultaneously, with positive changes to their learning, behavior, and self-concept. Through two case studies - a behavioral turnaround and an academic one - the presenters will share what practical steps and programming choices allowed these highly-able twice-exceptional children to make remarkable progress in just one school year.

2.6.1 Mindsets and the development of talented dance students

Penny Van Deur
Flinders University
Australia

Of the many students who attend dance classes, there are a few who show high levels of ability that could be developed so that a talented child becomes a highly accomplished adult dancer. The way students view their abilities influences their motivation to dance and their development as dancers. Mindsets make an important contribution to motivation and achievement. This paper outlines the way fixed and growth mindsets can inhibit or enhance a talented dance student's development. There is a description of the Talent Development Mega-Model that incorporates mindsets. Growth mindset is discussed with reference to the ballerina Darcey Bussell.

2.6.2 Developing musical talent into elite performance: A historical and educational perspective

Rachel White
St Vincent's Primary School
Australia

This presentation will explore the topic of talent development and elite performance within the context of music education. It will examine key literature

related to the areas of musical giftedness and talent development, identification, and the role of educational institutions and educators in the identification and cultivation of students who show potential for musical talent. This presentation will then discuss limitations in the literature, with particular reference to the Australian context, and outline ways in which musical talent development can be further studied in an effort to improve the educational equity of all musically gifted and talented students.

2.6.3 The unique barometers of giftedness through the eyes of the highly and profoundly gifted

Vanessa R. Wood
The International Gifted Consortium, Research Center for the Highly & Profoundly Gifted
United States
Miraca Gross
University of New South Wales
Australia

Innate, Multi-Dimensional, Dynamic Awareness - Giftedness embodies the whole self and can be discerned in all areas of development. This session examines the social, emotional, physical, cognitive, and altruistic development of giftedness and the unique barometers particularly evident, but sometimes hidden, in the highly and profoundly gifted. Key areas of discussion include Dabrowski's over-excitabilities, misdiagnosis, and advocacy for the gifted child. Participants will walk away with a better understanding of the intrinsic characteristics, behaviours, and sensitivities of giftedness and the acute awareness, intensities, and motivations propelling profound giftedness.

2.6.4 Clarity and fuzziness in the curriculum: Innovating curricula for high ability learners

Letchmi Devi Ponnusamy
National Institute of Education, Nanyang Technological University
Singapore
Ruilin Elizabeth Koh*

This presentation explores case studies about how select secondary schools in Singapore go about dealing with curriculum innovation and implementation, to offer challenging learning experiences for high ability learners. The findings point to both clarity and fuzziness in the dominant discourses at both the school and individual teacher levels about what the curriculum is expected to offer. The fuzziness in the innovation process was also further affected by the teachers' differing conceptions of the characteristics and needs of high ability learners. Explicating the different discourses contributes greatly to the further development of educational programmes for high ability learners.

2.6.5 Planning and delivering learning for verbally gifted students in secondary school

Shane Kamsner & Carolyn Giles
Carey Baptist Grammar School
Australia

Challenge: valuing the uniqueness of the verbally gifted child; recognising and nurturing their talent; and propelling them towards attaining eminence. This challenge meant developing a model where the child became the centre of a circle of learning. The wise, independent, motivated learner who had a voice that was central to their learning, and where the child had a realisation of academic self-efficacy. Initiating practice that acknowledged the relationship between verbal giftedness, intrinsic motivation and acknowledging personal epistemology was pivotal in striving for optimal growth from the child's educational experience. Participants will use their mobile phones to be part of the experience.

2.6.6 Developing a growth mindset culture amongst academically gifted and highly able secondary students

Sue Harrap
Nossal High School
Australia

This presentation will outline how a co-educational, academically selective entry secondary school in Victoria has changed the nature of assessment, reporting, awards, recognition, and praise to support highly able and gifted students to focus on learning, challenge, collaboration, and growth, rather than emphasising the fear-engendering focus on achievement. We identify a predominance of "fixed mindset" traits (Dweck), in our student and family population and have worked hard to create a culture that supports the development of "growth mindset" characteristics so that we can maximise their learning potential and support their wellbeing.

2.6.7 The use of Arduinos in STEM education: A hands-on approach

Hui Leng Tan & Puay Hong Yeo
Raffles Girls' School (Secondary)
Singapore

A new Design and Technology curriculum was designed to introduce 13-year-old high ability girls to basic concepts of coding and micro-controller technology through the use of Arduinos. At the same time, students were taught to solve problems using the Design Thinking approach (Brown, 2008). Students applied what they had learned to solve authentic problems faced in the school canteen, designing and prototyping solutions that were responsive to the context and needs of the user.

Findings based on a student perception survey, and student works, student reflections on learning, as well as teacher observations, will be shared and discussed.

2.6.8 STEM career pathway through research mentoring programme: The Malaysian gifted and talented students' experience

Noriah Mohd. Ishak & Rorlinda Yusof
Universiti Kebangsaan Malaysia
Malaysia

This presentation discusses gifted students' experiences in developing their STEM career pathways through a research mentoring program. Four hundred and seventy-five gifted students participated in the program. A total of 441 students were able to sustain their interest in STEM and gained admission into STEM related undergraduate programs. Twenty-seven students are now pursuing a postgraduate degree in STEM related fields. Twenty-one students were interviewed through emails. Data collected show that their interest in STEM related career developed while they were working on their research proposal. The interest crystallised when their work was awarded through publication.

2.6.9 An innovative pedagogic model that integrates scientific enrichment with intra-inter personal dimension to promote fulfillment of the potential of gifted students

Orni Meerbaum-Salant
The Davidson Institute of Science Education, The Weizmann Institute of Science
Bruria Haberman
Holon Institute of Technology of Israel and Davidson Institute of Science
Israel
Sarah Pollack*

Scholars have realised for a long time that giftedness by itself is no guarantee for success and fulfilment of early personal potential in adulthood. The main question is how school education may contribute to gifted youngsters to transform their early potential into exceptional achievements in the future. The Weizmann Institute Alpha program is based on Gagné (1993) which emphasises the integration of intrapersonal and environmental catalysts into learning processes with the aim to drive talent development. We added the interpersonal dimension (collaborating, communicating, expressing idea) which will in turn influence the intrapersonal dimension, especially self-esteem, self-confidence, and increase motivation.

2.7.1 Roles of giftedness, gender, and age in overexcitabilities: Highlighting instrument-sensitive group difference in emotional overexcitability

Yifan Lyu
City University of Hong Kong
Hong Kong

This review aims at identifying roles of giftedness, gender, and age on overexcitabilities (OEs). Included studies are highly consistent in that 1) females score higher in EOE and SOE, 2) TOE is higher in older groups, and MOE probably decreases with development. Moreover, TOE has been identified as the most consistent characteristic differentiating the gifted from their counterparts. While for EOE, the selection of questionnaires (OEQ or OEQ-II) is contributing to the variation of the results, indicating that the simplification from OEQ to OEQ-II may have restricted its application in investigating the group differences between the gifted and non-gifted.

2.7.2 Existential group work: Meeting affective needs for the gifted

Paula Christensen
Northwestern State University of Louisiana
United States

Group work can allow gifted students opportunities to share and discover the universality of their affective needs and expressions. Gifted students need guidance in dealing with their emotions, gaining responsibility, and discovering their own direction and purpose in life. Existential philosophy addresses finding purpose. Existential group work can provide an environment that is uniquely suited for the gifted as they can engage in abstract thinking, complexity, and ambiguity while exploring emotions and dealing with life issues. This presentation provides information of how existential group work has been beneficial for the gifted as they meet their affective needs.

2.7.3 Social and emotional needs of gifted children and the sixth language of love

Lynn Berresford
New Zealand

Gifted children are complex, highly sensitive individuals who often face daunting challenges in adjusting to life. Research indicates that it is uncomfortable and sometimes painful to be statistically different from your age peers. Gifted children can develop excellent coping strategies which can be to their advantage but often disadvantage them. This presentation looks at the social and emotional needs of gifted children. The focus is on effective communication with gifted children. The gift of giving and receiving knowledge is the sixth language of love

and it is important in establishing and maintaining a meaningful connection with our gifted children.

2.7.4 Navigating a post-truth world: The affective impact of introducing literary theory to gifted students

James Koh
Raffles Institution
Singapore

This research study examines the impact of introducing literary theory to a group of gifted students in Singapore aged 15 to 16. Using data from student interviews, surveys, class responses, and assignments, this study evaluates how the inclusion of literary theory in the curriculum helps to meet the affective needs of these students via the adoption of a critical pedagogy framework.

2.7.5 Reading: Novel course in gifted children's education

Qiong Wang
Beijing No. 8 High School
China

Students in quality classes are characterised by a high level of intelligence and strong ability to internalise new knowledge. As an English teacher, the presenter's job is to respect students' cognitive status and assist in knowledge-construction. Knowledge acquisition can only have the best effect with interaction between strong motivation and reasonable cognition. Therefore, in terms of English teaching as a second language, reading should play the key role. However, in current class teaching, it is still a new attempt to carry out reading activities.

2.7.6 Reading and the gifted: Developing a program of reading with a global perspective

Robert (Bob) Seney
Mississippi University for Women
United States

Many of our gifted/talented students are strong readers, but too often they receive little or no instruction in developing advanced reading skills. In their reading, they are not led into depth and complexity, key elements in reading instruction for the gifted/talented. In this session, research and theory will be transformed into classroom practices to develop an appropriate approach to reading instruction. As time allows, we will re-visit the presenter's 1989 Sydney World Conference presentation, which focused on the paring of American children's and young adult literature with Australian literature with new titles.

2.7.7 Problem-Based Learning: An apprenticeship in expert thinking

Shelagh Gallagher
United States

Discussion of Problem-Based Learning (PBL) has focused on ill-structured problems. However, the heart of the model is the transformation of the student from child to apprentice. The problem creates a landscape for a cognitive apprenticeship that transports students into an expert-like mindset. Through example and discussion, this presentation will focus on the power of PBL to create apprenticeships. Research and experience will demonstrate how the story-like narrative of PBL transmits content and transforms learners, with particular emphasis on the alignment between PBL, the characteristics of gifted students, and the aims of gifted education.

2.7.8 The effects of graphic organisers: Problem-Based Learning program on the critical and creative thinking abilities and the attitudes of the gifted

Shin Dong Lee & SoYoung Joo
SoonChunHyang University
Woon Jung Koh
Kangnam University
South Korea

This study aimed to examine whether graphic organisers, when used in PBL, is effective in improving critical and creative thinking abilities and the attitudes of gifted students. The subjects of this study were 50 gifted students. The study findings were as follows: First, this program was effective in improving creative thinking ability and personality. Second, the best group (IQ of 130 or more) is shown to be more effective than the excellent group (IQ of 125-129) in many sub-factors of the critical and creative thinking ability and personality.

2.7.9 ChallenGE Project: Applying design-thinking and design-based research to improve outcomes for gifted students

Janet Farrall, Alice Duffield & Desiree Gilbert
Association of Independent Schools of South Australia (AISSA)
Lesley Henderson
Flinders University
Australia

Applying a design-thinking model to gifted education enables teachers/leaders to develop tailored programs for gifted students in their specific context. Nearly one third of schools in the Association of Independent Schools of South Australia (AISSA) have elected to join AISSA's ChallenGE Project, in partnership with Flinders University, inspired by the question "how might we improve outcomes for our highly able students?"

This paper will present the design-thinking model that has been adapted and developed for the ChallenGE Project, and outline the parallel research project, using design-based methodology, that will monitor and evaluate the efficacy and impact of this intervention.

2.8.1 Global partnerships to develop creative problem solving

C. June Maker
University of Arizona
United States
Myra Wearne
North Sydney Demonstration School
Australia
Tracy Riley
Massey University
New Zealand
Faisal Alamiri
The University of Jeddah
Saudi Arabia
Melinda Webber
University of Auckland
New Zealand
Katrina Sylva
Dargaville High School
New Zealand

Members of the panel include university-based researchers, public school teachers, and administrators from four countries who have cooperated to implement an evidence-based teaching/learning model to develop Real Engagement in Active Problem Solving through facilitating students' solving of real-life problems. The model was developed to serve gifted students, and has been used successfully with students in varied settings. Local community members, teachers, students, researchers, and administrators have cooperated in choosing local, national, and international problems connected to required curriculum standards for their schools. We will share the ways we have implemented, tested, and modified the model in both research and practice.

2.8.4 Effective programming for developing talents among underserved populations

Nielsen Pereira, Marcia Gentry, Yukiko Maeda & Jennifer Richardson
Purdue University
Gilman W. Whiting
Vanderbilt University
United States

Panelists showcase research-based programming models effective in developing talents among underserved populations and engage in discussion with audience members. Presentations are followed by facilitated interaction among panelists and audience members. Specific models presented include STEAM Labs, Toy Labs, The Scholar Identity Model™, Total

School Cluster Grouping, Out-of-school Enrichment Programs, and Online gifted education Staff Development Modules.

2.8.7 Do short term programs have a place in providing for gifted children?

Helen Dudeney & Lyndal Reid
Australian Gifted Support Centre
Carolyn Giles & Anne Grant
Born to Soar
Adrienne Alexander
Extension Education One Day School for Gifted Children
Australia

This symposium will provide details about a range of short term enrichment/extension programs offered in five states/territories around Australia during the past 5-10 years, including weekend camps, regular monthly support groups, and term long one-day programs. In all cases, one of the main goals of the program is to support the social and emotional development and psychological well-being of those attending. The presentation details selection criteria and nature of the group and will provide both qualitative and quantitative data. This data has been collected with standardised tools, questionnaires, and anecdotal data from parents and participants.

2.9.1 Parents of twice-exceptional children: A panel presentation for teachers and parents

Gabrielle Oslington
Macquarie University
Australia
Michelle Meltzer
Belinda Cooley
Louise Dutton

Twice-exceptional students are individuals whose families and teachers typically struggle to provide for their social and academic wellbeing. This symposium draws on the experiences of four parents of twice-exceptional children to demonstrate how they are negotiating school and home experiences through supporting the child's disability while allowing expression of their giftedness. These parents have dealt with a range of very formidable issues, including: the use of prescribed medicines, obtaining disability adjustments for external examinations, managing family life, and fostering self-esteem in children who are often facing significant challenges.

2.9.4 Publishing your work in gifted education: Ask the journal editors

Jae Yup Jung
University of New South Wales
Australia
Leonie Kronborg
Monash University
Australia
Michael S. Matthews
University of North Carolina at Charlotte
United States

What are the editors of the varied journals in gifted education looking for? As a potential author, what can you do to increase the chances that your work will be published? Current or incoming editors of five journals in gifted education will participate in this panel. Each will briefly describe the journal he or she edits and the kind of work each journal publishes. Panellists will also share their advice for authors who wish to have their work published in these peer-reviewed gifted education journals. A question and answer period with the audience will follow the formal presentation.

2.9.7 Problem solvers today – leaders tomorrow!

April Dennis
FPSP, Inc.
United States
Niranjan Casinader & Nicola Desoe
Future Problem Solving Program Australia
Australia

The 21st Century requires powerful and effective global leaders - and these leaders must possess effective problem solving skills. Gifted students do not automatically develop into leaders or problem solvers, rather students must be provided appropriate tools that lead to acquired behaviours needed for this enormous task/responsibility. The Partnership for 21st Century Learning identified the 4-C's: Collaboration, Communication, Creativity, and Critical Thinking – all of which are addressed within Creative Problem Solving (CPS). Teachers must be well informed in CPS to provide the essential skills required to form future leaders who will make a positive difference globally.

2.10.1 Change management for gifted programming

Rachel Lam
Overnewton Anglican Community College
Australia

Leading change in gifted education from the position of middle leadership can be a challenging undertaking. Despite this, it is possible to lead significant, transformational change. This session will apply John Kotter's change management research to gifted education. This story of change management

explores the process required for a paradigm shift in a large P-12 College, impacting the philosophy, vision, policy, strategy, programming, identification, and provisions for high potential learners. Key lessons from this experience will be shared to inform and inspire gifted education leaders, addressing strategies to grow influence and apply sound change management processes applicable to numerous educational settings.

2.10.2 When Policy is not enough: One advocate's perspective

Elizabeth Singer
ACT Gifted Families Support Group
Australia

An experienced look through the eyes of one advocate at policy development and implementation in one jurisdiction in Australia. It answers the question of how to enhance your skills and reputation as an advocate. This explores the way government has supported the implementation of policy to enhance the experience of gifted students. It focuses on changes in the education choices of gifted children. Finally, it reviews individual school adaptations due to the policy.

2.10.3 Ethics of care in the construction of giftedness

Melanie Wong
University of Canterbury
New Zealand

This presentation draws from the findings of a doctoral study investigating different constructions of giftedness in Aotearoa, New Zealand. The data were collected through a national online survey, interviews, and from a Facebook closed-group discussion. One set of constructions was about care ethics and how sustained relationships can help to meet the needs of gifted children. The study's participants believe that relationships are an important element of working with gifted children. This presentation aims to start the conversation about care ethics in constructions of giftedness, and how important relationships are in terms of supporting gifted children, families, and teachers.

