23rd Biennial World Conference

A World of Possibilities: Gifts, Talents, & Potential

July 24–28, 2019 Nashville, Tennessee, USA





World Council for Gifted and Talented Children



23rd Biennial World Conference

A World of Possibilities: Gifts, Talents, & Potential

July 24–28, 2019 Nashville, Tennessee, USA



Contents

- 3 President's Letter
- 4 Executive Administrator's Letter
- 5 Mayor's Letter
- Executive Committee
- 7 Awards & Scholarships
- 8 Schedule
- 12 Campus Map
- Building Floorplans
- General Information
- WCGTC History
- 19 Program at a Glance
- Preconference Workshops
- Keynote Speakers
- Parallel Session Abstracts
- Poster Abstracts
- Symposium Abstracts
- Sponsors
- Exhibitors
- Affiliates
- Delegates
- Friends List (2017-2019)



World Council for Gifted and Talented Children

Worldwide Advocacy for Our Gifted Children

July 10, 2019

Dear WCGTC Conference Attendees,

Welcome to the 23rd Biennial World Conference in Nashville, TN! I am so happy that you have come to enjoy time with others who share your interests in addressing the needs (often created by strengths) of children and young people with gifts and talents.

As we work to engage gifted students in learning at high levels, we come together to share research and strategies that enhance the well-being of gifted individuals. The World Conference provides the venue for presentations and discussions that allow each of us to update what we know about giftedness, creativity, and high potential.

The World Conference allows each of us to make new connections as well as to strengthen friendships both new and long term. Networking will occur in sessions but also at tea times and after conference hours. It is a time to reach out to others from many countries to discover what you share in common and to learn about new ways to address the social and emotional and the cognitive needs of giftedness individuals.

I remember well the first World Conference I attended in Salt Lake City in 1987. I wish you a wonderful time at this conference, filled with learning, networking, and fun! This conference allows us to explore "A World of Possibilities: Gifts, Talents, and Potential"!

The World Council for Gifted and Talented Children is your organization. Please let me know if there are ways that this experience can be enhanced for you!

Sincerely,

Julia Link Roberts

Jusia Link Roberts

President



World Council for Gifted and Talented Children

Worldwide Advocacy for Our Gifted Children

July 10, 2019

Dear Participants of the 23rd Biennial WCGTC World Conference,

We are very pleased to welcome you to Nashville, Tennessee for the 23rd Biennial World Conference of the World Conference for Gifted and Talented Children. Thank you for the strong support shown by your attendance. You represent more than 750 participants from 47 countries!

The Executive Committee has worked diligently to ensure that the conference provides you with valuable information and networking opportunities. Staff at The Center for Gifted Studies and Western Kentucky University as well as many volunteers have also been invaluable in the planning stages. They have designed printed and electronic materials, edited abstracts, collated materials for your packet, volunteered their time helping onsite, among many other important tasks.

We have an outstanding lineup of parallel sessions, posters, and symposia as well as keynote speakers and preconference workshops. Together, more than 450 individuals will provide engaging presentations covering many different topics.

We hope that you will share your conference experiences on social media. Make sure to tag @WCGTC on Facebook and Twitter and use #WCGTC19. If you have any questions while at the conference, please ask one of our volunteers or staff members. You can also email headquarters@world-gifted.org. Welcome to Nashville and the 2019 World Conference!

Sincerely,

Tyler Clark

Executive Administrator

Type Clark

METROPOLITAN GOVERNMENT OF NASHVILLE AND DAVIDSON COUNTY

DAVID BRILEY MAYOR OFFICE OF THE MAYOR
METROPOLITAN COURTHOUSE
NASHVILLE, TENNESSEE 37201
PHONE: (615) 862-6000
EMAIL: mayor@nashville.gov

July 24, 2019

Greetings!

As Mayor of Nashville, it is an honor and pleasure for me to welcome attendees to the World Council for Gifted and Talented Children World Conference. I am pleased and delighted that Nashville was chosen as this year's host city. Enjoy yourself as you convene at the beautiful Vanderbilt University for a time of informative programming, networking, fellowship, relaxation and fun.

During your visit, I hope that you will have the opportunity to experience and appreciate the many sights, sounds and tastes that Nashville has to offer in and around Music City. No matter where you go or what you do, I am sure that your stay will be enjoyable because of the warm and welcoming atmosphere created by the Nashvillians who have given our city a world-renowned reputation for hospitality.

I am impressed by the World Council for Gifted and Talented Children and the work you all do each day to empower students to live up to their fullest potential. Your presence at this conference signifies your passion for education and opportunity – two things that not only make an individual's life better, but truly transform communities holistically. I encourage you to use both your individual talents and collective influence to continue being impactful in the lives of young people. I am inspired by your efforts and look forward to what you all will accomplish in the years ahead.

On behalf of the Metropolitan Government, best wishes as you embark on a productive conference. May your time together energize you to reach new heights in pursuit of your meaningful and valuable work.

Sincerely,

David Briley

Mayor



Executive Committee



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



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



Tracy Riley
Secretary
Associate Professor and Dean,
Research
Massey University
Palmerston North, New Zealand



Denise Fleith *Treasurer*Professor, Institute of Psychology
University of Brasilia
Brasilia, Brazil



Ümit Davasligil
Member
Professor, Educational Psychology,
Gifted Education
Maltepe University
Istanbul, Turkey



Sue Prior
Member
Head of Individual Needs
Harrow International School
Hong Kong



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, USA

Awards & Scholarships

Awards

In conjunction with the WCGTC biennial conference, the WCGTC Executive Committee 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 and Awards Committee selects 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 2019 World Conference in Nashville, including:

To Be Announced



Scholarships

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 2019 recipients are:

Madlena Arakelyan (Yerevan State University) Barbara Lazarou (University of South Florida) Miriam Ramzy (University of Calgary)

Schedule

23rd Biennial WCGTC World Conference 2019 (This schedule is subject to change.)

Each parellel session will last 25 minutes, including questions. Each symposium will last 75 minutes including questions. For a complete list of abstracts, presenters, and additional conference details, please visit www.worldgifted2019.com.