2.10.4 Gifted students' and teachers' perceptions of leaders and leadership

Seon-Young Lee, Eunjoo Boo, Yun-kyoung Kim,
Eunsun Kim*, Taehee Kim* & Hyunuk Park*
Seoul National University
South Korea

The purpose of this study was to examine gifted students' and teachers' perceptions of leaders and leadership. The conception of leadership, characteristics of leaders, and gifted students'

leadership were identified based on a comprehensive review of literature and two focus group interviews. Focus group data were analysed using qualitative methods. Gifted students and teachers in South Korea agreed upon the qualities of great leaders and leadership programs. However, they held different opinions on gifted students' leadership. Discussion on the reasons for this gap and further analysis will be included in the presentation.

2.10.5 Developing leadership identity: Universal needs necessary for cultural connections

Justine Lopez, Norma Hafenstein & Kristina Hesbol
University of Denver
United States

The significance of identifying traditionally marginalised students as gifted learners is a matter of life quality and economic concern for rural communities. This state-wide grant project builds on the capacity of developing leadership identity. Developing leadership identity is connected to the categories of influence, group influences, and developing self with others. Through individual and collective demands of on-going reflection, analysis of values, beliefs, and attitudes-broad student, parent, and community views of leadership are revealed. A conceptual model illustrating the grounded theory of developing leadership identity and its influence on the identification of underrepresented gifted students is presented.

2.10.6 "From the horse's mouth": Student voice in secondary school – a student perspective

Thomas Velican & Abel Muller
Nossal High School
Australia

Authentic student voice and leadership is being developed within the academically selective secondary cohort at Nossal High School in Melbourne. The school's creation in 2010 provided a unique opportunity to build a strong culture and ethos around authentic student voice and input into the development and evolution of the school. Two powerful student leaders will present an inspiring student perspective about this which may surprise and challenge "adult" perceptions. More importantly they will convince their audience of the advantages, value, and imperative to enable stronger student voice and input within our schools and the wider community.

2.10.7 Mindfulness and development: Exploring the role of mindfulness in supporting students

Laurie Croft
University of Iowa
United States

Meditation has existed for thousands of years as a means of stilling the mind and exploring the inner world. This practice is becoming more popular in Western culture as scientists are documenting the physiological changes that take place in the body during mindfulness (Greenberg, & Harris, 2012). Educators are using this information to help students discover the practice of mindfulness in an effort to reduce anxiety and cultivate internal resources (Zelazo & Lyons, 2012).

2.10.8 In practice, not just in theory: A developmental approach to supporting social and emotional growth in gifted students

Anna Meuli
New Zealand Centre for Gifted Education
New Zealand

The New Zealand Centre for Gifted Education's curriculum for gifted learners includes a specific content strand entitled "Personal Development" aimed at supporting gifted students to gain an understanding of what it means to be gifted, building better intra and interpersonal knowledge. Students develop a greater awareness of who they are and what makes them tick and become empowered to take better control of their social and emotional needs. The centre sees amazing social and emotional outcomes for the students it works with and the presenter is happy to share their practice with this international community.

2.10.9 Being with like-minds: A mixed methods study of gifted children's perspectives

Tracy Riley
Massey University
Deborah Walker
New Zealand Centre for Gifted Education
New Zealand

What does it mean to be like-minded? And what opportunities do gifted children have to engage with like-minded peers? This study used surveys and interviews to explore these questions with primary and intermediate students engaged in MindPlus, a one day a week programme of the New Zealand Centre for Gifted Education. A focus group of alumni explored and elaborated upon these findings, helping the presenters to understand the student experience and its implications. They will share the study design, findings, and implications for practice and research in this session.

2.11.1 Leading and teaching for adolescent talent development: One high school's SEAL experience from an insider and outsider's perspective

Kate Mitchell
Box Hill High School
Leonie Kronborg
Monash University
Australia

Box Hill High School has the largest Select Entry Accelerated Learning (SEAL) Program in a Victorian state government school. The principal initiated a teaching/research project partnership with Monash University for three consecutive years to provide a Professional Learning unit with assessment for teachers at the school to be exposed to the evidence-based research literature in gifted education and talent development taught at an equivalent Master's level. The aim of this project was to investigate these experienced teachers' beliefs and understandings about teaching and nurturing adolescents' talents. Findings from this research will be shared alongside the principal's perspective.

2.11.2 Examining self-determination in graduates who entered college early

Nancy Hertzog, Rachel U. Mun* & Sakhavat Mammadov*
The University of Washington Halbert and Nancy Robinson Center for Young Scholars
United States

Early entrance to college is one of many accelerative options available for highly advanced students. Unlike academic adjustment and performance, social and emotional well-being of students who enter college early may be of great concern for parents and prospective students. Self-determination theory (Deci & Ryan, 2000) sheds light on the importance of psychological well-being. In this session, the presenters will highlight the findings from a mixed-methods study that examined outcomes of early entrance to college. The presenters will share recommendations about developing a nurturing environment where early entrance students' self-determination can grow.

2.11.3 Abstract voices of parents: Sharing evaluation of an education response to young gifted children

Carolyn Giles
Born to Soar
Anne Grant
Deakin University
Australia

Two essential strands in education programming for young gifted children are providing a satisfying level

of learning and evaluating the program as a basis for ongoing planning. In a one-day-school program which explicitly aims to extend rich and complex thinking by young gifted children, there are implicit goals to validate a healthy sense of self, resilience in facing challenges, and extend their social skills. Including parental voice as part of the evaluation and the planning process impacted on these goals. This paper will report on the evaluation process and discuss the nature and efficacy of parental feedback for ongoing planning.

2.11.4 Personal best goal setting and self-regulation for engagement of gifted children in an enrichment programme

Susen Smith & Andrew Martin*
University of New South Wales
Ben North
Department of Education
Australia

Developing social and emotional competencies includes building personal goal setting and self-regulation skills. This presentation will address the question: What are parents' perspectives of their gifted children's PB goal setting and self-regulation for engagement in an enrichment programme? Little is known about benefits or concerns regarding community enrichment programmes or about influences of these programmes on the social and emotional development of intellectually gifted students. This presentation reports initial findings from a quantitative survey regarding parental perspectives of influences on children's participation in a university enrichment programme. Key early findings and implications for practice and research will be provided.

2.11.5 Do ability grouping and acceleration damage self-esteem? How ability grouping turns little fish into big fish

Miraca Gross
University of New South Wales
Australia

This study examined shifts in self-esteem in three groups of Australian students enrolled in their first year of secondary school, students in comprehensive (mixed ability) schools, students in selective high schools (fulltime ability grouping) and students in selective high schools who were also collapsing the first two grades into one, a synthesis of ability grouping and acceleration. Interestingly this last group was the only group in the study that did not experience a significant dip in self-esteem.

2.11.6 Thriving or surviving: Gifted students reflect on their senior high school experiences with high-stakes assessment

Ben North
New South Wales Department of Education
Susen Smith, Miraca Gross
University of New South Wales
Australia

What comes to mind when gifted students reflect on their final school years, and their school journey in general? How do students manage a major high-stakes assessment scheme that may determine their entry to further study and possible careers? This presentation will discuss the findings of a study that interviewed a cohort of gifted students about their school experiences with high-stakes assessment after they had gone to the next step in their lives. The participants reflected on feelings of pressure, workload, procrastination, underachievement, boredom, lack of challenge, and the forced-choice between achieving their potential or living a normal teenage life.

2.11.7 Using conceptual frameworks, tiered inquiry and assessment to engage gifted learners in mixed ability classrooms

Bronwyn MacLeod
Gateways Education
Australia

This session engages teachers with practical strategies to design differentiated curriculum and assessment using conceptual frameworks in order to engage the gifted learners in their classrooms in meaningful inquiry-based teaching and learning processes. Discussion on current practice, the needs or requirements of particular school and educational system priorities, and the research, which supports these processes, will be undertaken. Action research projects which examined the impact of using conceptual frameworks will also be shared.

2.11.8 Learning through geographical field inquiry for high-ability learners

Roslinda Chan
Raffles Girls' School (Secondary)
Singapore

Research supports the use of inquiry as an instructional approach for students of high ability (VanTassel-Baska, J., 2003). The infusion of fieldwork into the Geographical Inquiry approach helps high ability learners to understand advance and complex concepts better. In the Geography curriculum in an all-girls secondary school, deliberately planned fieldwork during and outside school curriculum time encourage critical inquiry, concept-based learning, as well as develop citizenship values. This presentation highlights

how fieldwork is effective in creating a learning environment that is critical in achieving the key learning outcomes. Post-trip reflections have revealed that students' learning has improved.

2.11.9 Raising the quality of gifted and talented education through interdisciplinary learning

Ju Ah Kim
Korean Educational Development Institute
Mi Kyung Lee
Cheonnam National University
Daniel Suh
POSTEC
South Korea

This study aims to diagnose the current state of interdisciplinary learning in gifted education and proposed ways to raise the quality of gifted education through interdisciplinary learning. Pointing out the problem of ambiguity of interdisciplinary learning and limited use of STEAM education, attempts were made to redefine the notion of interdisciplinary learning. In-depth interview and surveys were conducted at the Science Academy for the Gifted in South Korea to analyse how faculty and students conceptualise interdisciplinary learning and how they implement it in their curriculum. This study also examined universities' stance on interdisciplinary learning and their evaluation of curriculum of SAG.

3.1.1 Contributions of critical thinking to motivation

Birsel Nemlioglu & Umit Davasioglu
Maltepe University
Turkey

Critical thinking and motivation have been considered as two important factors contributing to learning. The aim of this descriptive research is to find out the contribution of critical thinking to motivation on 30 fifth grade gifted students. The instruments used, were Cornell Critical Thinking Test Level X and Academic Self-Regulation Questionnaire (SRQ-A). In the analysis of findings, arithmetic average, standard deviations, and the correlations between variables were calculated. Afterwards, the stepwise regression analyses were conducted to find out whether or not the Cornell Critical Thinking Test Level X components are good predictors of Academic Self-Regulation Questionnaire components. Results were discussed.

3.1.2 Cancelled

3.1.3 Development and validation of Self-Concept Inventory for preschooler (SCI-K)

Kyunghwa Lee
Soongsil University
South Korea
Jinyoung Koh*

The purpose of this study was to develop and validate the Self-Concept Inventory (SCI-K) for preschoolers. Four domains (cognitive, affective, social, and behavioral) and seven sub-variables (linguistic, logical-mathematical, personality-emotional, relationship with friends and parents, physical ability, and appearance) were selected and developed. Research to determine validity will be described.

3.1.4 Equity and excellence in gifted education: Meeting the needs of underserved learners

April Wells
School District U-46
United States

Giftedness exists in all populations of students, regardless of cultural, linguistic, or economic differences. Bright students who are economically disadvantaged, from minority backgrounds, or who are learning English as a second language are often overlooked, unidentified, and do not receive appropriate programming and services to help them reach their potential.

3.1.5 Scenario performance: Creating new options for demonstrating problem solving for children beyond the square

Christine Casinader
Future Problem Solving Program Australia
Australia

The options available to educators to develop problem solving skills in students tend to be focused on communication skills around the written word, or are based around 'Western' conceptualisations that are specific to certain cultures. However, the use of futuristic story telling performances enables students from cultures where oral storytelling is prized or students who have learning difficulties such as dyslexia, to develop and demonstrate their problem-solving skills. This presentation outlines one such option: Scenario Performance, which is part of the global non-profit Future Problem Solving Program.

3.1.6 Gifted English Language Learners: Success stories in secondary schools

Aranzazu Blackburn
University of New England
Australia

Success stories of gifted ELLs in Australian secondary schools are recounted in this presentation that identifies the experiences and educational needs of this specific group of students and how these needs are being met. While there is consensus that students need proficiency in English to function in the Australian schooling system, the presenter's

inquiry shows that the needs of students who are gifted must also be acknowledged. Success stories of diverse school offerings, support for English language learning, facilitation of self-directed learning, and quality of teachers and programs are identified as being paramount to meeting the educational needs of these students.

3.1.7 Investigation of internet addiction in gifted students according to the different variables

Ahmet Kurnaz
Necmettin Erbakan University
Turkey
Aynur Usta*

In this study, it is aimed to view internet addiction of gifted children and the relationship between different (demographic, social-cultural, and economic and ownership of digital products and connecting) variables. The sample of the study consisted of 423 gifted children from different science and art centres. The research data was collected using Günüç's "Internet Addiction Scale." At the end of the study different results were obtained about the variables (gender, age, educational status of parents, having natural/step father and mother, type of school, socio-economic status of family, effects of digital products, status of internet connection at home) of the research.

3.1.8 Impact of the difference in e-feedback patterns within a simulation-based software to teach programming for gifted students

Seham Alnafea
Ministry of Education
Saudi Arabia

This research aimed to measure the impact of the difference in e-feedback patterns within a simulation-based software to teach programming for gifted students. The researcher followed the semi-experimental method and developed the experimental design based on two groups. The tools of the research were the achievement test and performance test, with a related note card. The research concluded the existence of statistical variables of (0.05) between the mean scores of the two groups. The research suggests the importance of the employment of feedback in simulation-based educational software to introduce different levels of aid and guiding for these educational materials.

3.1.9 Mind the gap: Youngsters growing up in the digital age

Laura Hayward
University of Texas Rio Grande Valley
United States

Do young learners really just "pick up" technology or is something else going on? Mobile technology has changed the home environment of young learners affecting family relationships. What do young children know about technology and how do they know it? This parallel session shares and sheds light on emerging research focused on technology and family relationships.

3.2.1 Forensics@Kristin: Who Dunit?

Raewyn Casey
Kristin School
New Zealand

One hundred budding investigators come from all over New Zealand in July for Forensics@Kristin, an intensive, student-led programme that challenges participants to solve complex simulated homicide cases. Gifted students from across the country come to embrace the challenge, and test their problem solving, research, and logic skills at this unique camp. Another team of students is responsible for the logistics of running the camp. Catering to everyone, supervising teams, overseeing the science laboratories and general day-to-day running of the camp. Staff are on hand, but it is the students who lead the camp and take responsibility for its ultimate success.

3.2.2 Architecture workshop for high talented children: Experience and method

Ana Gallego
PHD architect
Spain

The presenter will share the experience of working with highly talented children in the Architecture Workshop. The Architecture Workshop encourages playfulness, creativity, imagination, fun, spontaneity, empathy, and the development of personal relationships. The lived space is more than the physical space. A place, a square, a street, a building, trees, light, people, etc., give a frame and articulate structure. Architecture Workshops insist on the creation of own and shared spaces, where vision, smell, and touch generate other dimensions.

3.2.3 1 + 1 + 4 = Thousands of kids

Deborah Walker
New Zealand Centre for Gifted Education
New Zealand

It is vital that the needs of the gifted child are met, for the sake of the child and for the benefit of society. The New Zealand Centre for Gifted Education provides a suite of services nationwide to support the gifted child, their teachers, and their families. This session

will outline the journey of the Centre, the development of its curriculum, and the establishment of sector-wide programmes ranging from early years to secondary. Participants will see the benefits of specialist educators, collaboration between educational communities, and the combination of like-minds together in responsive and differentiated learning environments.

3.2.4 A case study: A comparison of identification and assessment processes between second and fourth grade students enrolled in Turkish Science and Art Centers (SACs): From the experts' perceptions

Abdullah Eker
Necmettin Erbakan University
Turkey
Hakan Sari*

SACs are the unique formal institutions in Turkey which were founded by government since 2006 as an intervention challenge for the special needs of gifted students. There is a debate among Turkish professionals that indicates some concerns about whether the students' identification and assessment should start from the first or fourth grades. Last year the National Ministry of Education decided that identification should start in the first grade instead of fourth grade. There is not any study showing the scientific necessities about this issue to be able to solve the debate.

3.2.5 Diversified Model of Identifying Gifted Students: An exploratory study in India classrooms

Jyoti Sharma
University of Delhi
India

This presentation reviews the detailed description and findings of a national level project, funded by the Office of Principal Scientific Advisor to the Government of India, that aims to develop indigenous tools and methods to identify children who have high academic potentials and develop pathways to nurture the potentials into academic excellence. The presentation explains the steps of standardising the process of identification that has been tried out on a sample of approximately 56,000 students from grade V-IX. It further brings out the "Diversified Model of Identification of Gifted Students" and battery of identification instruments developed during the study.