Wednesday July 24, 2019	19 Registration 1pm - 4pm	m Exhibit Hall open 2:30pm - 4pm	l mdt					
4pm - 4:45pm Opening C	Opening Ceremony SLC Commodore Ballroom	-						
4:45pm - 5:45pm Keynote	Keynote Commodore Ballroom Lannie Kanevsky — Personalizing Learning: Power, Preparation, & Poss	/sky — Personalizing Learning: Powe	r, Preparation, & Possibilities					
6pm - 8pm Welcome R	Welcome Reception ESB Lobby							
Thursday July 25, 2019	Conference registratio	Conference registration 7am - 12pm Exhibit Hall open 8am - 4pm	en 8am - 4pm l					
8am - 9am Keynote Co	Commodore Ballroom Sheyla Blumen — Culture and High Performance: Inclusive or Exclusive	n — Culture and High Performance: I	nclusive or Exclusive Practices?					
9:15am - 10:30am STEAM	Programming Alimni Hall 201 Classesom	Misc	Social/Emotional	Advocacy Sarph 112	Creativity Creativity	Identification	G&T SICCommodoro Ballroom	SIC Monting Dooms 19.3
2.1.1 Project Period Table: A Creative, Successful use of Type III Delaine Alma, Amaya, Turk Habib Liblen, Einck Reyes, Eryx Elizarrans, Octavio Lopez, lan Toto, Ricardo Valdez. 2.1.2 Does the Lebanese Education Valdez Rem Hinderthe Naya Antoun, Raya Younes, Sara Saloum Liblen, Shape Up. Developing Spatial Abilities for STEM	2.1. Practical ideas for improving frictal Thinking and Nathan Lew Tazz Integrating Scientific Endichment with Science Dom Meerbaum-Salant, Bruria Haberman, Sagna Prolleck 2.2.3 Using Infogran Proleck Develop Visual Literacy Shirley Farrell	2.3.1 Polyhedron Model of Wisdom Wisdom Waldom Sareh Karani, Mehdi Ghahremani, Marda Genty Caran Giver. Possibilities Hrough Philanthy Chayton-Code 2.3.3 The Fun Toy of Education: A Model for Every Yeacher	2.4.1 No Children's Play: Early Childhood Seval Harassment Apelet Gildel Seval Harassment Apelet Gildel Seval Harassment Apelet Gildel Seval Harassment and Minority Gifted Children Minority Gifted Children 2.4.3 Social-Enotional Issues of Gifted Students and Bullying Prevention Requell Lutter-back Glamini, Christina Maria Delou*	2.5.1Supporting a Gifted Global Society. Advocating Cleminy St. Clair, Kali Fedor 2.2.5 Establishing and Paclitating a A National Gifted Awareness. Melinda Gindy, Deb Walker Feducation: Strategy Catherine Blando Maureen Marron, Brett Monnard	2.6.1 Learning for a New Work-innovative Design-Build inrichment for Creatively Gifted in All Leamers and All Leamers and Shuster-Tucker, Sylvia inm, Ryan Gerber, John Stipek, Maureen Goodwin	in Talent from the figure in t	52.8.1 Criteria and Procedures for Accellation of Assessments of Giftedness and Talent C. June Maker, Ketty Sarouphim- McGIII, Julia Link Roberts, Diana Hill	52.9.1 Empowering Ze Learners Through the Visual and Performing Arts Performing Arts Plaine M.Cardel Many Elizabeth Henton, Karene Edwards, Jana Mayer, Christi Sexton
10:30am - 11am Morning Tea (Student Life Center)	tudent Life Center)			_				_
11am - 11:25am Social/Emotional	Guidance	G&T	STEAM	G&T	G&T	Social/Emotional	G&T	G&T
Alumni Hall 100 Lounge	Alumni Hall 201 Classroom	Alumni Hall 202 Memorial	Alumni Hall 206 Reading Room	Sarratt 112	Sarratt 197 Cinema	Sarratt 216/220	SLC Commodore Ballroom	SLC Meeting Rooms 1 & 2
2.1.4 Time Attitude Profile Diffeences in Personality, Perfectionism, Coping Frank Worrell, James Andretta, Mojca Juriševič	2.2.4 Introducing Swift: The Smith/ Westbrook Intellectual Fiona Smith, Dominic Westbrook	2.3.4 Public Images of Gifted Programs in China: Analysis of Chinese Shengpeng Huang, Yan Kong*	2.4.4 STEM Talent Support How To Create Innovative Young Dieter Hausamann, Tobias Schüttler	2.5.4 Uncovering Gifted: A Profile of an Underperformer Carolyn Prince	2.64 Mental Speed Changes As A Consequence of Gifted Andrew Almazan Anaya	2.7.4 Am I Different? Exploring Gifted Identity Formation Through A Lens of Difference Kimberley Perry	2.8.4 An Exploration of Gifted Adolescent Motivation In Vicki Phelps	2.9.4 The Major Characteristics and Trends in Doctoral Dissertation Hyeseong Lee, Marcia Gentry
11:30am - 1pm Lunch (Rand Di	11:30am - 1pm Lunch (Rand Dining Center) Group A 11:30am C	Group B 11:50am Group C 12:10pm	u					
1pm - 2:40pm Educator Beliefs	Teacher Preparation	Educator Beliefs	Leadership	Identification	Misc	Diversity	Diversity	Creativity
Į₹	Alumni Hall 201 Classroom	Alumni Hall 202 Memorial	Alumni Hall 206 Reading Room	Sarratt 112	Sarratt 197 Cinema	Sarratt 216/220	SLC Commodore Ballroom	SLC Meeting Rooms 1 & 2
2.1.5 Using Measures of implicit Corrections in Giffed Formerstions in Giffed Form Miller in Giffed In North Italy and in The Metherlands Longoven, Lon	2.2.5 Current Practice and Future Propression of Giffed Political American Market Political American Market 2.2.6 Halming Process of Giffed Andrew Almazan Anaya, Dafine Andrew Almazan Anaya, Dafine 2.2.8 Relinagination of Giffed and Lalented Services Lalented Services	2.3.5 Infusing Gifted Education Debra Toxical Mangare Courses in Debra Toxical Mangare Sources in Debra Toxical Mangare Sources in Denominational Schools Denominational Schools Denominational Schools Denominational Schools Denominational Schools Benominational Schools Benominational Schools Benominational Schools Benominational Schools Schools Schools Toxical Courticulum Taylor Thompson Deb Walker Deb Walker	2.4.5 Principles of Fearless deadership of Jeanless deadership of Searless of	2.55 Activowledging Nurturing, and Celebrating Gifferness for John Charading Gifferness for John Charading Gifferness for John Charading Gifferness for Assessment From A German Madeleire Majunke D. 2.5 Am Arrithoressan Approach To The Identification and 2.58 How An Australian P. 2.58 How An Australian P. 2.59 How And Australian P. Charadinicesse Embedded Giffed P. Redsgogy	2.6.5 Teaching For Talent Engage, and Educate Innovators Engage, and Educate Innovators S.2.6.6 Asynchrony Revealed: The Couldn'bd Group Doby Hishell Michie Rane, Barbala Mitchell Michie Rane, Bribala Mitchell Michie Rane, Bribala Mitchell Michie Rane, Bribala Mitchell Walden, Shelagil A. Gallagher	27.5 Educator Perceptions of ficial and ibanted inglish Michelle lymin Eduty and Access For American Indian's Ansida	2.8.5 Recognizing and Serving Diversity in Route Gifted Diversity in Route Gifted Diversity in Route and Education Name Helensel Hesbol Name Hesbol Scussion: Policies and Parattee That Promote Equity in Gifted Education Asson Españabany, Wendy A. Soha Españabany, Wendy A. Soha Españabany, Wendy A. Kronborg, Jonathan Plucker	2.9.5 Seeing the World of Seeing the World of Laurie Cord. Creative Problem Laurie Cord. Problem Solvers Today - Immostive Leaders Narria Delcourt, April Dennis, Sandy Horron
2:40pm - 3:15pm Afternoon Tea (Student Life Center)	a (Student Life Center)							
3:15pm - 3:40pm School Alternatives	es Guidance	G&T	STEAM	Programming	Programming	Diversity	Diversity	Advocacy
Alumni Hall 100 Lounge	Alumni Hall 201 Classroom	Alumni Hall 202 Memorial	Alumni Hall 206 Reading Room	Sarratt 112	Sarratt 197 Cinema	Sarratt 216/220	SLC Commodore Ballroom	SLC Meeting Rooms 1 & 2
2.1.9 Effect of Using a Science Enrichment Program on High- Achieving Student'S Science Ahmed Mohamed	2.2.9 Female Talent Development in the 1st Gerutury. A Bazilian Online Courseling Program for Renata Muniz, Denise Fleth	2.3.9 Was Korczak Really Ahead of His Time? Shoshana Rosemarin	2.4.9 Reach for the Stars Denise Zigler	25.9 Advocating for Gifted Programming in a Low Socio-Economic School: Can One Carolyn Prince	2.6.9 Catering for Gifted Learners In Lebanon: The Lase of Lwis-City International School Mira Alameddine, Nather Simhari	2.7.9 Best Practices to Facilitate High Ability LGBTQ+ Student Success Jo Tuite	2.8.9 ze Literature: An International Cortent Analysis Claire Hughes, Debra Troxclair	2.9.9 Why Do We Not Have Gifted Education in Schools? Maria Leonor Conejeros-Solar, Ratis Sandvak Padiguez*, Maria Paz Gómez-Arizaga, Schools Paz Gómez-Arizaga, Schools Catalán Henríquez*, Claudia Nuñez Chaufieur**
3:40pm - 4:10pm Poster Preser	3:40pm - 4:10pm Poster Presentations SLC Commodore Ballroom			-	-		_	-
4:10pm - 5:30pm Keynote	Commodore Ballroom Pa	Commodore Ballroom Paula Olszewski-Kubilius, Rena Subotnik, Frank Worrell — The Psychology of High Performance	k, Frank Worrell — The Psychology o	f High Performance				

Friday July 26, 2019	Conference registration 7:30	Conference registration 7:30am - 12pm Exhibit Hall open 8am - 4pm	am - 4pm l					
8am - 9:40am Diversity	Programming	Acceleration	Social/Emotional	Advocacy	Social/Emotional	Creativity	G&T	Identification
Alumni Hall 100 Lounge	Alumni Hall 201 Classroom	Alumni Hall 202 Memorial	Alumni Hall 206 Reading Room	Rand 308	Sarratt 112		Sarratt 216/220	Sarratt 363
La.1."We can Dol. 1."Ow. Ended Learning Strategies For 2c. Jackat Jones Roberson Jackat John John John John John John John John	3.2.1 An international Cooperative Problem Solving Based Ching-Chih Kuo, Chia Chao Li Ching-Chih Kuo, Chia Chao Li S.2.2 Fifests of Pel On Gitted Education and Best Practices Mucahi Karaba Sest Practices 3.2.3 Transdisciplinary Made Debbie Toxabis When Gitted Education Debbie Toxabis Chin-Wen Lee*, Sheom Mark** A Progect Peturus: The Power of Team Reaching and Tommie Chen, Pel Li Liew*	Interventions for Glited Interventions For Glited 3.2.2 Teachers Vews On Exa Rahil Exa Rahil Standents Curriculum Students Carriculum Students S	for the Gifted Classroom for the Gifted Classroom the Hahn, Diane Witt 3.42 Gifted Students and the Exploration of Affects Jennifer Bartee Emotional Learning of 3.43 Sceffolding the Social Emotional Learning of 3.44 They're Gifted Affects and Markey In Morman, Jessica Curtiss, Alexa Husselbaugh, Stacey Angellio, Jared Scheetz	Students in Federal Delices Chad Philips 3.2. Bibliotherapy in The 3.2. Bibliotherapy in The Bizabeth Ebers-Truesdale Breann Elizabeth Ebers-Truesdale Breann St. St. What Can South Africa Lean The Red Dot On The Malo 3.5. 3. What Can South Africa Lean Annari Maine Mike Miholo 5.5. A Pisa Coid - A Wealth of Policy Kathleen Stone	Earl Bibliotheappy By The Farmotional Skills Through Picture motional Skills Through Picture 300ks. 100ks. Alloy Farmot Alloy Farmotional Skills Through Special Skills Through Specia	Sheldon-A College Course In Stefach College Course In Richard Mehrenberg, Charlton Richard Mehrenberg, Charlton 33.72 Achleving Eminence: What's Kowan's What bedsels in Be. Rena Subortik, Susan Palis, Renata Muniz Pado, Leonie Kronborg, Frank Worrell, Paula Olszewski- Kublius	as I on dentifying As A Gifted Adult. An International Focus of the Annual Study Maggie Brown Maggie Brown Cultures Adapting Tests For Different Atmed Mohamed, C. June Maker, Hala Elhoweris	3.9.1 A Thirty-Year Study On Heartification Procedures Particla Beehner, Scott Perdickson, Did Newer, Lude Mayo-Cepero Mayo
9:40am - 10:10am Morning Tea	Morning Tea (Student Life Center)							
10:10am - 11:25am Programming	Guidance	Social/Emotional	School Alternatives	Creativity	Educator Beliefs	Social/Emotional	2e	Programming
Alumni Hall 100 Lounge	Alumni Hall 201 Classroom	Alumni Hall 202 Memorial	Alumni Hall 206 Reading Room	Rand 308	Sarratt 112	Sarratt 197 Cinema	Sarratt 216/220	Sarratt 363
3.1.5 Inaginarium, A Holistic Approach Toward Nurtuning Bek Duycker Scholl Entrepreneurship & Social Entrepreneurship & Barbara Sword Standard St	32.25 Too Many Possibilities: Multipotentiality as a challenge Tim Stambaugh, Tamna Stambaugh St	33.5 Openness To Experience and Overexcitability: Same Shedaph Galagher Pre Relationship B.3.6 Garaniming The Relationship Between Overexcitabilities Annead Mohamed Mohamed Mohamed Mohamed Mohamed Mohamed Mohamed Servers of Bergyday Tina Harlow, Susan Daniels, Elizabeth Ringlee	3.4.5 From Invisible To Protagonist: Positive Initiatives that 3.4.6 Where No One Waits To 3.4.6 Where No One Waits To Anda Nortes Anda Nortes For Content Versus Molly Isaacs-McLeod, Norma Hafenstein	25. A Adaptation and Application If Thinking Creatively in In Wal Chlang S. 6 Handwinting and Spelling: S. 6 Shandwinting and Spelling: On We Reved To Fact the Midmin Rama? S.7 The Power of Parents in ritering Primary School ngeborg Veldman- de Jonge	Sch neardor of An Inspirational School Paricipals, An Inspirational School Paricipals, Annual Medical Andrews Smith New Orders of School Paricipals of Schoo	S3.7.5 Socratic Inquiry. A S3.4.5 Socratic Inquiry. A Emotional Needs of The Gifted In He Classroom Richad Courtight, Crissy Brown, Laura Courtight	St. Self-Regulated Learning Strategier For Twice. Furistian Fischer, Christiane Friescher Offined and 2e 3.86 U.D. For Gifted and 2e anemers integrating Special Claine Hughes St. Bibliotherapy With Twice- Exceptional Learners: Using Patti Wood	No Sessions
11:30am - 1pm Lunch (Rand Dining Center)	Dining Center) Group A11:30am	Group B 11:50am Group C 12:10pm	md					
-		Social/Emotional	Creativity	Educator Beliefs	Guidance	Social/Emotional	Programming	Programming
Alumni Hall 100 Lounge	Alumni Hall 201 Classroom	Alumni Hall 202 Memorial	Alumni Hall 206 Reading Room	Radin 308	Sarratt 112	Sarratt 197 Cinema	Sarratt 216/220	Sarratt 363