3.2.6 The Gifted Rating Scale for the Marginalised (GRSM)

Kyung-Sook Lee, Shin-Dong Lee, Jinho, H. Kim & Sang-Hee Lee
Soonchunhyang University
South Korea

The Gifted Rating Scale for the Marginalised (GRSM) was developed to identify gifted students from low-income families, providing rubrics for Likert scales. This study reports research findings on the validity and the reliability of the GRSM as well as its technical backgrounds. It is composed of three factors measuring cognitive ability, creativity, and practical problem-solving ability. Participants were 100 gifted and 67 non-gifted students (grades 2 and 3) from low-income families and 18 teachers. The results showed the efficiency of the GRSM in identifying low-income gifted students better than the most commonly used teacher referral checklist.

3.2.7 The importance of culture in defining and accommodating giftedness: A Lebanese perspective

Maya Antoun
University of Balamand
Lebanon
Leonie Kronborg
Monash University
Australia
Margaret Plunkett
Federation University
Australia

This paper outlines part of a PhD study conducted to investigate how giftedness is perceived and provided for in a Lebanese context. Lebanon has experienced social and political turbulence over an extended period of time, however, as a country, it places a high value on education. Through a mixed methods case study, 281 primary teachers from Lebanon were surveyed about their perceptions of giftedness and educational provisions, with 12 involved in interviews and classroom observations. Findings indicated a generally positive attitude by teachers but also an acknowledgement of a limited awareness of evidence-based Western practices associated with gifted education.

3.2.8 Can we legislate for gifted education?

Kai Zhang
University of Glasgow
United Kingdom

Across the globe, countries are considering how to ensure they meet the 17 sustainable development goals developed by the United Nations that are to be achieved by 2030. If countries are to meet the call for inclusive and equitable quality education and promote lifelong learning for all by 2030, then examining legislation and policy for gifted education alongside the implementation of such policies becomes a crucial component in this process. This study will consider how policy/legislation impact and support gifted learners, and then look to identify how policy/legislation can be better informed by research and theory within gifted education.

3.2.9 Talent support networks ensuring capacities and a quality of talent development

Stanislav Zelenda
National Institute for Further Education
Czech Republic

Regional networks of teachers, field experts (researchers), stakeholders, policy makers, psychologists, teacher trainers, and institutions stimulate activities within shared concepts and measurements implemented by the Ministry of Education. Key functions are to exchange information; to create high quality activities for children, pupils, students; to provide pedagogy training; and to create cooperation among field experts, communities, and schools in the talent support development. Examples of activities fulfilling the criteria of high quality and related both to existing school systems and emerging talent support networks will be presented: manipulations for development of math concepts (pre-school), enquiry activities (primary schoolers), and designing and leading team research STEM activities (high schoolers).

3.3.1 Russia: State of talents

Andrey Barkin
Council for Gifted (Russia)
Russia

For the first time in decades, a national review of young talents has been conducted across Russia. It is focused on practical implications for policy-makers, existing and potential providers, and learners and their families. The logic follows a holistic process of nurturing gifted youth from needs identification, through talent development, to a multi-faceted talent application. That is, to a personal, professional, and civic fulfilment in further life, and talent retention. Recent national initiatives are raising new hopes, pushing innovations, and addressing some of the deficiencies across the ecosystem.

3.3.2 Balancing the gap between the acceleration policy and the instructional practices for the accelerated gifted and talented students in Saudi Arabian schools

Faisal Alamiri
The University of Jeddah
Saudi Arabia

The purpose of this paper is to explore teachers' perceptions of the acceleration policy and their experiences while teaching accelerated gifted and talented students in the regular classroom in Saudi Arabian schools. Participants were 15 classroom teachers from different schools. Qualitative data were gathered from semi-structured interviews. The overall findings demonstrate teachers' capacities to undertake critical reflection on the acceleration

policy and on their actual instructional practices for the accelerated gifted and talented students. Two major themes are highlighted in this presentation: (1) elements of an acceleration policy; and (2) the synergistic interaction between teacher competence and teacher confidence.

3.3.3 Cancelled

3.3.4 Student agency in a New Zealand specialist gifted programme

Madelaine Willcocks
New Zealand Centre for Gifted Education
New Zealand

Motivation, and the apparent lack thereof, of gifted students is an ongoing area of interest for many in gifted education, and forms the core of many definitions and conceptualisations of giftedness internationally. In New Zealand, at present, the idea of student agency is a "hot topic," with much attention being paid to how teachers might allow or support their students to be increasingly agentic. This session will present an overview of literature around agency, discuss how agency has been built into a specialist curriculum for gifted students, and share specifically agentic strategies that have been implemented via this curriculum.

3.3.5 The seven challenges of the gifted child

Femke Hovinga & Tijn Koenderink
Take on Talents
Netherlands

Being gifted is not, as some would say, just a gift or even a luxury problem. It comes with challenges, intellectually as well as socially. But what are those challenges and how to deal with them as a parent or educator? This workshop is about the seven main challenges as defined by thousands of teachers and parents. A Dutch bestseller, this book is now being published in English and its author will share the key insights, among them the question of how to overcome a fixed mindset and how to gain motivation for school.

3.3.6 Using student feedback to monitor and enhance programming strategies for talent development

Nicole Sabbadin
Loreto Kirribilli
Australia

Student voice is important in education and can be used as a tool to guide teacher practice. This concept is especially the case for the gifted, who can often provide insight about teacher practice and how it meets their personalised learning needs. This presentation will detail how qualitative and quantitative data from focus groups, surveys, and individual

student and teacher questionnaires are being used in a variety of ways to influence teacher practice and to monitor and enhance classroom experiences for the gifted.

3.3.7 The state of gifted education in Australia: A SWOT analysis

Jae Yup Jung
University of New South Wales
Australia

This presentation will commence with an overview of the current state of gifted education in Australia, as informed by a review of the Australian research in gifted education, along with gifted education policies and practices noted in non-research outlets. Thereafter, the findings of a SWOT analysis (i.e., a tool commonly used in the field of corporate management to evaluate the strengths, weaknesses, opportunities, and threats of businesses and industries; Helms & Nixon, 2010) on the field of gifted education in Australia, will be reported. Implications for Australia and other countries and recommendations for future research and practice will be discussed.

3.3.8 To “reach your potential” – should that really be the goal? Re-thinking ideas around underachievement.

Louise Tapper
giftEDnz The Professional Association for Gifted Education
New Zealand

Policy documents at both a national level in Aotearoa New Zealand and at the school level frequently include aims around the idea of “reaching potential” when referring to achievement for gifted learners. Notions of potential were the focus of a recent doctoral study which explored the experiences of school for 11 gifted and talented adolescents in New Zealand. Findings from the study showed that the participants saw “potential” as a nebulous, inexact concept. This presentation will argue that it is not theoretically sound to structure definitions of underachievement for gifted learners around the idea of “not reaching your potential”.

3.3.9 Developing national programming for advancing the gifted and talented in Israel

Eli Fried
Center for the Advancement of the Gifted and Talented, Maimonides Fund
Israel

During the past three years, the Maimonides Fund has been developing national programming for advancing the gifted and talented in Israel. Its rationale lies in the unique potential of the gifted and talented to

impact fields of national priority, and their capacity to contribute significantly to advancing scientific and technological breakthroughs on a global scale. There are currently more than 900 high school students participating in this program, all of which incorporate three core operational components: (1) co-funding between private philanthropy and Government, (2) nationwide implementation through institutions of higher education, and (3) individual support, social activities, and informal educational programming.

3.4.1 Re-envisioning culturally proficient leadership to expand student success for all: Examining the identification of underrepresented minority gifted children in rural Colorado

Kristina Hesbol, Norma Hafenstein & Justine Lopez
University of Denver
Julia Watson
University of Denver / Colorado Department of Education

What factors influence the identification of racially, culturally, and linguistically diverse gifted students in rural contexts? This research is being co-constructed by practitioners, university researchers, and the State Department to increase the number of traditionally underrepresented minority gifted children in rural, remote contexts. This boundary-spanning work focuses on increasing the identification of gifted Latino and Native (indigenous) students (Oakes, 2005), along with students who live in poverty, in 17 rural and remote schools. The presenters examine local assumptions and beliefs, as well as the leaders' cultural proficiency, which act as barriers to the identification of all gifted learners.

3.4.2 Identifying the gifted learner in a rural context

Carmel Meehan
Victorian Association for Gifted and Talented Children Inc.
Australia

This presentation will examine the cognitive and affective benefits for parents and educators of the gifted, which was achieved by an inspiring professional learning joint venture, funded by the Victorian Government and delivered by the VAGTC. Rural living challenges examined include peer support, professional learning, and uncertainty about a child's developmental behaviours. Participants will discuss the cognitive and affective benefits expressed by the seminar participants, via pre and post test results, as a direct outcome of the Gifted and Talented Identification seminars in rural towns in Victoria.

3.4.3 Gifted identification in rural and remote areas

Christine Ireland
AAEGT
Australia

Australian gifted students in rural and remote areas are commonly under-identified. PISA results for these students are often low. The obstacles facing teachers attempting to identify gifted students in this situation in many countries are significant. Which factors impede rural and remote school systems? How has increased use of IT impacted this problem? How can teachers positively and sustainably improve accurate identification and the education experiences for these children? How can teachers improve whole school awareness of the issue? How can parents assist to better identify and serve these children?

3.4.4 “Self-propelled learning”: Facilitating talent development in highly able individuals on the autism spectrum

Susan Wade & Leonie Kronborg
Monash University
Australia

The process of self-propelled learning was identified and investigated as part of a larger grounded theory study to explore talent development in highly able individuals on the autism spectrum. The study design uses grounded theory methodology (GTM) to analyse responses from 156 participants (adults with an autism diagnosis, parents, teachers, psychologists, mentors/coaches) from Australia, North America, and Europe. The results demonstrate that self-propelled learning is the most important process contributing to the outcome of asymmetrical thriving (high levels of achievement alongside coping with challenges associated with an uneven profile of strengths and weaknesses).

3.4.5 Using a strengths-based approach to support twice-exceptional learners in the classroom

Amanda Drury
Australia

Twice-exceptional children are widely missed in the classroom due to their giftedness often masking their disability or vice versa. Using a strengths-based approach to teaching combined with a differentiated curriculum in the general classroom may not only more accurately identify twice-exceptional children but help them to thrive in their schooling. This presentation will give you a box of tools to assist in both teaching and advocating for your twice-exceptional children in the general classroom.

3.4.6 Teachers’ perceptions of their preparedness to meet the needs of gifted and twice-exceptional learners

Geraldine Townend
Griffith Institute of Educational Research
Australia

Teachers need to feel prepared to support, engage and build rapport with their students to enable student development and optimal educational outcomes. However, relatively little is known about how well-prepared early career teachers believe themselves to be for their role in teaching gifted and twice-exceptional students. Presented are 971 early career teachers’ perceptions of their preparedness to teach students with diverse learning needs, including gifted and twice-exceptional students. The results focus specifically on where beginning teachers felt least prepared: teaching diverse abilities, supporting students with disability, and communicating sensitively with parents. Implications and recommendations are discussed.

3.4.7 Educational alchemy: How project-based learning and an ancient mystery transformed gifted children into a team

Allyson O’Rourke-Barrett & Jill Williford Wurman
The Grayson School
United States

Designed on a shoestring budget in a small US school for K-6 gifted students, the Antikythera project offered a “perfect storm” of gifted student passions: LEGOs, computers, math, astronomy, engineering, ancient history, and mystery. The reproduction of an ancient Greek analogue computer using LEGO involved every student in the school, and created a sense of community, quantum leaps in teamwork and collaboration, and other social-emotional synergies that no one expected. Project-based learning, recognised as a best practice in gifted education, yielded results far more profound and lasting than the remarkable end product.

3.4.8 Using rich tasks as differentiation in the elementary mathematics classroom

Gabrielle Oslington
Macquarie University
Australia

In a mixed ability elementary mathematics classroom, providing adequate complexity and depth for the gifted students proves a teaching challenge. This presentation explores responses to one measurement and area task undertaken by students working at first grade, second grade, fifth grade, and above sixth grade in a mainstream elementary school. The richness of the task allows students to enter

into authentic investigations with an increasing level of complexity and challenge appropriate to their current mathematical understanding. Programming around rich investigative tasks provides ready-made differentiation to support gifted and other learners.

3.4.9 How to teach physics and chemistry to gifted children?

Martin Konecny

*Charles University in Prague, Faculty of Mathematics and Physics
Czech Republic*

This presentation will explore teaching chemistry and physics to gifted students of lower level in grammar school. The activities suitable and not suitable for teaching physics and chemistry to gifted children will be described. The presentation will be focused on approaches the presenter has found ineffective and subsequently on those that were found to be useful. The differences in terms of gaining knowledge between gifted and non-gifted students will be outlined at the end of the presentation as well as the various examination methods usable in gifted students teaching.

3.5.1 Philosophy for children: Our story of philosophy withdrawal gifted groups influencing whole school curriculum change

Craig Davidson & Rebecca Napier
*Southern Vales Christian College
Australia*

As educators of gifted students, ensuring our pedagogy is focused on teaching students how to question in order to create new answers can be challenging. Philosophical inquiry can equip students to become confident lifelong learners able to interact constructively, open-mindedly, and respectfully. This multimodal presentation illustrates the journey of a South Australian school in a low socioeconomic area that is implementing a dual stream philosophy program addressing the needs of highly able learners in withdrawal groups and whole class settings. It focuses on student voice and provides an overall snapshot of the presenters' journey to date.

3.5.2 The IB's Middle Years Program: A good fit for gifted learners in Qatar?

Jeffrey MacRaild
*American School of Doha
Qatar*

The International Baccalaureate's (IB's) Middle Years Program (MYP) was investigated to determine how well it is suited to gifted science students in the State of Qatar. Qatar's formalised educational system

is less than 100 years old whereas its culture is steeped in ancient traditions and values. To be successful, a modern curricular framework must complement rather than oppose such values. A study was undertaken to explore giftedness in this context, and whether the MYP could support these students' academic growth. Although the framework was found to be compatible, limiting factors at the study sites impacted levels of student satisfaction.

3.5.3 Special schools for the gifted in Saudi Arabia, Jordan, and Egypt: Past, present and future

Nasser Almutairi
*Monash University and Saudi Arabia Cultural Mission
Australia*

The study aims to evaluate the current policy and practices related to gifted education in the gifted schools located in Saudi Arabia, Egypt, and Jordan. Second, it focuses on policies and guidelines in gifted education among the chosen countries and the benefits of modern practices in some advanced nations in gifted education. A qualitative approach using case studies will be used to evaluate some schools in three countries. The data will be collected through document analysis and semi-structured interviews with decision-makers, principals, and teachers.

3.5.4 Family and school connectedness in the development of creative and critical thinking self-efficacy

Ricci W. Fong
*The Education University of Hong Kong
Hong Kong*

This study aimed to examine the relationships between family and school connectedness on students' creative and critical thinking self-efficacy. Academically talented students (n=1,424) from 4th-6th grade in Hong Kong completed a questionnaire. Results suggest that both family and school connectedness are positively associated with creative and critical thinking self-efficacy. Although school connectedness accounts for additional variance in creative and critical thinking self-efficacy after controlling for family connectedness, family and school connectedness only account for 18% of the variance in creative and critical thinking self-efficacy. Implications to researchers and educators will be discussed.

3.5.5 The relationships between achievement factors and creativity: Why they are different and how they can be explained

Donggun An
*Seoul National University
South Korea*

The purpose of this study was to examine the relationships between academic achievement factors and creativity. It compares how academic achievement factors predict creativity differently according to different forms of creative outcomes and gender. Participants were 295 college students in Korea. Measures of academic achievement factors included higher-order thinking, metacognition, self-efficacy, and self-determination as predictors of different creative outcomes (divergent thinking, creative problem-solving, and creative personality). Results showed that higher-order thinking and gender significantly predicted divergent thinking. In contrast, higher-order thinking and metacognition significantly predicted creative problem-solving. For creative personality, high-order thinking and self-efficacy were significant predictors.

3.5.6 Creative engineering and design in action: Designing and evaluating learning activities connecting engineering and creativity

Nielsen Pereira
Purdue University
United States
 Mehdi Ghahremani*
 Shawn Jones*

This presentation will focus on activities connecting creativity and engineering and students' perceptions of the activities. A design-based research framework guided this inquiry. Middle and high-school students enrolled in a summer program for gifted and talented students participated in engineering courses and completed surveys on their experiences. Curriculum materials and student artefacts were evaluated for inclusion of creativity indicators. Results indicate that the activities and student artefacts addressed several creativity indicators, however, few of the students mentioned creativity development as one of the benefits of participation. Implications for gifted programs emphasising creativity will be discussed.

3.5.7 A multi-modal approach in teaching chemical bonding using the Parallel Curriculum Model

Li Kheang Koo
Ministry of Education Singapore
Singapore
 Wei Quan Daniel Soh*

Cedar Girls' Secondary School started restructuring the school curriculum using the Parallel Curriculum Model (PCM) as a framework in 2014. The first adapted Chemistry unit on Chemical Bonding was designed in 2015 to investigate if this approach can help heighten interest and deepen the learning of concepts in Chemistry. Based on feedback from the study, the lesson materials were further modified and improved for subsequent batches of students in 2016.