All Main Hall 100 Lounge All Bingportive Strategies For Guiding Auker, multi. All 91 Pin Assessment of Fachers' Attriudes Toward Twice. Pam Peters, D. Besty McCoach Peters, D. J. T.	Alumin #il 201 dassoom 3.2.8 Productive Giftedress of 8 Eminent African American Writers: 10 Maya. Reval Marshal-Henger, Susan Pair Registering Gultural Competence. Reval Marshal-Henger, Susan Pair Researching Gultural Competence. Assistance of the Competence. Assistance Angela Novak. 3.2.10 Art Education, A Tool For Marshall Restators Angela Novak. All Faltering Clearly and Susan	3.8 Survival Mode. Trauma- trauma Hal Zox Memorial undents Processes of Ciffed tudents Abortic 3.9 Giffedness and Trauma dam Laningham Trauma dam Laningham Trauma dam Laningham Trauma 3.10 Assessment of The Gifed Addiena Anskelyan Addressing Suicide in fifted Youth: Educator Response is a van Gemert	Alumin Hall 200 Reading Room 34.8 Ways To Enhance Creative Helps Rehavior Using Torances 34.8 Examples of Best Practice Strong Marchard Swicord Torances 34.0 Examples of Best Practice Strong Marchard Swicord Helps World As A Model Leave World As A Model Leave World As A Model Leave World Strong Stron	and	as & Cancelled State 112 Such as Developing Esential Skills Such As Self-Insight, Self Such As Self-Insight, Self Such As Self-Insight, Self Such As Self-Insight, Self Stenbergon-Fenteman State Occarbing Creative, High- Search For Search Searc	attart 197 Cimens 3.7 8 Social-Emotional Skills Supporting Giffed Development: Keys 70 Keys 70 Morield again Fairker Peters, Emily Morield again Fairker Peters, Emily Morield Findings and Pieter Capition: Albert Ziegler, Zinaida Adelhandt*, Tobias Debaitin*, Barbara Jacob*, Stefan Markus*,	a Marta 16020 and 2000 and 200	San State 333 3.8 Applying Methods For Helping Gifted Students Leam Helping Gifted Students Leam Lilwent State 33.9 in tegrating Art and The Smithstonian Learning Lab in 93.9 to Museum Studies For The Gifted: Making Art More. Delania Almazan Annaya 39.1 in Developing Expertise Py Modelling The Thinking of A Liferary Modelling The Thinking of A Tamra Stambaugh, Emily Monfield
2:40pm - 3:10pm Afternoon Tea (Student Life Center)	(Student Life Center)	-					i	
3:10pm - 4:25pm Programming Alumni Hall 100 Lounge	Alumni Hall 201 Classroom	Talent Development Alumni Hall 202 Memorial	Guidance Alumni Hall 206 Reading Room	Programming Rand 308	Social/Emotional	G&T Sarratt 197 Cinema	Diversity Sarratt 216/220	Sarratt 363
3.1.12 Supporting Gifted Students' Need For Choice and Challenge Amy Grade 3.1.13 Effective Strateges For Increasing Choice and Voice of Gifted Daine Heacox, Wardy Behrens 3.1.14 Lessons Learned About Curriculum For Gifted Through Shelagh Gallagher	3.2.12 Identifying Gifted Langael Learners Langael Learners Marchel Dubois, Robin G 3.1.13 Identifying Diverse Students in Large U.S. Urf Rea Lymer, Dennis Jutas 3.2.14 Validation Study of Hope Scale: Identifying G Hyeseong Lee, Marcia Gel Hyeseong Lee, Marcia Gel Hyeseong Lee, Marcia Gel Andrea Commission of Hyeseong Lee, Marcia Gel Hyeseong Lee, Marcia Gel Hyeseong Lee, Marcia Gel Andrea Gel Hyeseong Lee, Marcia Gel	3.3.12 Individualized Academic Pathways In U.S. and International Schools Anita Churchville 3.3.13 The Construction and Implementation of a School Kar, ut Huang, Chien-Hong Yu 3.3.14 Identifying and Unturing Exceptional Ability In Young Susan Corwith	3.4.12 Helping Anxious Sucherrs Build Confidence and Achievement Sayvia Rimm 3.4.13 Impact of Boredom and Belonging On Feelings of Anxiety. Tim Stambaugh, Tamra Stambaugh, Tamra Stambaugh, Tamra Stambaugh Calengheement: Eleven Steps To Strengthening		36.12 Spirituality and Sex: Our Tiese of Positive Disintegration Joi Lin 36.13 Social and Emotional Gifted Characteristics and Over Norma Hafenstein Staff The Metaphonical Masks of Dabrowskis Susan Nikakis, Carmel Meehan	53.7.12 Neuroscience and Gifted Cleutation: Foundation For Practice Or Application Gap? Pamela Clinkenbeard, Erin Miller, Susan Assouline, Curtis Bradley	53.8.1.2 Gifted LGBTQ Students Avound The World: Needs and Responses Terence Friedrichs, Frons Smith Frans Corten, Susan Jackson, Orla Dunne	3.9.12 Wired From Birth: Technology and The Gifted Adolescent Brain Jillwurman, Melissa Bilash Jillwurman, Melissa Bilash Jills Jisted + 2e - Robotics = True Peers Molly Isbase-Mercod 3.9.14 Lising 3d Printing To Engage Gifted Learners Antonia (Toni) Szymanski, Andrea Paganelli, Janet Tässell
4:35pm - 5pm General Men	General Members Meeting Sarratt 19 Koungto			or and Dramics of Ciffed Education				
_ - E	- SEC COM	i Meinda Webber — Unleasning Indigenous Potential: The		Purpose, Power, and Promise of Gifted Education				
6:15pm - 7pm Delegates Meeting	leeting SLC Commodore Ballroom	e Ballroom						