3.5.8 Differentiated curriculum using conceptual frameworks, inquiry-based learning and the Australian Curriculum

Kath Morwitch
The Association of Independent Schools of the ACT
 Alex Galland & Lisa Cockerill*
Canberra Girls Grammar School
Australia

Attendees of this workshop will be provided with insights about a bespoke Train the Trainer model that supports teachers in the development of a sound understanding of evidence-based best practice in gifted and talented education that aligns with current research and the Australian curriculum. Attendees will gain insights into the collaborative development of tiered teaching and learning activities and formative assessment using Bloom's Taxonomy. A case study will showcase how students have engaged with a conceptual framework and the Williams Model to enhance critical and creative thinking and drive inquiry.

3.5.9 Leading differentiated learning for the gifted

Manoj Chandra Handa
NSW Department of Education
Australia

The purpose of the study was to investigate teachers' attitudes and perceptions of giftedness, and their self-reported teaching practices; compare the perceptions of principals and teachers about differentiated pedagogical practices; and examine the principals' perceptions about school-wide differentiation. Participants included 867 teachers and 120 principals from government schools in Sydney, Australia. A mixed-method approach was used, including online questionnaires and case studies of principals. Results revealed significant differences between the perceptions of principals and teachers about educating gifted learners; and a need for stronger pedagogical congruence between principals and teachers in educating the gifted, and leadership actions for school-wide differentiation.

3.6.1 Developing a system-wide approach to gifted education

Craig Wattam, Sally Brock & Christine Chapple
Catholic Schools Office Maitland-Newcastle
Australia

This paper traces the development of one school system's work in developing a system-wide approach to gifted education. Grounded in local data and evidence, research, and local contextual needs, the presenters developed a series of recommendations to address a lack of attention to gifted education in any strategic way across

the Catholic Schools Office schools. This presentation describes the process of developing this system response to gifted education.

3.6.2 A holistic model for serving the needs of identified gifted students

Kathryn Grubbs & Nancy Hertzog
University of Washington
United States

Presenters will describe a holistic program model to frame conversation about the best and most comprehensive ways to ensure the needs of identified gifted students are being met. This visual model addresses the importance of four programming areas: 1) academic growth, 2) social/emotional support, 3) university and career planning, and 4) parent and teacher engagement. Participants will explore best practices for designing and delivering comprehensive gifted program services within each component. Participants will have the chance to engage with each other and will take away strategies and ideas that will empower them to create cutting-edge programming in their schools.

3.6.3 Gifted education programming: One size does not fit all – a vision from the coalface

Nancy Wines & Geraldine Townend
Lindisdarne Anglican Grammar School
Australia

Ideally, gifted programs should be visible, planned, and incorporate explicit assessment. They also require a specified philosophy, clear and appropriate goals, professional development for those actively involved, the necessity of being linked to curriculum, and have mechanisms for ongoing formative or summative assessment. Provisions, on the other hand, are usually short-term and fragmented, and in many cases not necessarily connected to the core curriculum. Provisions should not be considered as a valid comprehensive program. Our vision within a P-12 school is that both programmes and provisions have an important role to play in catering well for gifted students' needs.

3.6.4 Professional training: Developing leaders in gifted education

Laurie Croft & Anna Payne
University of Iowa
United States

Leadership, essential for serving gifted/talented students, often comes from teachers who understand how to meet their needs. Independent teacher learning has emerged as an option for meaningful understanding. With online materials, educators can pursue greater knowledge. Learning can be organised

as a QUEST, a framework encouraging the exploration of A) Questions teachers have; B) Understandings teachers initially have (including unexplored implicit ideas); C) Emotions arising about the topic, from stakeholders; D) Standards guiding the exploration of relevant research; and E) New thoughts developed about the topic and its implementation.

3.6.5 Leadership development in gifted adolescents

Lynne Maher
Tasmanian Association for the Gifted Inc
Australia

This presentation will examine the development of leadership potential in gifted adolescents with examples and illustrations from the speaker's experience of a year teaching in a small boarding school in a remote hill village. In the context of established models of talent development, the presentation will draw on the literature to identify the characteristics of gifted leaders and the processes, influences, and opportunities that influence the development of leadership potential in gifted adolescents.

3.6.6 Student-led action research for the primary grades: Growing gifted students into civic minded inquisitive researchers

Katherine Martin
Ridgecrest Elementary
United States
Michael Moss*
Carmela Fowler*

Student-led action research can be a highly effective instructional model to develop critical thinking and leadership skills in gifted and talented students during the primary grades. Many of the student research models currently being used in schools focus on students in the intermediate grades and higher. Teachers in this full time gifted program have created a proven and successful action research approach for gifted students in grades K-2 that cultivates research, critical thinking, and leadership skills. This workshop shares an easy to implement action research model created by teachers that is specifically designed for gifted students in the primary grades.

3.6.7 Public attitudes towards the gifted: Myth and reality

Elizabeth Jones
Institute for Educational Advancement
Shelagh Gallagher
United States

Society's "love-hate relationship" with giftedness has framed the discussion of gifted education for decades. Until recently, the nature of that relationship has been unclear. In 2015, the Institute for Educational Advancement began an unprecedented survey of public attitudes about giftedness. Together with a national polling organisation, and in collaboration with NAGC and the Fordham Foundation, data has been gathered from a stratified random sample of American citizens on several topics, including attitudes towards the term "gifted" and increased public services. The results shed light on lay attitudes, and on how to approach conversations about public policy.

3.6.8 The state of gifted education in the U.S.: Patchwork, problematic...and promising

Jenny Nance* & Melissa Bilash
The Grayson School
Wendy Behrens
Minnesota Department of Education
United States

America's consistently low scores on international tests and dramatic changes in the White House make understanding U.S. education policy more complex - and more important - than ever. With its "patchwork" of policies from state to state, the educational landscape for high-ability children can be perplexing, compounded by the ever-present disparity between scholarship and what actually happens "on the ground" in classrooms. In this session, we will offer a snapshot of gifted education in America today, focusing on nationwide policy variations, the gap between research and practice, and recent developments in the field that offer glimpses of a brighter future.

3.6.9 Pathways to professional proficiency in gifted education: A process and product

Julia Watson
University of Denver / Colorado Dept of Education
Norma Hafenstein
University of Denver
United States

Do you need to increase the capacity of educators to meet the needs of gifted students? A recent partnership between the Colorado Education Department and universities in Colorado has resulted in a defined series of pathways for gifted endorsement and licensure in Colorado. Join the presenters to learn about the process implemented by the Colorado Consortium of Educators of Gifted Teacher Education (CCGETE) as well as gain information about the standards for the three pathways of "Core," "Specialist," and "Administrator" licensure. This session will provide information about an inclusive process that brings stakeholders to the table for collaboration and commitment.

3.7.1 Human raising with relationships in mind: The scientific way

Katerina Morjanoff
Australia

Most of us want happy, healthy, fulfilling connections. The social dynamic is hugely influential in its ability to impact all areas of life, at all ages. However, we weren't brought up knowing what was required to "do relationship". Yet, successful relationships have essentially been reverse-engineered. There's a formula which provides more than 90% accuracy. Utilising more than four decades of multi-dimensional and extensive research you'll learn: 1) The 7 steps to building a sound relationship 2) To easily differentiate between Masters and Disasters of relationships 3) How to model the traits required to lead by example for the next generation.

3.7.2 Compassionate empathy and emotional fragility: Supporting the sensitive gifted child

Michele Kane
Northeastern Illinois University
United States

For many sensitive gifted youngsters, their capacity to tune in to the feelings of others can be both a blessing and a curse. Acutely aware, these perceptive children have a capacity for care that exceeds their years. Yet, their intense concern can also threaten

their emotional well-being as they may feel overwhelmed by the emotional intensity of those around them and may experience stress, anxiety, and inner turmoil. The purpose of this presentation is to compare the constructs of cognitive empathy, emotional empathy, and compassionate empathy, providing caring adults with successful tools for supporting and nurturing the emotionally gifted child.

3.7.3 Talent development, career exploration, work habits, meaning in life, and connectedness of Chinese adolescents

Mantak Yuen
University of Hong Kong
China
Jesus Alfonso D. Datu*
Shui-wai Wong*
Josephine Yau*
Norma C. Gysbers*

This study was conducted with 2,638 Chinese adolescents (mean age = 14.92, SD = 1.32) in Hong Kong and investigated associations among the variables of talent development, career exploration, work habits, meaning in life, and connectedness. Results demonstrated that presence of meaning in life had indirect effects on talent development, career exploration, and work habits through the mediating

effects of connectedness. Implications for future research and for practical implementation of talent development and career exploration programs for adolescents are discussed, with particular reference to gifted and talented students.

3.7.4 Exploring the relationship between intelligence and popularity: The social and academic popularity of gifted elementary students

Abdulkadir Bahar
University of Wisconsin
United States

One purpose of this study was to explore the relationships between intelligence and sociometric status of young learners in elementary schools. Another purpose was to document the differences in social and academic popularity between gifted students and their peers. Participants included 3,335 elementary students, 643 identified as gifted, in grades two through four in 20 schools in Turkey. The summary of the statistical analysis indicated significant correlation between intelligence and social and academic popularity. Also, the summary of the MANOVA analysis indicated significant differences in the social and academic popularity between these gifted and non-gifted students.

3.7.5 Mapping common ground: Relationships between giftedness, introversion, and heightened sensitivities

Jodie Valpied
The University of Melbourne
Australia

Prior research suggests a disproportionate level of introversion and heightened sensitivities among the gifted population. Curiously, one main variable found to contribute to introversion is heightened sensitivity of the central nervous system. The current study hypothesised that a positive relationship between giftedness and introversion could be explained by these heightened sensitivities. 674 participants completed a personality scale and the Highly Sensitive Person Scale. Structural equation modelling showed a positive relationship between giftedness and introversion, once controlling for openness-to-experience. This relationship was mediated by two sensitivity sub-factors. Implications for working with gifted individuals and areas for further research will be discussed.

3.7.6 Self-handicapping, achievement goals, and self-efficacy of gifted students

Harun Tadik* & Abdullah Eker
Necmettin Erbakan University
Turkey

Some students purposefully display self-handicapping behaviours when they are expecting a low performance for a subsequent academic task. They associate their low performances to the self-handicapping behaviours to avoid a possible perception of lack of ability by their friends. The present study investigates self-efficacy, achievement goal orientation, and self-handicapping behaviours of middle school Turkish gifted students. The results of the study revealed that gifted students are not free from self-handicapping behaviours, and those who have low self-efficacy and focusing on performance goals are more likely to show self-handicapping in their school education. Possible implications of the study were discussed.

3.7.7 Difference in bullying and victimisation between academically gifted and normal group: Multi-group analysis of cross-sectional latent means and longitudinal stability

Byeong-Ho Choi & Seon-Young Lee
Seoul National University
South Korea

This presentation will examine if there is any difference in bullying and victimisation between the academically gifted and normal groups. For cross-sectional differences, multi-group analysis of latent means was used. For longitudinal differences, multi-group autoregression models were used. With Korean secondary students (gifted=164, normal=3,484) for three waves (Grades 7-9), we found no differences except for the longitudinal stability of victimisation. The victimisation of gifted at 7th grade were found to be more crucial in predicting subsequent victimisations, especially at 9th grade, than the normal group. This result implies the need for early intervention to prevent chronic victimisation of the gifted.

3.7.8 Bullying among gifted students

Halil Aslan
Science and Art Center
Ozgur Erdur-Baker
Middle East Technical University
Turkey

The purpose of this study is to examine traditional and cyberbullying among 177 Turkish gifted students attending science and art centres. Additionally, Information Communication Technology (ICT) usage of gifted students. The revised Olweus Bully/Victim Questionnaire was used to measure bullying and victimisation experiences of the gifted students. The revised Cyber Bullying Inventory II was utilised to measure cyber bullying and victimisation experiences of the gifted students.

3.7.9 Socio-emotional issues among gifted and talented students: Implication to guidance and counselling services

Rorlinda Yusof & Noriah Mohd Ishak*
University Kebangsaan Malaysia
Malaysia
Afifah Mohd Radzi

This study aimed to identify socio-emotional issues among gifted students. One hundred ninety-four students from PERMATAPintar National Gifted Centre, Malaysia were randomly selected to respond to the Socio-Emotional Issues Instrument. Descriptive analyses were used to determine the mean score of the variables. Results showed the overall mean of gifted students' socio-emotional issue was moderate (2.71, the sp: 7:39). Social justice (4.13) and perfectionism (3.12) were found to have a higher mean. Anxiety, procrastination, motivation, emotional, self-concept, social pressure, underachiever, and family relationships were at moderate levels. It implied the needs of guidance and counselling services for gifted and talented students.

3.8.1 A cross-cultural comparison of leading school models for engaging intellectually able students: USA and Australia

Leonie Kronborg
Monash University
Australia
Julia Link Roberts
Western Kentucky University
United States
Toni Meath
The Mac.Robertson Girls High School
Australia
Kate Mitchell
Box Hill High School
Australia
Roger Page
Nossal High School
Australia

Four academic schooling models providing for gifted and highly able students will be presented by leading educators with programs subsequently compared and contrasted. The Carol Martin Gatton Academy of Mathematics and Science, Kentucky, USA, is a residential school for high school juniors and seniors with access to Western Kentucky University. Three leading Australian government schools, Mac. Robertson Girls, a selective high school (Y9-12), Box Hill High School, co-educational for students (Y7-12), with a Select Entry Accelerated Learning (SEAL) Program (Y7-10), and Nossal High School, the first fully academically selective co-educational secondary school (Y9-12) in Victoria.

3.8.4 Learnings from a national community supporting professionals working with gifted and talented students in Aotearoa, New Zealand

Louise Tapper, Nadine Balla, Jo Dean & Andrea Delaune
giftEDnz: The Professional Association for Gifted Education (New Zealand)
New Zealand

Since its inception in 2009 giftEDnz, the Professional Association for Gifted Education in Aotearoa, New Zealand has rapidly become a major network base and source of support for professionals working with gifted and talented students of all ages. Within this symposium, elected board members from giftEDnz will share the strategies they employ to support professionals from all curricular sectors in their work with gifted and talented children, including a Speakers' Bureau, biennial conferences, and Special Interest Groups. There will be a Q & A session, in which attendees can ask questions about these initiatives and the challenges they have faced.

3.8.7 Realising potential: Practical programming for the highly able in the 21st Century

Mark Smith & Hayley Lewkowicz
Mentone Grammar School
Australia

This symposium sets out to demonstrate, through best practice, how a multi-faceted program model for highly able students, based on researched theory and built around the specific needs of its participants, can enhance learning opportunities for students, enabling excellent achievement outcomes. The focuses on development of skills, knowledge, creative ideas, and the benefits of collaboration between like-minded peers will be explored as a varied STEM course is shared. The impacts of questioning, research, and self-discovery will be analysed as students, past and present, share what engaged best with their learning style, providing launching pads for future growth and direction.

3.9.1 Professional learning in gifted education: Models, research, and practice

Laurie Croft
University of Iowa
Connie Phelps
Emporia State University
Wendy Behrens
Minnesota Department of Education
Kimberley Chandler
College of William and Mary
Christine Weber
University of North Florida
Dina Brulles
Arizona State University
United States

Recognised as the most important school-based factor for student learning, teacher quality is essential for gifted students. Teacher training programs around the world, however, rarely include “giftedness” or “gifted education.” While effective professional training comprises the “critical component of improving the quality of education” (Jones & Dexter, 2014, p. 368), teacher training targeting the nature and needs of gifted learners - and how to meet those needs - often has been optional or unavailable. This symposium presents exemplary models and research-based practices with applications for professional learning that meet the cognitive and affective needs of diverse gifted students.

3.9.4 Essential connections: Inspiring and promoting creative teacher leadership to transform gifted education

Gillian Eriksson
University of Central Florida
United States
Dorothy Sisk
Lamar University
United States
Margaret Sutherland
University of Glasgow
United Kingdom

What essential knowledge, skills, connections, and dispositions are needed by teachers of the gifted in a global and digital age of accountability and international comparative studies? Beyond this question is the urgent need to transform gifted education to engage teachers and learners in mutual creative problem-solving to address global challenges. This symposium will examine the role of the teacher and address this complex question in four parts: developing creative leadership; teaching and learning using authentic and virtual connections; examining “craft knowledge” and professional workplace learning; and the assessment of intervention strategies to promote creativity in training teachers of the gifted.

3.9.7 Making gifted education more inclusive

Gilman W. Whiting
Vanderbilt
Marcia Gentry, Nielsen Pereira & F. Richard Olenchak
Purdue University
C. Matthew Fugate
University of Houston Downtown
United States

In this session panelists address issues surrounding identifying, serving, and retaining diverse students from underrepresented groups, including those who come from Black, Latino, or Native cultures; who speak English as a second language; who come from low-income families; and/or who have been diagnosed as twice-exceptional. The facilitator will draw parallels and note differences among the panellists and facilitate discussion with audience members. Using the panelists’ work as a foundation, the environment of this symposium will be one in which what is known will serve to generate new research plans, innovative ideas for practice, and experimentation likely to enhance inclusion.

3.10.1 Elements that help or hinder the achievement of academically gifted and talented secondary school boys

Graeme Miller
New Zealand

This presentation explores how society, schools and teachers, family, and students’ own intrapersonal characteristics have impacted the academic achievement of 31 academically gifted and talented New Zealand secondary school boys (American and Australian, Grade 8). The mixed-methods pilot study is particularly pertinent given that the most recent annual report of the New Zealand Qualifications Authority (2016) shows a clear divergence in achievement between males and females in the upper secondary school. Overall, the most significant trends in the study’s findings relate to schools. These, and the other strong trends, will be discussed.

3.10.2 Identification of underachievement in ability grouped settings

Ruth Phillips
University of Wollongong
Australia

This presentation explores the findings of research investigating potential of using the School Attitude Assessment Survey-Revised (SAAS-R), the Self-Efficacy Scale for children, and the Social Coping Questionnaire as a tool to identify students at risk of underachievement. The study investigated the veracity of this approach using logistic regression analyses techniques and ROC curve analysis. Results indicated

that the variables motivation/ self-regulation and social self-efficacy and gender and school type were predictor variables that could identify students at risk of underachievement.

3.10.3 The effect of two interventions on high ability underachievers in an independent school

Lye Chan Long & Adrienne Erwin
Inaburra School
Australia

The presentation aims to report on a school-based action research project, IGNITE, studying the effects of using biographies as bibliotherapy and of differentiation techniques using the Maker Model to counter underachievement in a group of identified high ability underachievers at an independent school. The project uses the Achievement Orientation Model (Siegle & McCoach, 2005) as the framework and

foundation that guides the experimentation with the two strategies chosen. IGNITE will report on the results of a group of year 7 and 9 students.

3.10.4 Conditions gifted students and their peers prefer when working alone and with others on a challenging project

Lannie Kanevsky
Simon Fraser University
Canada

Canadian students (n=325) in Grades 6-8 with low, moderate, high, and gifted reasoning ability completed a survey assessing their preferences for individual and collaborative project-work under different conditions. Gifted students, like their peers, did not have a preference for learning alone or with others. They preferred both, under different conditions. The popularity of reliable co-workers, avoiding conflict, protecting their grade, competition, and working alone on Math projects increased with ability. The conditions most important to students' preferences for individual and collaborative project-work were heterogeneous within and across all ability groups.

3.10.5 Examining critical issues in gifted education: A case study approach

Wendy A. Behrens
Minnesota Department of Education
Christine L. Weber
University of North Florida
United States

During this session, the presenters will provide an overview of the characteristics of high quality professional development and the components of a case study which connects formal learning with authentic situations. They will introduce problem-

based scenarios as a vehicle to initiate exploration of critical issues in the education of gifted and talented learners. The presenters will model the presentation of a case study, with a dilemma that will engage the education professional and encourage detailed analysis and critical reflection. The methodologies presented will include discussion questions, activities, and further investigations intended to extend learning and enhance understanding.

3.10.6 Mapping gifted knowing and thinking in the classroom: A prelude to effective differentiated pedagogy

John Munro & Joseph Santoro
Australian Catholic University
Australia

This study reports the use of concept mapping to identify gifted knowing and thinking in the classroom. A cohort of 150 fifth graders was exposed to concepts from topics in science and history. They used concept mapping to generate possible relationships between the concepts. Semantic analysis was used to identify the quality and complexity of the relationships. The gifted students generated more valid propositions, more hierarchical links between concepts, and displayed fluid analogistic thinking. The domain of giftedness influenced the outcomes. The study shows how concept mapping can assist teachers to identify gifted learners, compile learning profiles and differentiate teaching.

3.10.7 Undertaking pedagogical change in an academically selective high school: The beginning of a journey

Mark Long
Penrith High School
Bronwyn MacLeod
Gateways Education
Ruth Phillips
University of Wollongong
Australia

This session shares the first stages of a journey of pedagogical change in a NSW Selective Secondary School and highlights the importance of leadership and vision in this ongoing process. The planning and delivery of professional learning processes, the development of differentiated curriculum, and the importance of faculty action research projects and summative and formative evaluation strategies will be discussed.

3.10.8 Re-establishing Perth Modern School as Western Australia's only fully selective school for academically gifted students

Lois Joll & Val Furphy
*Department of Education WA
Australia*

Perth Modern is WA's only fully selective academic school. Students come from across the state and more than 120 primary schools. The first cohort commenced in 2007 and graduated in 2012 as the school transitioned from comprehensive to selective. By considering the needs of the gifted, students can achieve within a supportive environment. Students report Perth Modern provides opportunities to meet like-minded peers, curriculum challenge, and opportunities beyond the classroom. The school is regularly the top school for median ATAR and students

earn more awards than any other school. This presentation will focus on strategies and processes that led to this outstanding success.

3.10.9 The trials and tribulations of establishing Australia's first fulltime school for gifted children

Lynda Simons
Dara School for Gifted Children
Christine Grzesik
*Flinders University
Australia*

From dream to reality, what regulations and policies support or impede the establishment of a gifted school in Australia? The dream began with a diverse group of people in Adelaide in 2013. Their hard work to date has culminated in the opening of Dara School for gifted children in 2017. Dara is an independent, secular, and coeducational school located in Adelaide. Its child-centred philosophy is designed to nurture the intellectual, social, and emotional development of gifted children. Each child at Dara has a Personalised Education Plan, and the Australian Curriculum supports flexible grouping to accommodate their asynchronous development.

3.11.1 Twenty years later: Revisiting attitudes of adolescent gifted girls and boys towards education, achievement, and the future

Jane Jarvis
*Flinders University
Australia*

Gender differences in career aspirations and outcomes has been an ongoing interest to researchers and educators, including the field of gifted education. In 1989, Reis, Callahan, and Goldsmith published findings from a study of intellectually gifted students' attitudes towards future educational options, career choices, family, and school achievement.

Their research also examined gender differences in gifted students' attitudes towards education, career, and family. This presentation will report about a study of gifted adolescents attending the same program two decades later, in which they were administered a questionnaire with many of the same items included in the original research.

3.11.2 The frustration inferno: Counselling gifted children experiencing chronic boredom and acute frustration

Fiona Smith
Gifted Minds Pty Ltd
Dominic Westbrook
*ACAP
Australia*

Most educators, medical practitioners, psychologists, and counsellors receive no specific training in working with gifted clients. Yet, by definition, gifted individuals are different from the norm, and practices that may work for others may not necessarily work for them. In this session, a psychologist and a counsellor-in-training will discuss the effects of chronic boredom and how easily extreme frustration can masquerade and be misinterpreted as mental health issues and learning difficulties.

3.11.3 Gifted girls speak out: A qualitative study exploring career development experiences of gifted adolescent girls

Rebecca Napier
*Flinders University
Australia*

This presentation provides an overview of a qualitative, cross-sectional study containing three separate data sets (N=18 total participants) exploring the question of how adolescent gifted girls develop their career priorities over time. It examines participant perceptions of influential factors on their career-related values, goals, and decision making processes. Participants from three selective entry gifted education high school programs in South Australia participated. This presentation makes a significant contribution by proposing a career decision making model of gifted adolescent girls. It also establishes a platform for an anticipated longitudinal study. Unique Australian gifted educational contexts framing this study are also outlined.

3.11.4 Cancelled

3.11.5 Promoting cultural relevance in the secondary classroom through arts integration

Kimberley Chandler
College of William and Mary
United States

To help gifted adolescents feel more connected to the standards in content-area classes and to inspire greater self-efficacy and success, incorporating songs, artwork, and literature from popular culture is an important strategy. In this session, the presenters will discuss the way in which the music, art, and literature of various contemporary decades can add a depth of understanding about the American people's experience and show how and why the social changes of each time period occurred. The session will include the introduction of graphic organisers and instructional strategies that promote higher order thinking and interdisciplinary learning through arts integration.

3.11.6 Talented and gifted: Music education for exceptional students

Marshall Haning
University of Florida
United States

Students with talents that lie outside the traditional domain of academic excellence are often even more overlooked and underserved than their intellectually advanced counterparts. In particular, students with extraordinary musical talents are often forced to seek extracurricular enrichment opportunities to reach their full potential. Beyond their value for these talented students, musical study and engagement can provide benefits for more traditional gifted students as well. This session will examine the benefits of high-quality music instruction for both musically talented and academically gifted students, including a review of the research literature and specific recommendations for practice.

3.11.7 Defensible identification: We can't lead differentiation if we don't know who we have!

Karen Rogers
University of St. Thomas
United States

In a recent grant funded project, the presenter found a viable way to develop and implement a "defensible" identification system that tells educational planner specific information that places students accurately into appropriately differentiated services and ensures that traditionally under-served populations with high potential are recognised and supported as well. The system developed as well as the support services provided will be shared with audience participants.

3.11.8 Multiple Identification Model for the gifted children in India

Anitha Kurup
National Institute of Advanced Studies
India
Shalini Dixit*
Ajay Chandra*

Addressing the socio-political untenability of a gifted education programme, the NIAS model attempts to demystify the concept and challenges the resistance to the idea of giftedness in India. Using Renzulli's (1985) model the NIAS identification protocol uses teacher nominations, followed by administration of general intelligence and creativity tests for mainstream schools. However, cultural psychology and activity theory suggest that community specific activities are authentic indicators of giftedness. Therefore, identification of gifted children among these communities uses community-relevant profiling and portfolio documentation as valid methods for rural/tribal children in India.

3.11.9 Cancelled

4.1.1 Homeschooling your gifted child

Noel Jett
University of North Texas
Nancy Shastid
United States

According to a recent report by the U.S. Department of Education, approximately 1.77 million students are homeschooled. For profoundly gifted (PG) students, homeschooling may provide an excellent alternative to traditional schooling. Homeschooling a PG child can be highly challenging, but ultimately beneficial. Hear from a parent who homeschooled her child from Kindergarten through high school, and from her 17-year old daughter, now a Ph.D. student in Educational Psychology. In this interactive session, presenters will share their perspectives and advice about the pros and cons of homeschooling, dispel myths, and provide a list of resources for participants.

4.1.2 Educating gifted learners at home: Perspectives and lived experiences

Charlton Wolfgang
Millersville University
United States

Parents of gifted children are increasingly expressing concern about the education of high ability students in America's public schools. Many of these parents are exploring alternative educational options for meeting their gifted children's unique learning and social/emotional needs. This trend is reflected in the fact

that the most rapidly growing segment of the homeschooling population represents those who choose homeschooling for academic reasons. This session discusses the findings of a qualitative study that explored the lived experiences and perspectives of families who homeschool their gifted children. Implications for parents and educators will be shared and discussed.

4.1.3 Feniks: a drop-out center for twice-exceptional high school students

Tijl Koenderink & Femke Hovinga
Take on Talents
Netherlands

Dropping-out of high school is a serious concern for gifted students, especially for twice-exceptional children. They are so creatively gifted they don't fit in the regular system. The result is an often depressed drop-out with low self-esteem. For those students, drop-out centre 'Feniks Talent' was founded in the Netherlands. During this session, the director will share his experiences and lessons learned. The presenters will talk about the possibilities of creating a drop-out centre and about how the students spend their days. Ample time will be spent discussing how to apply these lessons in your school and country.

4.1.4 The development and effects of a parent education program for creativity improvement using art activities and thinking tools

Sun-Hee An & EunHyun Sung
HaeYum Kindergarten
South Korea

The purpose of this study was to develop a parent education program using art activities and thinking tools, and to examine the effects of the program on parents' creativity, a creative family environment, and infants' creative characteristics. The present program consists of 12 sessions and each session lasts 90 minutes. Participants were 72 parents. The pre-test and the post-test were performed before and after the experimental treatment. The results of the present study indicate that our program for parents had significant effects on improving the creative family environment and infants' creative characteristics as well as parents' creative thinking.

4.1.5 Out on a limb!

Susan Nikakis
Catholic Education Melbourne
Geraldine Nicholas
Victorian Association for Gifted and Talented Children
Australia

Taking creativity into the classroom is taking teaching and learning "out on a limb". How can creativity enhance policy and hence curriculum practices in

today's educational frontier! The presenters will use a compare and contrast tool to review the increasingly important place of creativity in curriculum around the world and interrogate how it is impacting on 2017 curriculum.

4.1.6 Cultivating imagination with Elegant Problems

Sandra I. Kay
United States

When mathematicians, scientists, artists, and leaders refer to creative contributions in their field, they have often described the best solution as "elegant". This observation led to the realisation that posed problems need to be elegant as well. What makes a problem elegant? One part of a six-part answer is "worthiness." Problems, challenges, or assignments that demonstrate worthiness are meaningful for the discipline, the field, as well as the person. Developing Elegant Problems is a problem-based approach to curriculum design that engages the imagination and encourages creative thinking from the teacher as well as the students.

4.2.1 What role does reflective thinking play in assessing the understanding and growth about differentiation?

Christine Weber
University of North Florida
Wendy Behrens
Minnesota Department of Education
United States

What role does reflective thinking play as educators begin to assess their understanding and growth when adopting and implementing a philosophy for differentiating curriculum and instruction in the classroom? In this session, prompts or stems to encourage educators to question their classroom practices and whether these practices support differentiation and the goal of improving teaching will be shared. Participants will also have an opportunity to examine a rubric helpful to assess areas for growth related to differentiation such as pedagogical understanding, critical thinking, personal growth, and transformation learning.

4.2.2 The investigation of metacognitive levels of elementary teachers

Çiğdem Nilüfer Umar
Okan University
Turkey
Gülşah Batdal Karaduman*

The aim of this study is to measure the metacognitive skills of elementary school teachers. In the study, a Personal Information Form prepared by the researchers and a metacognitive scale were

administered. Information about the classroom teachers in the study (N=80) for metacognitive levels for gifted children education include the task done, grade levels, years of service in the profession, gender, education level, and number of students they lead to related institutions. These data were examined and analysed, according to the gifted report. Metacognitive skills are important, and elementary teachers' metacognitive skills should be developed as they teach gifted children.

4.2.3 Interactions between high school teachers and a gifted student in a mixed-ability classroom: Teachers' response styles

Naama Benny
*The Givat Washington Academic College of Education
Israel*
Ron Blonder*

Gifted students (GS) spend most of their time in mixed-ability classroom settings. Interactions between teachers and students are core occurrences that trigger class events. The teachers' way of conducting and responding during interactions with students may affect the learning opportunities provided for GS. In a research project focused on teacher narrative of their interactions with GS, the analysis led to characterise five teacher response styles (e.g., The blocker, The initiator). Each style has its own characteristics (e.g., control participation, create learning opportunities) and has a different effect on the learning opportunities available for GS. This research has important practical implications.

4.2.4 The making of a modern day Renaissance man: The unique case of Jozef Erece

Maynard Erece
*St. Augustine's College
Australia*

Jozef Erece is a Renaissance man: a lawyer, an author, a third-degree black belt, an orchestra violinist, a world class basketball player, a chess player and an entrepreneur, all at the age of 18. This presentation will focus on specific insights into special developmental milestones and parental strategies made in reaction to these milestones. It also attempts to describe the excellent collaborative work done in this special case to stimulate, nurture, and develop gifts and talents in an extreme case of accelerated learning from a parental viewpoint.

4.2.5 Is it a problem if Australian schools don't foster mathematical promise? Parent perspectives and implications

Simone Zmood
*Monash University
Australia*

Concerns have been raised, over the past few years, with the performance of Australian students on international testing such as PISA and TIMSS. In particular, a decreasing proportion of students is reaching the highest levels of performance in numeracy and mathematics. Findings from a recent Australia-wide online survey of parents about fostering the mathematical promise of their children with high potential in mathematics will be discussed to shed light on school programs and impacts. The results have implications for talent development goals and responsibilities at the parent-child levels and for the wider community.

4.2.6 Experiences in unleashing talent of twice-exceptional students in a homeschooled situation

Raquel Bronsoler
*Universidad de los Niños
Mexico*

The researchers applied various strategies from an afterschool program for gifted children into a homeschool setting for twice-exceptional children. The goal was to create the environment to nurture children's abilities without allowing the learning difficulties to stunt their development. The presenter will analyse different strategies and give advice about how to develop afterschool programs for homeschooled children. This program creates opportunities to nurture talent. These successful strategies allow students to develop their academic, social, and emotional sides. Students turn into well rounded individuals with the ability to think and make the best choices. Students develop into intrinsic, self-motivated lifelong learners.