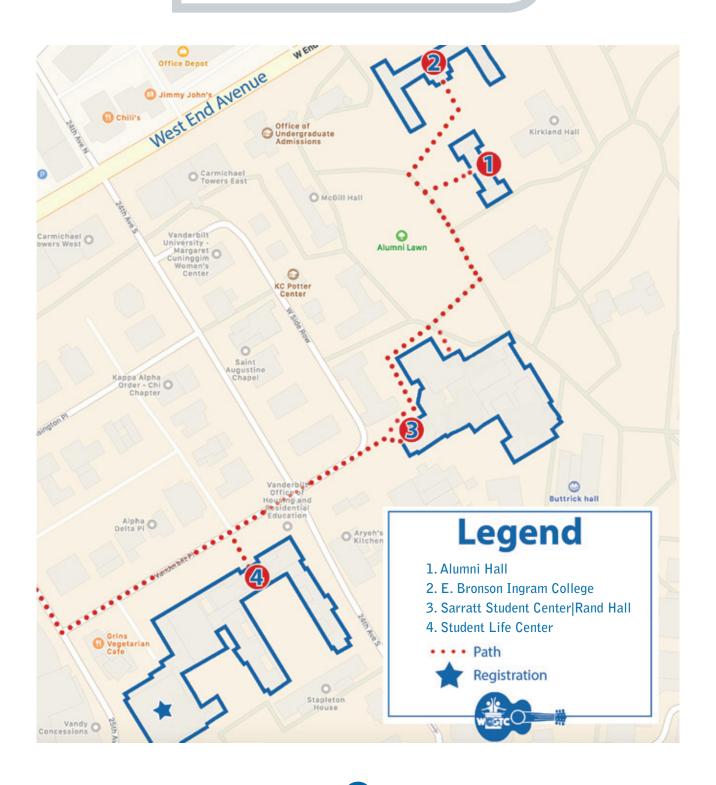
Saturday July 27, 2019	Conference registration 7:3	Conference registration 7:30am - 12pm Exhibit Hall open 8am - 4pm	ı 8am - 4pm l					
8am - 9:40am Creativity	Parenting	2e	School Alternatives	Underachievement	STEAM	Advocacy	Advocacy	Programming
Alumni Hall 100 Lounge	Alumni Hall 201 Classroom	Alumni Hall 202 Memorial	Alumni Hall 206 Reading Room	Sarratt 112	Sarratt 197 Cinema	Sarratt 216/220	SLC Commodore Ballroom	SLC Meeting Rooms 1&2
4.1.1. Creativity and Problem- Based Learning: Tips and Tricks For Anne M. Roberts, Lindsay Ellis Lee 4.1.2. Creativity: A Universal Language For Global Classrooms Patti Drapoau 4.1.3. The Paradox of Creativity and Rigor Sylvia Rimm 4.1.4. Colaborative Songwriting As An Educational Activity For The Cella Whitler	42.1 Great Expectations But Inflam Blassingame, Ashley Sorth Tiffany Blassingame, Ashley Sorth Self-Care Parenting = Extreme P	4.3.1 Ves, Dad. I Can Hear Youl I'm Chossing Digitore You Maynard Ferce, Borja-Ferce Louvellen Borja Ferce Louvellen Borja Ferce 4.3.2 Irritability and The 2e Brain Julie Skolink, Joanna Hasas 4.3.3 Educaring Wire Exceptional Elementary Students: What Amanda Dury A.3.4 Miscilagnosis and Missed Diagnosis of ciffed Individuals Edward Ramend	44.1 Homeschooling The Gifted: Experiences From Australian Main Leonor Conejero-Solar, 44.2 The Gifted Speak About Gifted Identity, Human Worth, and Self Rosemany Keighley Rosemany Keigh	45.1 Engaging The Gifted But	46.1 12: Talent, Intelligence, Andrée Therrien Andrée Therrien S. 2.5 Specialised Schools For Talent Development: Delivening An Advanced Education Program Borowyn Macfarlane, Julia Roberts, Christina Anrisaugh, Nancy Hertzog, Kristina Ayers Paul	47.1 Leveraging Organizational Development in Support Cf Maureen Marron, Susan Wouters A7.2 Connect, Collaborate, and Creat: Growing Giffed Advocacy In The Thadley, Manette Jones 47.3 Growing Researchers 47.3 Growing Researchers Giffed Lesley Henderson, Tracy Riley Lesley Henderson, Tracy Riley	48.1 Issues impacting inclusive feducation for rightly Able Gillan Efixson, Kimberley Able Abradier, Dimkatso Agnes Mohokare. Mohokare esteration, and fanty Acceleration, and fanty Ann Lupkowski-Shoplik, Wendy Behrens, Susan Assouline	49.1 Excape The Classroom Aya Busse, Kate Garis, Cathy Field Say 2.0 (ided Teens and College- Level Research Factors in Their Success Manashri Bhoor Anish Kulkarni, Manashri Bhoor Devesh Bhor
9:40am - 10am Morning Tea (Student Life Center)	ent Life Center)							
10am - 11:15am Social/Emotional	Parenting	Social/Emotional	Diversity	Programming	School Alternatives	2e	STEAM	Grouping
Alumni Hall 100 Lounge	Alumni Hall 201 Classroom	Alumni Hall 202 Memorial	Alumni Hall 206 Reading Room	Sarratt 112	Sarratt 197 Cinema	Sarratt 216/220	SLC Commodore Ballroom	SLC Meeting Rooms 1&2
4.15 The Character Education of Gifted and Talented Children Kuba Kada and Talented Children Kuba Kida Benirbaga A.1.6 Gifted Characteristics and Satisfaction With Life Daniel Shek, Alan Cheurg, Anna Hui, Huimn Liu, Xaoyan Sun 4.1.7 Gifted Student Hopefulness: A Goal Directed Strengths Janette Boazman	4.2.5 An Analysis of Awareness of Perents of Gifted Children In Nüket Ada	4.3.5 Meeting The Affective Needs of Giffed Students While Tama Stambaugh 4.3.6 Supporting Giffed Students' Social-Emotional Needs In A Shrifey Moon Ling Kwok 4.3.7 Influence of A Mentoring Program On Giffed Girls' Social Bek Duyckers	44.5 impact of inclusion On The Incritoning of Students With Nidal Jouni, Anies Alfroub 44.6 Global Competencies For P. 20 Giffed Leaves Reid Comne Pheps, Louise Reid Porfile of Giffed English Language Leamers Hoda Kilani	4.5.5 Excatating The Challenge. Breama Prochnow, Elizabeth Ebers-Truesdale, Joan Jacobs A.5.6 inclividual Education For Gifted Students to Preserve Gifted Students to Preserve 4.5.7 My Gifted Students Nailed Hit What Now! Angela Wakshul, Jo-Ann Shields	S46.5 Student Voices: Attending A 4.7.5 Walk Out of A Meeting Schaebral Stem Hip Smillings Provocative Tearnin School On A University Campus Lynette Breedlove, Julia Roberts, Linda Collins, William Collins Allowed School Sack Ryle Accessing School-Based For Accessing School-Based Giffed Tenence Friedrichs Friedrichs Friedrichs For Accessing School-Based Giffed Tenence Friedrichs Friedrichs Lanner Hoogeveen Agnes B Lanner Hoogeveen Lanner Lanne	4.7.5 Walk Out of A Meeting familing Provocative Teaming Ideas For Linda Collins William Collins Linda Collins William Collins Accessing School-Based School-Based Accessing School-Based Surger-Verleight All Republisher All Collins Burger-Based Surger-Based School-Based Surger-Based Surger	54.8.5 The Role of Mentoring Carlient Development and Excellence Heldrun Stoeger, Rena Subotnik, Barbara Kerr, Laura Lunsford	4.9.5 Fidelity of implementation of the flots Action (Luster Juliana Tay, Nelsen Peerin, Alissa Cress, Marcia Gentry 4.9.6 Total School Cluster Grouping (tscg); A Talent Development Marcia Gentry 4.9.7 Grouping Students To Maximize Gifts, alents, & Potential: What
11:30am - 1pm GTI Editors Meeting Bronson 1005	Bronson 1005			11:30am - 1pm Lunch (Rand Dining	11:30am - 1pm Lunch (Rand Dining Center) Group A 11:30 Group B 11:50 Group C 12:10	50 Group C 12:10		
1pm - 2:40pm 2e	Parenting	Programming	Educator Beliefs	Educator Beliefs	Programming	Depth and Complexity	Diversity	Parenting
Alumni Hall 100 Lounge	Alumni Hall 201 Classroom	Alumni Hall 202 Memorial	Alumni Hall 206 Reading Room	Sarratt 112	Sarratt 197 Cinema	Sarratt 216/220	SLC Commodore Ballroom	SLC Meeting Rooms 1&2
4.18 Cycle For Success: Parenting and Teaching Scholick Explicitly Supersonal Facility of A.19 Finding Our Fractaled Children: Lessons Learned From Fractals Inda Collins, William Collins A.110 Strategies For Supporting Students Wino Are 2e Charlon Wolfgang, Richard Mehrenberg Charlon Wolfgang, Richard A.1.11 The Adaptive Think-Aloud Framework: Is t. Useful in the Maryanne Hanes, Linley Comish, Michelle Bamister-Tyrrell*	Understanding Your High Ability Understanding Your High Ability by Tute and Informational Personal Personal A 2.9 Supporting The Emotional Needs of Gifted Students and Needs of Gifted Students and Needs of Gifted Students and Domswale Wilkins-McCorey, Mary Benth Domswale Wilkins-McCorey, Mary Bunch Bun	as Si Giffed Students Perception of Giffed Programming Andrea Hughs Baild Andrea Hughs Baild 4.3.9 What Heighs Or Hinders The Achievement of Academically Gramen Miller and the Academically As 10 School Engagement In High Ability Students Alica Remos, Karine Verschueren, Alica Remos, Karine Verschueren, Bliede de Fraine Verschueren, Bliede de Fraine As 3.11 Tales From Norwegan Giffed Youngsters Astrid Lenvik, Elisabeth Heisfedal*, Lise Jones*	Ed-48 Giftedness and Gifted Ed-48 Giftedness and Gifted and catton: Teachers' Conception and catton: Teachers' Conception A-4-9 Stakeholders' Views of Gifted Cuctation in The Netherlands Eleonoor van Gerven. Chatthew 19 age 4-4.10 Regular Classroom Teachers' Perception of Gifted Learners Lack Marload Manumo, Mike Misch Mahload manumo, Mike A-4.11 Context Analysis On Attitudes Towards Gifted Mojca Jurisevic, Urska Zerak	45.8 Teachers of The Gifted Learning In Online Courses Through Group 145.9 Professional Learning and 45.9 Professional Learning and Parilles: Working With Teachers Rate Lewis, Angela Novak A. 15.1 Onboarding New Teachers in An All-Gifted Environment: Melissa Blash, Jill Wurman Melissa Blash, Jill Wurman A. 5.1 A Portrayal of frispitational Teachers For Gifted and Highly Claudia Cornejo, Leonie Kronborg	As Girled Student's Perceptions of Challenge It's Hard, It's Fun, and They Want It Beard, It's Fun, and They Want It Beard, It's Fun, and They Want It Beard Stage Sea, 50 on Human Potential: Nuturing Talents, Cultivating Expertise Sandra Kay, Rena Subotnik, Laurie Croft	Transform Mush Inspection. Transform Mush Instruction. Angela Wakshul, Jo-Ann Shields Angela Wakshul, Jo-Ann Shields Angela Wakshul, Jo-Ann Shields Rigorous Cuestioning Using And Shields Angela Wakshul A.7.10 Giffed Learners In The Mainstream School of The Mainstream School Claire Ball, Emma Brice Ander A.7.11 Perceiving The Forest, Not The Trees: Problem-Solving For Emily Mofield, Tamra Stambaugh	As The Implementation of The Young Scholars Model In A Small, Diverse School District Diverse School District S4.89 Unears Deferred Access, early, and Massing Children In Gifted Education Access, the Children Children String and Maria Gentry, Gilman Whiting Maria Gentry, Gilman Whiting Nielsen Pereira, Anne Gray	Posts Rearenting for High Posts Resential Careging Strategies For Nurturing Information of Market Boszman, Trady Imman Michele Kane, Kathy Nilles
	ent Life Center)							
3:30pm - 4:30pm Keynote	SLC Commodore Ballroom		urturing Exceptional Intellectual Taler	Camilla Benbow — Finding and Nurturing Exceptional Intellectual Talent Over 45 Years: The Long-Term Impacts	cts			
4:30pm - 5pm Poster Presentations SLC Commodore Ballroom	ns SLC Commodore Ballroom							