4.3.1 Embedding gifted education in regional pre-service teacher education

Margaret Plunkett
*Federation University
Australia*

Giftedness is not a topic that receives much coverage in pre-service teacher education programs within Australia, particularly in regional areas. Very few universities embed core units in their teacher education degrees, and even those offering elective units are sparse. A lack of understanding of giftedness has been related to less positive attitudes, inappropriate provision, and lack of support for gifted students. This paper will present a range of research findings from a longitudinal project in a regional university in Victoria, Australia, related to attempts to increase awareness and understanding of giftedness and gifted education in pre-service teacher education.

4.3.2 Creativity as described by young, Ekphrastic Poetry Contest winners

Martha Champa
University of Toledo
United States

“There is no time for creativity. We have too much content to cover” are words often heard in educational settings. However, the eight young creators who participated in the presenter’s study have strong opposing beliefs about creativity in schools. This session will give a brief background to how this study came about, present the findings of this qualitative, descriptive case study, and conclude with the implications of the findings. Hopefully, their experiences with creativity will illuminate the value of creativity in the lives of young learners and give insight into how creativity impacts their learning and their well-being.

4.3.3 Can I handle this highly-intelligent but maladjusted gifted student? International comparison of gifted stereotyping

Svenja Matheis
University of Koblenz-Landau
Franzis Preckel*
University of Trier
Germany
Leonie Kronborg
Monash University
Australia

Teachers’ conceptions of giftedness influence which students they identify as gifted, while these conceptions depend on teachers’ cultural background. The presenters assess and compare pre-service teachers’ attitudes towards gifted students in Germany and Australia. Pre-service teachers read short descriptions (i.e., vignettes) of a student, who varied in ability level (gifted/average) and sex (girl/boy), and indicated their attitudes towards the student (dimensions: intellectual ability, social-emotional ability, maladjustment). Furthermore, they rated their own motivation in teaching the student (dimensions: enthusiasm and self-efficacy). Their results indicate an association between pre-service teachers’ attitudes and motivational variables which could affect how they behave towards these students.

4.3.4 Belonging: Young gifted children starting school

Anne Grant
Deakin University
Australia

Teachers know, a young child needs to feel they belong at school before they can engage in new learning. Yet there is little information about how a young gifted child establishes a feeling of belonging

(attachment) and what behaviours identify this process. A year-long qualitative case study, exploring influences on young gifted children entering a new learning environment, provided rich data about everyday adjustment by these children, including the influence of attachment behaviours. It is important teachers are aware of this aspect of transition and how it can affect a gifted child’s engagement in the learning program.

4.3.5 Meeting young children’s emotional needs through transitions

Jo Dean
Massey University
New Zealand

There are many misconceptions around children’s emotional sensitivities in new situations. Often young gifted children are seen as capable and confident learners in an early childhood context; however, moving from a secure setting into a new unknown setting can be very daunting. Changes through major transitions can create high anxiety levels if supportive strategies are not put in place. Equitable transition processes ensure children with diverse learning abilities develop a sense of confidence, trust, and belonging in a new setting. Positive strategies to support anxious gifted children through transition will be identified through a New Zealand context.

4.3.6 Global perspectives on the Tall Poppy Syndrome

Connie Phelps, Bailey Carter & Abby Phelps*
Emporia State University
United States

Dating to ancient Rome and persisting through the centuries, the “Tall Poppy Syndrome” occurs when persons of elevated rank encounter aggression from peers with resentful attitudes toward their high status. In a “zero-sum game”, the rising of one person must achieve a balance by causing another to fall. Similarly, gifted children may experience an “underdog” status when less capable peers resent or envy their giftedness and talents. This session addresses affective needs, survival strategies, and proactive advocacy related to the Tall Poppy Syndrome through global perspectives gained by grown up gifted children, their parents, and seasoned educators of the gifted.

4.4.1 Creative characteristics and strategies for developing creative potential in teachers’ perception

Jane Farias Chgaas Ferreira
University of Brazilia
Brazil

This research aimed to describe how teachers perceive the creative characteristics in themselves, other people and their students and how they establish strategies to develop creativity in the classroom. The participants were 75 teachers of basic education. The results revealed that there are differences in the teachers' perception related to gender, age and teaching time. Personality traits, creative thinking skills, and academic and artistic skills were most recognised by teachers, while the strategies and activities adopted were associated with the expression of ideas and the production of texts and drawings. The need for investment in teacher training was evidenced.

4.4.2 Counselling parents of gifted children: A Brazilian experience

Denise Fleith
Daniela Vilarinho-Rezende
University of Brasilia
Brazil

This presentation aims to describe a counselling service for parents of gifted children implemented in a Brazilian university. The main purpose of this service is to provide parents an opportunity to explore concerns and difficulties they face in raising a gifted child, to receive information about giftedness, and to discuss strategies to be applied in the family context to enhance children talent development. The activities implemented and the dynamic of the meetings are described. The outcomes reported by the participants of this service are also presented. The presenters will discuss problems faced by these families and the importance of guiding them.

4.4.3 Enabling parents, enabling children

Julia Bailey
Darra State School
Australia

In 2015, the presenter led advocacy by way of parent guided study groups about giftedness. Seeking to shift parent support meetings towards more productive and sustainable learning opportunities, she set about to embed facilitated guided study groups using six key areas of understanding giftedness to not only provide a pathway for parents to understand their gifted children, but to enable them to have credible conversations with key educational stakeholders. This session will review the data collected, share the model that was implemented, and how parent education contributes to a better understanding of the social, emotional, and educational needs of gifted learners.

4.4.4 Parenting gifted children 101: An introduction to gifted kids and their needs

Tracy Inman
Western Kentucky University
United States

This session shares an introductory mini-course for parents who want to better understand and help their gifted child. Educators are encouraged to replicate the course in their schools. Topics include myths, the hows and whys of advocacy, strategies for partnering with schools, and more. The course explores ways for parents to help their child at home and maximise their child's educational experience with strategies that are based on research, but easy to implement. Insights from dozens of parents and educators of gifted children will be shared. Participants will leave with information and resources to better educate and partner with parents.

4.4.5 A process oriented talent development model for guiding gifted children

Desirée Houkema, Nora Steenbergen-Penterman & Yvonne Janssen
SLO
Netherlands

Self-knowledge is fundamental in the complex and ongoing process of talent development, which is influenced by many factors (personal characteristics and environmental factors). It is important and challenging for gifted children to discover how it is possible to invest in their own development in a way that fits them, given the available opportunities in their specific context. A process oriented model of talent development has been developed as a means to improve communication and mutual understanding, and to gain deeper understanding of supportive and hindering factors, which can be used to guide and counsel gifted children.

4.4.6 Early childhood inclusion in care giving: Exploration into policy and practice for gifted children

Mahal Hosne Tilat* & Zahirul Islam
Jahangirnagar University
Bangladesh
Hossain Md. Monir*

This research is concerned with early childhood inclusion in care giving. Inclusion is an approach to children with diverse abilities ensuring that they can live, play, and learn together. Using a mixed methods approach that combines quantitative and qualitative research techniques, the presenters identify and analyse explicit and implicit policy and practice of inclusion regarding gifted children in Bangladesh. The research attempts to add to existing knowledge in the field of inclusion as well as inform policy and practice.

4.5.1 Development and validation of Self-Directed Learning Ability Test

Suyeon Kim, Hyesung Park & Kyunghwa Lee
Soongsil University
South Korea

The purpose of this study was to develop and validate the "Self-Directed Learning Ability Test". Based on previous studies, three domains (cognitive, motivational, behavioural) and variables were selected. The cognitive domain includes cognition, meta-cognition, and problem-solving. The motivational domain composed of intrinsic and future-oriented motivation and self-efficacy. The behavioural domain composed of seeking assistance, physical environmental management, and time management. The self-directed learning ability test could be taken by elementary school students to adult learners. The procedure included preliminary surveys (N=160) and a main survey (N=400) with 45 items. The collected data were analysed through exploratory and confirmatory factor analysis for validation.

4.5.2 Identifying gifted students in multiple areas and targeting strategies to turn potential into performance

Brooke Trenwith
Cognition Education Ltd
New Zealand

This parallel session will look at identifying the learning and social and emotional needs of potential gifted students in six areas (intellectual abilities, creative abilities, personal/social qualities, athletic ability, visual and performing arts, and technological abilities). It will address how to meet their needs using a range of strategies and using Google Apps for Education to track identification, provision, and performance. The resources have been based on François Gagné's Differentiated Model of Giftedness and Talent (2012) and look at how to identify potential and target provision to enhance performance.

4.5.3 Using the Comprehensive Test of Nonverbal Intelligence-Second Edition (CTONI-2) in identifying gifted students in Oman

Mohamed Ahmed
Sultan Qaboos University
Oman

The purpose of this study was to use the Comprehensive Test of Nonverbal Intelligence (CTONI-2) in identifying giftedness. Participants of the study constituted a national representative sample of about 1000 students selected randomly from elementary, middle, and secondary schools in Oman. The exploratory factor analysis results showed that all subtests loaded on a single factor. Also, the results showed an evidence of reliability as Cronbach's

alpha values ranged from .82 to .94 for the six subscales. The MANOVA results indicated that males outperformed females in the geometric scale while females showed more developmental progress in the pictorial scale.

4.5.4 Bright to brilliant: Coaching for high ability children and their families

Alan D. Thompson
Life Architect
Australia

The worldwide body for coaches - the International Coach Federation - defines coaching as partnering with clients in a thought-provoking and creative process that inspires them to maximise their personal potential. Bringing coaching out of the boardroom and into the playroom (and classroom) is certainly new. Applied to high ability children and their families, coaching allows potential and capacity to be realised earlier. Presented with new and rigorous research from the fields of Positive Psychology, the use of higher-order questioning, and the efficacy of strengths-based assessments, this comparatively new field is explored from theory through to practice.

4.5.5 Predictors of STEM career intentions for gifted international exchange students with Australian educational experiences

Peta K. Hay & Jae Yup Jung
University of New South Wales
Australia
Tay T. R. Koo*

This mixed methods study investigated the predictors of STEM career intentions for gifted Brazilian undergraduate students with educational experiences in Australia. In the first phase, interviews were undertaken with 22 gifted Brazilian exchange students studying in STEM fields. Thereafter, the emerging themes were assessed using a survey completed by 374 gifted Brazilian exchange students. The findings indicated that intellectual stimulation predicted STEM career intentions for participants who had recently arrived in Australia, while intellectual stimulation, employment prospects, and income predicted STEM career intentions for participants who had studied in Australia for more than three months.

4.5.6 Reading fiction as existential inspiration for the gifted

Paula Christensen
Northwestern State University of Louisiana
United States

Gifted students often think and feel in different ways than other students. Existential philosophy can be one way that can direct gifted individuals to reach their

potential. Engaging in reading literature provides rich content and context that can provide inspiration for the gifted. Gifted students have shared how reading novels helps them in making choices, finding purpose, and being responsible for their lives. This presentation provides information about how gifted students gain existential inspiration from reading fiction.

4.6.1 Gender, levels of intelligence, academic performance, and perfectionism in Indonesian gifted and non-gifted students

Fitriani Yustikasari Lubis
University of Indonesia
Indonesia

Lydia Freyani Hawadi*
Rose Mini Agoes Salim*
Urip Purwono*

Perfectionism is a characteristic commonly associated with gifted individuals. Much has been learned about perfectionism, but few studies have been conducted in Indonesian gifted and non-gifted students population. The current study examines gender, levels of intelligence, and academic performance as predictors of student's perfectionism. The participants of the study were 169 students ages 18-20 (33 males, 136 females) recruited from The Faculty of Psychology in Indonesia. All participants completed Frost Multidimensional Perfectionism Scale translated into the Indonesian language. Multiple Regression showed that levels of perfectionism was significantly predicted by student's level of intelligence and gender, but not academic performance.

4.6.2 Finding Control in Chaos: Understanding Perfectionism, Substance Abuse, and Self-Destructive Behaviour in Gifted Students

Kate Burton
Alchemy Therapy
Australia

The link between perfectionism and gifted students is well documented. However, there is a relative dearth of literature in relation to substance abuse and self-destructive behaviour in this population. Both perfectionism and addiction are indicative of low self-esteem, yet they are also suggestive of grandiosity. This paper explores this paradox, suggesting that for some gifted students such behaviour can be viewed as a "disease of disconnection" or a "developmental disorder"; the emergence of an emotional state that demands a pathological self-soothing mechanism. But why do some gifted students develop such dysfunctional behaviours, and what can we do to help them?

4.6.3 School library user stereotypes – the students speak out! A mixed method study exploring the role of secondary school libraries in the lives of gifted students

Mariusz Sterna
Flinders University
Australia

Currently there is limited research available regarding the role that school libraries play in the lives of gifted students. This mixed-methods research provides insights into how secondary school students perceive, stereotype, and treat students considered to be the regular school library users and who often self-identify as academically gifted. The research explores and contrasts the similarities and differences in the perceptions of the regular school library users by those students who self-describe as academically gifted and those who do not identify themselves as gifted. Several potential implications of the reported peer stereotyping are discussed, including well-being and academic achievement.

4.6.4 Developing the talent of students

Srinivasan Muthusamy
GEAR Innovative Intl. School, Bangalore
India

Learning to know, do, collaborate, and be are the four key dimensions of education. We need to shift our focus to developing the talent of students in our classrooms. Play, passion, and purpose are three components of education that help develop talent. Adoption of Montessori philosophy, which promotes play and freedom to explore, emergent curriculum, and multiple intelligences will help develop talent. GEAR is a living model that helps with talent development.

4.6.5 Performance in working memory and attentional networks in gifted children

Alexandre Aubry
CRP-CPO [Research Center in Psychology: Cognition, Psychism, Organizations] (EA 7273)
France
Béatrice Bourdin*

The aim of this study is to explore the working memory capacity (WMC) and its determinants in intellectually gifted children (IGC) and intellectually average children (IAC). The relationship between the WMC and intelligence seems to be explained by attentional abilities. Thus, the presenters used a composite and adaptive complex span task to assess the WMC. In addition, they assessed the attentional abilities with the Attention Network Test (ANT). Their results show that IGC have a higher WMC than IAC. They discuss this WMC difference between both groups, in light of the attentional networks evaluated by the ANT.

4.6.6 Building a new gifted and talented program in Saudi Arabia

Robyn Collins
The King Abdullah University of Science and Technology
Saudi Arabia

This session looks at a new program in an International Baccalaureate School in Saudi Arabia, how to establish a new program, and considerations in an international context.

4.7.1 Singular and plural: Balancing individually differentiated curriculum with cohort and group learning in gifted education

Jill Williford Wurman & Melissa Bilash
The Grayson School
United States

An all-gifted school environment with instruction individually tailored to the needs and capabilities of each student is often envisioned as the ideal. However, we also know that students benefit tremendously from learning together, whether in discussion groups or through collaborative work. How can one school - and, indeed, each teacher within that school - balance these competing paradigms so students may benefit from both? In this session, the presenters will share practical techniques that have proven successful in an all-gifted environment, as well as specific examples of how this delicate balance can be managed on a day-to-day basis.

4.7.2 Cluster grouping at OLCG: Meeting the needs of gifted learners in a mainstream setting

Janet Agostino
Our Lady of Good Counsel School
Australia

The cluster-grouping model was introduced to a mainstream Catholic primary school in a 2012 pilot project designed to address the needs of identified gifted learners. The program was successively expanded through the Diverse Learners team and the school currently (2017) has cluster groups in Years 1-6. The cluster grouping strategy was selected

due to strong research evidence reporting to “deliver a full-time cost-effective programme for gifted and talented students” (Biddock, 2009). This model represents best practice in a mainstream setting and has relevance for school educators interested in meeting the needs of high-achieving gifted students.

4.7.3 Making it work: Supporting and measuring growth in a gifted cluster grouping model

Dina Brulles
Arizona State University
United States

In many countries cluster-grouping has become a prevalent model for serving gifted students. Schools experiencing success with the model have methods in place for measuring and documenting growth. Learn how to prepare for program evaluation in your cluster-grouping model by creating systems that track student achievement, determine necessary training, and monitor student populations identified and served. Participants learn to use school data to effectively plan advanced C&I, identify criteria for documenting student performance, provide requisite teacher training, and make effective student placements. Achievement studies for all students in schools that cluster group gifted students will be shared.

4.7.4 Long-term effects of grade skipping – spanning 70 years

Annette Heinbokel
German Association for the Gifted Child - DGhK
Germany

In 2012, adults born between 1917-1987 were asked about their experiences with grade skipping. There were few problems concerning achievement, though a third of the children were bored again after skipping. Slightly more boys than girls had social problems. This could be improved by being good at sports. A few more boys than girls profited socially from skipping. With very few exceptions they passed the German equivalent of the A-levels and advanced in their studies. In the end, 90% of the women and almost 80% of the men would skip again if circumstances were the same.