8am - 9:40am	Social/Emotional	Programming	2e	Programming	Identification		School Alternatives	G&T
Alumni Hall 100 Lounge	Alumni Hall 201 Classroom	Alumni Hall 202 Memorial	Alumni Hall 206 Reading Room	Sarratt 112	Sarratt 197 Cinema	Sarratt 216/220	SLC Commodore Ballroom	SLC Meeting Rooms 1&2
5.1.1 Examining Teacher and	2.2.1 Using Mindfulness To Enhance Wellbeing For Gifted Students Montal Szymanski 5.2.2 Mindfulness As I Changemaker For Global Peace: Gifted Children & Youth Involved Dorothy Sisk 2.2.2 Percel Pith: Designing and Delivering A Student Centered Shane Kamsner, Carolyn Giles 5.2.4 Cancelled	5.3.1 Applied Improvisation In The Classroom Christiana Frank Charles and Char	Nati Trauma and The Gifted Brain S.4.2 Pedrox A Wire-Exceptional S.4.2 Pedrox A Wire-Exceptional S.4.3 Pandox of Giftedness and As Pandox of G	15.5.1 Engaging Our Gifted Students Using Authentic Learning Lond Stanley Todd Stanley Productivity in Gifted Education Productivity in Gifted Education Productivity in Gifted Education Programs 23. Meeting The Needs of The Many, Gifted Programming Taking House of Cheri Dimartino, Bonnie Pillaro, Sean Johnson 5.5.4 Shared Journey, Different Strepetickies, Stanpshots From Kathy Harrison, Mark Smith, Amy Homeman, Hayley Lewkowicz	5.6.1 Cleductifying and Predicting caffeed Children's Achievement Trajectories. Effects of Teachers. Peers, and Child Characteristics. Tessa Weyns. Bieke de Fraine, Karine Verschuern S.56.2. Performance Based Assessments To identify Gifted and Talented Students Ketty Sarouphim-Micfall. Abdulnasser Alhusaini, C. June Maker, Randal Pease	5.7.1 Applying Stembergs Theory of Mental Self-Government To Mend Ghahremani S.7.2 Powerful Strategies To Enhance The Learning of Gifted Students Nathan Leay 5.7.3 Creativity Composure: Reasonable lefertification and Bonnie O-Regan, Wonne-Nicole de St. Crok 6.7.4 Cancelled	8.8.1 The Impact of Outside-of- School Leaning: Insights From "Super Users' of Supplemental Gifted Programs Susan Corwith SS S.R. Acceleration: An Effective Option For The Development of Talents Susan Assouline, Ann Lupkowski- Shoplik, Llanne Hoogeveen, Laurie Croft	A 94 Foxening Creativity From A 94 010 8 Srinvasan Muthusamy S29. Z Esbalbing and Foxening Positive Partnerships: Collaboration and Twice/multi- Exceptional Child of Mimberley Perry, Melinda Gindy, Bek Duyckers, Garolyn Prince
9:50am - 11:05am STEAM	Programming	Diversity	G&T	Social/Emotional	Programming	Misc	Diversity	Misc
Alimni Lall 1001 Ilell immi	Alumi Hall 201 Classoom	IrinomoM COCIIcII immilly	Alumi II and Boading Boom	C11 #caac	Causatt 107 Cinoma	0(C/31C+)cmc3	CI Commodoro Ballroom	CIC Mosting Dooms 19.3
Autimin rail 100 burings Academy, Authentic Learning Peabeie Dailey, Michelle Buchann, Jason Tirumbe, Alicia Cotabish S. 16 Career Interests in Science Among Malaysian Gifted and Talented The Career Interests in Science Among Malaysian Gifted and Talented The Career Interests in Science Among Malaysian Gifted and Talented The Socioemotional Characteristics of Gifted Female and Male Marin P. Gomez-Arizaga, Marianela Marin	5.2. The free Habits of Mind: Critical Questioning For High Ability Seth Jaeger St. Balandring Content Sandards With The Hallmarks of Gt Moster St.			5.55 Diversity of Characteristics of Giffed Anxiety Among Anabic		Januar (1902a) Januar (1902a) Judenstanding Why They Emity Mofield, Megan Parker Peters S.J. 6 Wultiple Intelligences and Psychological Well-Being Lai Kwan Chan, David Chan*, Huimin Liu, Xiaoyan Sun	S5.5. Results of Pour Vear's Search Ar The National Center For Research of Origited Education Del Siegle, D. Bersy McCoach, E. Jean Gubbins, Daniel Long, Carolyn Callahan	An extension of the American American American American American American Cliffed Learners in The Early Years (Birth Through Age 5) Across The World Leathern Casper, Margaret Sutherland, Dagmar Bergs-Winkels, Jo Dean, Andrea Delaune
11:05am - 11:30am Morning Tea (Student Life Center)	tudent Life Center)							
11:30am - 12:30pm Keynote	SLC Commodore Ballroor	SLC Commodore Ballroom \mid Albert Ziegler — Learning Resources and Talent Deve	rces and Talent Development					
12:30pm - 1pm Closing Ceremony SLC Commodore Ballroom	ny SLC Commodore Ballroom							