4.7.5 To accelerate or not: Negotiating the secondary mathematics curriculum with mathematically able adolescent females

Julie Bartley-Buntz & Leonie Kronborg
Monash University
Australia

This research examined mathematically able female adolescents' perceptions of their accelerated mathematics programs. This qualitative research had eight female participants reflect retrospectively in response to a self-administered questionnaire on their perceptions and experiences of a secondary accelerated mathematics program and their engagement in the Australian Victorian Certificate of Education subject Mathematical Methods Units 3 and 4 as accelerated Year 11 students. The qualitative findings revealed that the female participants had a positive recollection of their accelerated mathematics.

It is proposed that this Australian data provides support to the educational practice of accelerating mathematical learning for highly mathematically able adolescents.

4.7.6 Acceleration: A prominent curriculum option for gifted students

Gail Young, Kathlyn Dyer* & Neil Adams
Holland Park State School
Australia

The research supporting acceleration as a program option for gifted students and its positive outcomes are well documented. Acceleration is an educational strategy that ensures a gifted student is given a level of educational instruction commensurate with their abilities and sufficiently challenging to stimulate, maintain, and sustain academic and affective growth. Acceleration needs to be well planned, implemented, and reviewed in light of the best available data. This symposium will give an overview of Holland Park State School's acceleration process, highlight research evidence, consider issues, and analyse case studies of acceleration.

4.8.1 “But I’m a second-grader!” Benefits and challenges of gifted acceleration

Marshall Haning
University of Florida
United States
Rachael Haning
Riverside Elementary School
United States
Emily Edwards
St. Andrews Cathedral School
Australia

Acceleration has long been championed by stakeholders in the education of gifted children. Many of the benefits of acceleration, however, are dependent upon the proper implementation of acceleration strategies. This symposium will include a variety of perspectives on acceleration, structured by and viewed through the lens of one gifted student's personal experience. Practising gifted educators from Australia and the United States will provide professional perspectives about his story, and a leading authority on gifted education will provide context and links to the research literature. Implications and recommendations for practice will be discussed.

4.8.4 Cross cultural instrumentation for gifted education research and programming: Purdue’s repository

Marcia Gentry, Rachael Kenney & Yukiko Maeda
Purdue University
Nielsen Pereira
College of Education, Department of Educational Studies
C. Matthew Fugate
University of Houston, Downtown
United States

In this session, presenters showcase a recent website available through their center that contains a collection of instruments that researchers can download and use in their own research and that practitioners can use in their identification, programming, and evaluation efforts. A brief overview of these instruments, their psychometric properties, and the populations and cultures with which they have been studied will be presented together with complete references of development of and research with these instruments and a demonstration of the website where they are available. The presenters will share TOF, MCA, SPOCQ, HOPE Scale (not downloadable), CPS-Revised, among others.

4.9.4 The creative spirit: Actually, not figuratively

C. June Maker
University of Arizona
United States
Dorothy Sisk
Lamar University
United States
Manoj Chandra Handa
NSW Department of Education
Australia

The three panel members will present their personal experiences, research, and practice; challenge existing assumptions about creativity and the creative process; and discuss how spiritual and psychological components come together in the creative process. After each panel member has made an initial presentation, they will pose two questions to the audience and the panel (A) How can this research and these ideas be implemented by teachers, administrators, counselors, and parents/caregivers? (B) What are some challenges you might face, and how would you meet these challenges?

4.10.1 Insights into practice and research of William-Stern-Association for gifted research and gifted education

Nina Krüger, Mieke Johannsen, Marguerite Peritz & Mara Ohligschläger
Universität Hamburg
Sören Fiedler & Mara Suhren-Geipel
William-Stern-Gesellschaft für Begabungsforschung und Begabtenförderung e.V.
Germany

This symposium is intended to provide insights into the work of the William-Stern-Association for gifted

research and gifted education (WSG). The WSG is a non-profit organisation that researches psychological and educational problems concerning gifted children and adolescents. Research about diagnostics and counselling as well as the relation of intelligence, need for cognition, and school grades will be presented and discussed. The aim of this symposium is to establish new contacts as well as exchange views with other organisations and programs that are concerned with gifted research and fostering to enable a sustainable exchange.

4.10.4 When the world is just too rough: Twice-exceptional gifted children with sensory processing disorder

Yee Han Chu & Bradley Myers
University of North Dakota
United States

Many gifted children demonstrate behaviors that interfere with daily functioning. Unfortunately, mental health evaluations sometimes fail to identify the expected attention, behavioral, or developmental disorders that these symptoms would typically indicate. A regularly overlooked diagnosis is Sensory Processing Disorder (SPD), a neurological disorder that results in atypical reactions to sensory information. A pilot study showed that while the prevalence rate for SPD is 5% among the general population of children, the prevalence among gifted children is 35%. This presentation will review the research on SPD among gifted children found in the gifted education, special education, occupational therapy, and medical literature.

4.10.5 ADHD and the gifted child: Dual exceptionality or paradox?

Melinda Gindy
Australian Association for the Education of the Gifted and Talented
Australia

There exists a pervasive belief that behaviours which may be characteristic of ADHD in some children

can be explained by other means in gifted children: "He is just bored and acts out" or "He is just lazy". Although such behaviours in gifted children do not necessarily equate to a diagnosis of ADHD, the possibility should not be automatically discounted. By seeking a deeper understanding of ADHD through current research, examining the sub-types (or presentations), understanding the impact ADHD can have on the child's life and learning, as well as consulting with professionals, one can determine the factors at play for individual children.

4.10.6 Which gifted students are more likely to become disengaged from regular secondary education? An analysis of learning profiles

John Munro
Australian Catholic University
Australia

This study examines the learning characteristics of gifted adolescents in years 9 to 10 who become disengaged from regular school. It is often proposed they display high creativity. The study compared their creative thinking profiles with those of peers who remained in regular classrooms and those who stayed in their school but not in their class. The profiles comprised non-verbal and verbal ability, sequential processing, creative ideation, and creative thinking. The three cohorts differed in their profiles. Those disengaged from school differed in all aspects except sequential processing. The findings help teachers assist gifted students who might become disengaged.

Poster Presentations

Posters will be displayed on boards in the Clancy Auditorium Foyer throughout the Conference and registrants are welcome to view them at any time. Poster presenters will need to put posters up on Thursday and take them down by Sunday afternoon.

There are scheduled poster presentations as follows:

Poster presentations Friday 21 July	
Clancy Foyer 3:30-4pm	Posters numbered 1-13

Poster presentations Saturday 22 July	
Clancy Foyer 4-4:30pm	Posters numbered 14-27

1. Accounting for creativity: English teachers' understandings of creative practice across different educational contexts

Narelle Wood
Monash University
Australia

This poster explores the findings of research about English teachers' understandings of creativity and creative practice, conducted across different education sectors, including supplementary gifted and talented programs. A narrative inquiry based approach was used to generate the data, as teachers were encouraged to speak about creative experiences, reflect upon their teaching practice, and identify what they considered to be examples of creativity in their students. Teachers discussed their views of creativity and its place in education, as well as the effects of assessment and the limitations and opportunities for creativity in different contexts.

2. Alternative education options for gifted and twice-exceptional children

Kathleen Humble
Gifted Homeschoolers Forum
Australia

For many years, pathways have existed for gifted and twice-exceptional children to pursue alternative education options, such as Beach High School (<http://beachhigh.education/>) in California, USA, and the proliferation of micro-schools catering to 2e children (Rivera 2016). Yet it is only very recently

that such options have become more widespread in Australia. This presentation will posit that with the alternative education options, the stark divide between homeschooling and school has been replaced with a broad spectrum of different options. Many of these options, such as online remote learning, have become a real possibility in recent years.

3. An exploratory study about the social and emotional development of gifted children

Ehun-Shik Moon
Kangwon National University
South Korea

The purpose of the current study was to explore the social and emotional development of gifted children. To accomplish this purpose, the study explored theoretically the concept of and the variables related to gifted children's social and emotional development. Based on the previous research and theoretical considerations, the study suggested the educational tasks for improving gifted students' social and emotional development: Improving their autonomy, making and sustaining successfully their interpersonal relationships (the quality of relationships to parents, teachers, and friends), harmonising their achievement adjustment with their process adjustment, and facilitating their self-esteem.

4. Another theory of relativity: Giftedness as conditionality

Owen Lo
University of British Columbia
Canada
Kuei-Fang Tsai*
Chen-Ming Chen*

Emerging thoughts about giftedness see it: 1) as a socially constructed entity that constantly evolves with our society, 2) as an inclusive non-normative guiding framework that seeks out each individual's unique giftedness and talents, and 3) as a recursive person-in-situation realisation that depends on the complexity of a system and the dynamics between an individual and his/her environment. These thoughts are quite different from the either-or reductionist model that sees giftedness as a static condition. This presentation will provide pedagogy and a definition that corresponds to the systemic, dynamic view of giftedness.

5. Early Entrance Program for Saudi Accelerated Students

Jawaher Bin Yousef
University of Southampton
United Kingdom

This study will examine the transferability of the successful practice of an American school for accelerated students to the Saudi context. The US school applies programmes for accelerated students as a form of Early Entrance Program and other special programmes that address the needs of accelerated students in grades 8-11. The school will be proposed for Saudi universities that receive government financial allocations.

6. Middle school students in full-time gifted programming

Lenae Lazzelle
Springfield Public Schools
United States

This presentation is an informational account of a 20-year program created to identify and serve the full-time educational needs of highly gifted middle school students within a centre-city high school.

The presenter will lead participants in a group discussion about student success and achievement within gifted programs including accelerated curriculum, student experiences, technology, and community partnerships.

7. Mirrors

Mohammad Awadh Rawas
Ministry of Education
Saudi Arabia

The mirrors reflect the identification of the tendencies, interests, capabilities, objectives, and patterns of learning for the student to provide special services according to their highest strength points. A set of substantive tools will be used, which have their psychometric properties taken into account in the local environment such as multiple intelligences measurement, the evaluation of behavioural attributes measurement, and the methods of expression measurement. It also includes unofficial measurements which consist of a group of assignments that depend on the specialised observation of timely performance levels which allows decisions about the comprehensive differentiation file of the student.

8. Peer perceptions of academically high-performing adolescents in regular classrooms: A country-comparative analysis of gender and academic achievement level

Hyerim Oh
Friedrich-Alexander-University Erlangen-Nuremberg
Germany

This comparative international study investigated how students in mixed-ability seventh-grade classrooms in six countries (Australia, UK, Spain, Peru, South Korea, and Vietnam) perceived a fictitious academically able peer. Using a hypothetical figure in each country group, empirical research data was gathered through quantitative methods. Gender issues were explored through the gender of the perceiver and the gender of the high performer. The fictitious high-performing students' intellectual ability, positive social traits, and popularity were detected differently among the countries in the gender of the perceiver. Only the popularity of the high-performing boy and girl was differently expected among the country groups.

9. Peer perceptions of talented students in Korea

Myung-Seop Kim*
Seon-Young Lee
Keunchan Baek
Seoul National University
South Korea
Jongho Shin*

The purpose of this study is to investigate the peer perceptions of talented students. The presenters asked students to describe their thoughts about the talented students. They distinguished talented students into academically high-achieving, gifted, and creative students. A total of 319 middle school students participated in this study. Factor analysis showed that there were seven peer perceived characteristics of academically high achieving, six characteristics of gifted, and six characteristics of creative students. The results showed that Korean students distinguished academically high achieving, gifted, and creative students differently. Overall, peers perceived talented students positively.

10. Professional development and acceleration: Changing attitudes and practices

Susannah Wood* & Laurie Croft
University of Iowa
United States

Acceleration, in its various forms, has had a robust history of research support as a programmatic option for gifted students. There is no guarantee, however, that educators have been exposed to the practice of acceleration. Professional development (PD) is one

option for educators who want to better understand the importance of acceleration. The most important features of PD are the examination of educator attitudes around its practice, and internalisation of the knowledge and skills that facilitate acceleration. This poster session will present strategies for identifying and addressing beliefs towards gifted students and acceleration and components of individualised professional learning plans.

11. Teach from the heart: Meeting the social-emotional needs of diverse gifted learners

Vickie Crockett
TEACH Educational Consulting, LLC
United States

Gifted children possess a higher level of sensitivity in the area of social and emotional development. This heightened awareness has a direct impact on the performance and success of gifted students. Thus, it is imperative that educational professionals develop an instructional model that incorporates these internal needs into the classroom. In this session, the presenters will analyse how brain research, psychological theory, and educational pedagogy can be combined to deliver an emotionally aware curriculum that ministers to the SEL of the intellectually gifted learner.

12. The context of cultivating creative and innovative talents under the contemporary maker movement: An analysis of American cases and Taiwan's experience

Yung-Ling Chi
National Taiwan Normal University
Taiwan

Taiwan's government has made a prolonged effort in fostering creativity in students. This research aims to conduct in-depth interviews with makers who have set up leading makerspaces in formal and informal educational systems in Taiwan, and to explore the context of these spaces which help people to develop creativity and innovation skills. Simultaneously, the researcher also analysed the successful experiences of famous creative learning environments (e.g. the MIT Media Lab) in cultivating creative people and further learned from their ideas and operating models.

13. Tournament of Minds: a six-week challenge or a lifetime of valuable skills?

Tanya Atherton
Sacred Heart College
Australia

Tournament of Minds (TOM) is an Asian-Pacific Competition that has been operating since 1987. This year it had over 40,000 participants from Australia

and internationally. It teaches 21st Century skills and, importantly, it is fun! This session outlines how creativity is developed. Receive challenges and hear results of a qualitative study where past competitors reflect on their experience. Now in their twenties, they discuss the impact the skills and attitudes they gained from TOM have had on their post-secondary lives. This small-scale research will throw light on an educational experience from the students' perspective. Be inspired!

14. A narrative journey of a profoundly gifted student in mainstream schooling

Kylie Booker
AISM
Malaysia

This research explores a profoundly gifted student, Ruby, narrating her story to produce new knowledge to enhance how teachers engage with profoundly gifted children in education. Through these stories, it is envisaged she will come to understand her experience and share her school experiences with others in a holistic form, which is not 'fractured' by researchers. Stories about profoundly gifted students are not often heard. The researcher attempts to demonstrate that in telling Ruby's story, there is more than one reality, beyond the beliefs and perspectives of educational professionals.

15. A study on the use of formative feedback and growth portfolio to enhance self-regulatory capacity amongst high-ability learners.

Rohaida Ismail
NUS High School of Mathematics and Science
Singapore

This case study examines how formative feedback may help in enhancing the capacity of high-ability learners (HALs) to self-regulate in the learning of a second language. Despite self-regulatory learning (SRL) being examined in numerous educational settings and being proven to be effective in facilitating learning processes, few empirical studies have been conducted in the context of second language learning, specifically amongst HALs (Laine, 2010; Weinberg, 2011). Based on a large body of research on HALs, these individuals exhibit traits of self-regulation (Risemberg & Zimmerman, 1992) and these skills could be stretched further through self-regulatory classroom strategies.

16. Beyond imagining: A case study in building comprehensive gifted services that embrace diversity

Dina Brulles
Paradise Valley Unified School District
United States

Negligible funding requires that schools integrate the needs of diverse learners into every aspect and initiative of school. Learn how one district enfranchised underrepresented populations by incorporating a continuum of diversified gifted services (all without state funding). The presenter provides a roadmap for duplicating her efforts by answering the questions: How can schools: 1) Make your gifted population reflect the school's demographics? 2) Provide teacher training in understanding affective and academic needs of diverse gifted students? 3) Monitor how various subpopulations make academic progress? 4) Ensure teachers have the training necessary to differentiate instruction, accelerate curriculum, and provide enrichment opportunities?

17. Design-based research practices for the implementation of gifted education provisions in Australian schools

Danielle Cioffi
Cedar College
Australia

Australian education does not have a strong focus on gifted education. There are few token policies, and little is mandated. This poster will demonstrate the research process of a South Australian teacher, aiming to implement a Gifted Education program in their school context. This project was started to ensure that the school context, needs, and community are catered to effectively in the planning for a gifted program. This project will demonstrate the design-based research methodology used to discover the needs of the students in their community, the research gathered from this process, and "where to next".

18. Developing creative and critical problem solving skills in lower primary classrooms: a structured approach

Nicola Desoe
Future Problem Solving Program Australia
Australia

In lower primary classrooms, there is a need for a well-developed, structured sequence of lessons that 'ignite the spark' of young bright minds. Equipping our students with the tools to be adaptable in our fast, changing world is a challenge for educators globally. The sequence of learning experiences in the Primary Programs option offered by the non-profit Future Problem Solving Program in Australia provides teachers with a sequentially developed structure to

achieve this goal. Applying the FPS 6-step problem solving process to a broad range of genres and scenarios, develops students' thinking skills, and ultimately, their Adaptability Quotient.

19. Enabling cultures for acceleration: Gifted girls in single-sex secondary schools in New Zealand

Margaret Crawford
New Zealand

Research has demonstrated that there are barriers to the implementation of academic acceleration as an educational intervention and that gifted girls have special needs. The study focused on acceleration and its effectiveness and provisions provided for gifted girls. Perceptions of teachers, parents or caregivers, and students were sought from three case study schools, different in type, socioeconomic decile, and size. Research instruments included online surveys, focus group, and individual interviews. Effectiveness of provision was attributed to the school's cultures of learning, excellence and challenge, and the culture of care and well-being. Flexibility, consultation and student choice were key factors.

20. Gifted education in Norway, from teachers' perspectives

Astrid Lenvik
University of Bergen
Norway
Lise Øen Jones*
Elisabeth Hesjedal*

This research project is focused on how teachers in Norwegian primary and secondary schools view and accommodate gifted students. The following research questions are explored in this study: How do Norwegian teachers conceptualise and view giftedness? How are gifted students accommodated in Norwegian schools? How many teacher-identified gifted students are there in Norwegian schools? The study uses quantitative survey methods from a representative part of Norwegian elementary and secondary teachers. Gifted education is new in Norway and there is interest in what knowledge teachers have, teachers' concepts of giftedness, and how they view accommodation for gifted students.

21. How far can multiculturalism advance the learning of social studies for the gifted in Singapore?

See Ping Loh
Singapore Sports School
Singapore

A disturbing study found that many students in Singapore had uncritically adopted the state's values and ideals about citizenship (Ho, 2010).

This finding is troubling and ironic because the curriculum explicitly states that the goal of social studies is to promote independent inquiry and critical thinking. Moreover, the highest level of service-learning is an effective curriculum for gifted students that exposes them to community problems and encourages them to solve those problems creatively (Terry, Bohnenberger, Renzulli, Cramond, & Sisk, 2008). This paper seeks to explore how a multicultural approach towards learning social studies among gifted students can achieve such goals.

22. Impactful service: Authentic professorship in the gifted education community

Joyce Miller
Texas A&M University-Commerce
United States

"Impactful Service: Authentic Professorship," illustrates how college professors serve the gifted community and impact the academic goals of students in Kindergarten through high school. How can college professors with experience and academic preparation in education utilise academic skills and expertise to impact the daily lives of the gifted community in a positive way? This presentation will describe the activities of "Authentic Professorship" that addresses the needs of the gifted community beyond the university, thereby creating "Impactful Service" while maintaining the professorial roles of Teaching, Research, and Service as defined by the university.

23. Improve students' mathematics-learning ability

Ying Huang
Beijing No. 8 High School
China

A basic course to enhance students' quality, it will serve as a foundation for further study and research in this discipline. To better teach these young students with a strong thirst for knowledge, they have also arranged varied activities to enrich the class so that research ability can be stressed in the classroom. It is an improvement of class learning to develop their self-study ability and creativity and arouse their desire to learn after class so that they could take the initiative to learn themselves. This presentation aims to talk about how to improve students' mathematics-learning ability through classroom examples.

24. Investigating active learning in a Biology classroom through an inquiry approach for high ability learners

Ai Khim Lim
Raffles Girls' School (Secondary)
Singapore
Tien Lee*

This presentation discusses the use of inquiry-based learning (IBL) as a learner-centred approach to cultivate active thinking and learning in a scientific classroom for high-ability learners. Improvements in students' interests, scientific synthesis, and processing skills, have been reported in undergraduate students in the areas of science and engineering. However, learning gains in these areas following the implementation of IBL remain poorly understood in learners younger than 18. In this study, IBL is implemented in biology classrooms comprised of gifted female learners aged 15-16 years old. Students' learning outcomes including knowledge and skills are measured quantitatively using diagnostics tests.

25. Multi-genre projects: Rigor and creativity in the classroom

Susanna Hapgood & Martha Champa
University of Toledo
United States

Have you ever wondered how to enhance the instruction of your content in such a way that students are challenged, engaged, enthusiastic, and proud to share their learning? Multi-genre projects allow learners to expand their knowledge and communicate to others in a variety of genres. Over the last 10 years, the presenters have incorporated multi-genre projects into their instruction to deepen learning, encourage

independence, and allow the creativity and voice of learners to shine. This poster presentation will highlight related research, offer suggestions for guidelines for engaging learners in multi-genre projects, and showcase examples from kindergartners through graduate students.

26. The application of modelling in biology teaching

Lirong Zhang
Beijing No. 8 High School
China

The model is used to display complex objects or process performance means, while model building method based on research model to reveal the original form, character and essence of the scientific method. The model can help students understand the complexity of life activities, and learn to study the biology of the scientific method. This paper expounds the classification of biology model, from the perspective of education theory and the characteristics of students, and expounds the biological significance of model teaching of junior high school.

27. The effect of frustration caused by difficult tasks on gifted learners' achievements.

Chelsea O'Brien
Universiteit van Amsterdam
Netherlands

Gifted pupils frequently underachieve. Not having learnt how to solve problems due to a lack of confrontation with challenges is a possible reason for underachieving. This research studies how pupils' mindsets affect their success in overcoming challenging hurdles and completing complex tasks, such as translating Latin texts. The focus of the study lies on how well pupils achieve after being faced with difficulties while translating Latin sentences into Dutch. The results of these analyses will hopefully give insights into how to determine which pupils are likely to be negatively or positively affected by a frustrating task.

Affiliated Organisations

Organisations which desire to become affiliated with the World Council must be non-profit and have written bylaws (or if no bylaws exist an official statement outlining the organisation's purpose, goals, and philosophy) that are in accordance with those of the World Council.

Membership exists in one of two categories:

- Affiliated Federations that are organisations of three or more countries and have officers and written bylaws (or if no bylaws exist an official statement outlining the federation's purpose, goals, and philosophy) that govern the federation, or
- Affiliated Organisations that are local, state, regional, or national and have officers and written bylaws (or if no bylaws exist an official statement outlining the organisation's purpose, goals, and philosophy) that govern the organisation.

Currently, the following federations and organisations are Affiliates of the World Council:

Affiliated Federations

- The African Federation for the Gifted and Talented (AFGT)
- Asia-Pacific Federation on Giftedness
- ECHA (European Council for High Ability)
- Eurotalent
- Ibero-American Federation

Affiliated Organisations

- Al Alfi Foundation, Egypt
- Association of Hungarian Talent Support Organizations
- Association of Talent and Giftedness (STaN – Czech Republic)
- Associazione Italiana Farfalle (AIF), Italy
- Australian Association for the Education of the Gifted
- The Carol Martin Gatton Academy of Mathematics and Science in Kentucky
- The Center for Gifted Studies at Western Kentucky University
- Centro de Atención al Talento (CEDAT), Mexico
- Deutsche Gesellschaft für das hochbegabte Kind e.V. (DGhK)
- Foundation of International Education Poland
- Future Problem Solving Program International, Inc.
- Gifted Children Denmark
- Gifted Education Resource Institute (GERI), Purdue University
- The Hong Kong Academy for Gifted Education
- National Association for Able Children in Education (NACE – UK)
- National Beta Club
- Nokhbegan International Talent & Creativity Development Institution
- Potential Plus UK
- Russian Union for High Ability and Talent Nurture
- Stepnet Onlus (Supporting Network for the Development of Talent, Emotions and Potential) (Italy)
- The Thinking Center (Turkey)
- Turkish Gifted and Talented Education, Culture, Health, Superior Foundation and College (TÜZYEKSAV)

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Gifted Families Support Group Inc.

WHO WE ARE Gifted Families Support Group Incorporated is a not for profit association with the vision to support gifted children, their families, and their educators. GFSG Inc. is affiliated with the Australian Association for the Education of Gifted and Talented Children (AAEGT) and represents NSW on the national board.

WHAT WE DO

GFSG Inc. committee members draw on their personal experiences raising gifted children, coupled with invaluable advice from experts in the gifted field, to provide families and educators with a range of opportunities for support. In particular, GFSG Inc. aims to provide opportunities for gifted children to connect with 'like minds', to provide families the opportunity to openly discuss their own experiences without judgement, and to promote access for educators to quality professional development regarding the education of both gifted and GLD children. GFSG Inc. also supports the AAEGT in advocating for gifted individuals at a national level.

WHAT WE OFFER

- Sub-branches expanding through regional and rural NSW
- GEM (Games for Enquiring Minds) K-8 Games night
- GEM excursions and special events.
- Mum's Dinners and Dad's Night Out
- Picnics and holiday activities for the family.
- Little GEMs playgroup activities.
- Seminars for parents and educators, covering a variety of topics and presented by experts in the field.
- Quarterly eNewsletter - *Thought Space*
- Library for members
- Members' private Facebook group.
- Our web site with event information, kids corner, useful links and much more.

Non-members are welcome to attend events, though membership discounts do apply. GFSG Inc. welcomes feedback and suggestions for events / excursion venues / seminar topics to be considered for inclusion in the annual program.

WHO CAN JOIN?

Membership application is open to anyone who shares a commitment to supporting the needs of gifted children. Please view our website for further information regarding membership options.

For further information, or to be added to the mailing list, please feel free to contact GFSG via email info@gfsg.org.au.

www.gfsg.org.au

The Australian Association for the Education of the Gifted and Talented (AAEGT)

was founded in 1985 with a vision for supporting the endeavours of Australian teachers and parents in the field of gifted education.



Through collaboration with national educational bodies, publication of the *Australasian Journal of Gifted Education*, establishment and support of Gifted Awareness Week-Australia, and the biannual National Gifted Conference, the AAEGT seeks to fulfil its objectives:

- To ensure equitable and socially just educational provisions for the gifted and talented.
- To focus attention on the gifted and talented and their valuable potential contributions to the welfare of Australia.
- To stimulate and encourage further research into the nature of giftedness, talents, creativity and the education and development of the gifted and talented; and to disseminate the results of such research.
- To assemble, for an exchange of ideas and experiences, people from throughout Australia and beyond, interested in the gifted and talented.
- To persuade government to recognise the gifted and talented as

individuals requiring special attention in formal educational programs.

- To establish means for a continuing Australia-wide exchange of ideas, experiences, teaching and teacher-training techniques in respect of the gifted and talented.
- To create a climate of acceptance of the gifted and talented as a valuable asset within Australia. Such individuals come from a variety of economic, social, racial and religious backgrounds and may show giftedness and or talent in intellectual, social, spiritual, aesthetic, physical or emotional spheres of human activity. They may have sensory, physical, emotional, behavioural and learning disabilities.
- To initiate, conduct and foster activities designed to bring together the gifted and talented of Australia.

Financial members of affiliated state and territory associations become members of the AAEGT. Contact your local state/territory association for further details.

www.aaegt.net.au



GERRIC In-Services

Mini-COGE (Mini Certificate of Gifted Education)

UNSW School of Education offers a suite of comprehensive accredited professional learning courses, single and multi-day workshops and symposiums for qualified teachers. Our courses are held on-campus, with the option of being delivered at your school, and are led by experts in their various discipline areas.

Mini-COGE

A 16-hour in-service course delivered over two or more days for up to 25 staff members.

GERRIC's Mini Certificate of Gifted Education (Mini-COGE) provides substantial professional development to teachers and school leaders. The Mini-COGE can be delivered to individual schools or to clusters of schools in metropolitan or regional areas.

The Mini-COGE offers teachers a thorough overview of definitions and models of giftedness and talent, identification of gifted children, and practical guidelines on how to plan differentiated units of work for classroom delivery.

Teachers will have the opportunity to review processes currently in place in their school and

classroom plans with a specialist academic in gifted education.

The flexible delivery and interactive nature of the workshop makes it a very popular option for school Professional Development days.

For small groups (less than 25) or individual teachers, the Mini-COGE held on campus at UNSW Sydney throughout the year may be a more suitable option. Be sure to book in advance as this course fills quickly. Bookings can be made online.

What teachers are saying about the Mini-COGE:

"The session on differentiation was excellent and provided many relevant examples that could be transferred into any classroom setting. I feel really empowered to go back and share this with my KLA." – Classroom Teacher

"...this course has inspired, motivated and better equipped me to program really well and genuinely be able to cater to all needs, especially G&T students." – Anna, Classroom Teacher at Ashbury Public School

"The activities and materials were relevant and highly-adaptable to any school context." – Helen, Classroom Teacher at Lambton High School



Teachers or families of Gifted and Talented students may be interested in one of our other workshops and programs:

- Our **Parent Courses** prove invaluable resources for parents and caregivers of gifted children, available as a two-day introduction or one-day specialised course. A **Karen Rogers Masterclass** will be held on 19 July, 2017.
- Our **GERRIC Student Programs**, run during the school holidays, offer a program specifically designed to engage and challenge gifted children in Years 3-10. The next program will be held September 26–28, 2017. Bookings will open end of June.

Postgraduate Courses in Gifted Education

ABOUT THE PROGRAMS

The UNSW School of Education offers a Graduate Certificate and Master in Education (Gifted Education). The programs are designed for teachers who would like to specialise in the field of gifted education.

The programs focus on contemporary issues involving gifted and talented students as well as the development of curricula and teaching strategies to meet their learning needs.

PROGRAM STRUCTURE

Both the Graduate Certificate and Master of Education (Gifted Education) can be completed in a range of flexible modes, including through online or blended learning, school holiday intensive courses and face-to-face evening classes.

Students have the option to study the Graduate Certificate and Master in Education (Gifted Education) fully online (via specific courses).

Telephone: 02 9385 1977

Email: education@unsw.edu.au



GERRIC STUDENT PROGRAMS

26th-28th September 2017

GERRIC offers a range of school-holiday programs for gifted and talented students (generally students who are capable of performing in the top 10% of their age-peers) for children from years 3-10. GERRIC holiday programs will open students' minds to abilities they may have not suspected they possessed, and opportunities to use those abilities to the fullest. They'll meet other kids who share your interests and inspiring teachers who love working with gifted students.



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GATEWAYS

G.A.T.EWAYS offers programs designed to address the particular needs of gifted and talented primary-aged children. We provide hands-on workshops through host schools, that extend and challenge highly-able children beyond the regular school curriculum and allow them to work with like-minded peers.

G.A.T.E.WAYS has been designing programs in a range of disciplines since 1994, and is currently delivering them to gifted and talented children in Melbourne, Sydney, Canberra, Brisbane and the Gold Coast.

Teacher-nominated and parent-enrolled programs available



For further information visit our website at www.gateways.edu.au
Contact us: Melbourne Head Office (03) 9894 2116 or Sydney Office (02) 9940 0303

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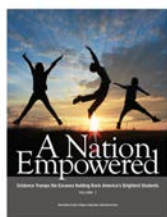
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Empower Your Gifted Program in 2 Steps

Opportunities from the Belin-Blank Center

1. Read *A Nation Empowered* as a printed book or on the Amazon Kindle Store.



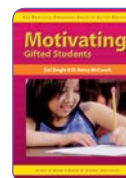
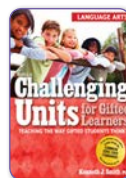
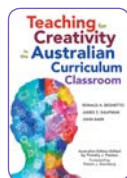
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World Council
for Gifted and
Talented Children

The World Council for Gifted and Talented Children, Inc. (WCGTC) is a worldwide non-profit organization that provides advocacy and support for gifted children. The WCGTC is a diverse organization networking the globe with an active membership of educators, scholars, researchers, parents, and others interested in the development and education of gifted and talented children of all ages.

Membership Includes

- Archives of *World Gifted* newsletter
- Archives of *Gifted and Talented International*, the official journal of the WCGTC
- Archives of *Roeper Review* and *Creativity Research Journal*
- Reduced rates for World Conference registrations

To learn more and join, visit www.world-gifted.org/join.



Gifted and Talented International (GTI)

Gifted and Talented International (GTI) is an international, refereed journal publishing articles that significantly contribute to our understanding and promotion of giftedness, talent, and creativity in children, adolescents, and adults. Our aim is for *GTI* to publish original research, theoretical studies, systematic literature review papers or accounts of practice. Integrative literature reviews and theoretical pieces that appreciate empirical work are welcome.

GTI will be published twice a year with our Peer Review Policy using a double-blind, anonymous peer review process based on initial editor screening. Manuscripts can be submitted by visiting <https://mc.manuscriptcentral.com/GTI>.

Gifted and Talented International has recently been promoted to researchers at the European Council for High Ability (ECHA) conference, the Australian Association for the Education of Gifted and Talented conference (AAEGT), the American Education Research Association (AERA) conference, the National Association for Gifted Children (USA) conference, among others. We are keen to have cutting-edge research published in our journal!

In addition to members receiving electronic access to the archives of *Gifted and Talented International*, our partnership with Taylor & Francis now provides members electronic access to *Roeper Review* and *Creativity Research Journal*. To access these archives and read submission details for *GTI*, please visit world-gifted.org/gti.