Sunday July 28, 2019

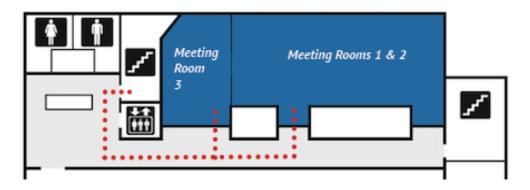
The most up-to-date schedule will be posted at www.worldgifted2019.com/schedule.

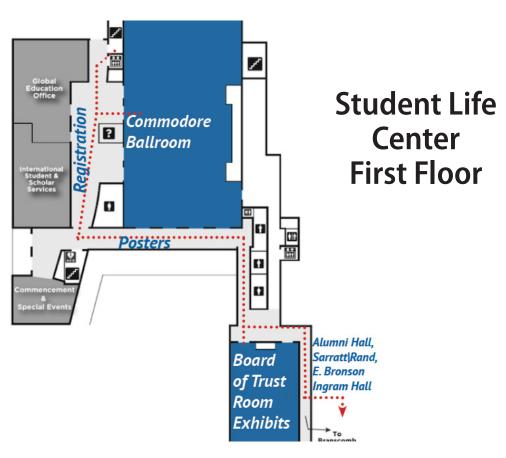
Campus Map

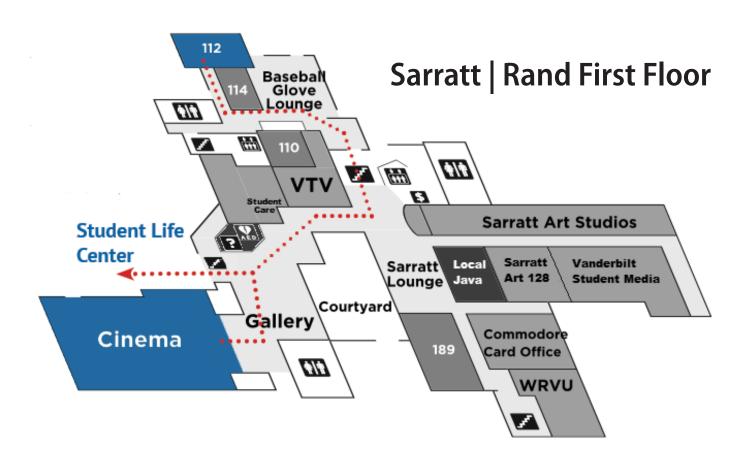


Building Floorplans

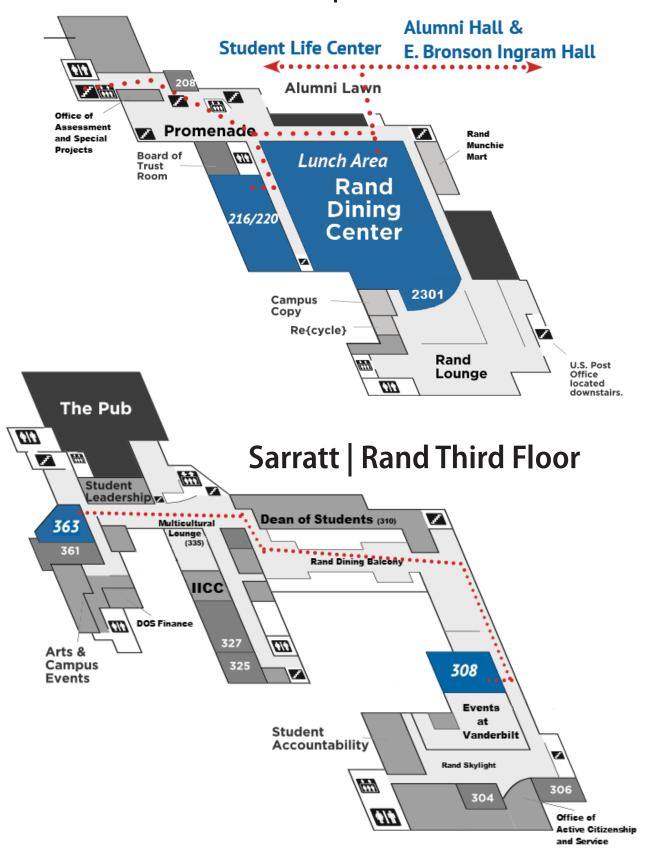
Student Life Center Basement





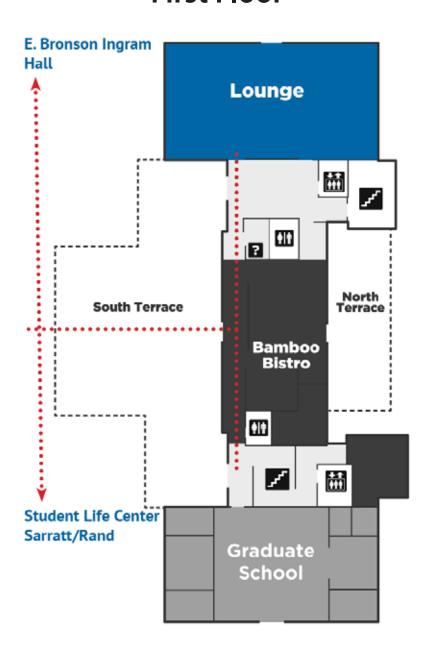


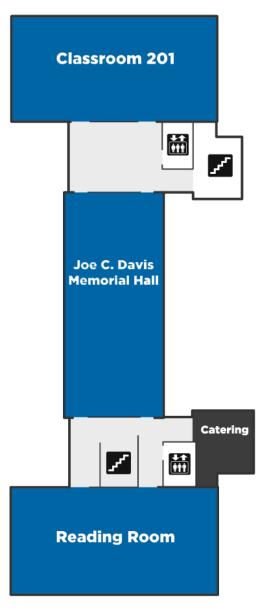
Sarratt | Rand Second Floor



Alumni Hall First Floor

Alumni Hall Second Floor





General Information

Registration

The registration table will be located outside the Commodore Ballroom in the Student Life Center on July 24, 25, 27, and 28. On July 26, the registration table will be outside the Board of Trust Room in the Student Life Center. For times, refer to the online schedule.

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
- Social Events

If you misplace your name badge, please inform a staff member or someone at the registration table.

Refreshments

Lunch and morning/afternoon coffee and tea are included in the registration fee. The lunch will be served in the Rand Dining Hall. There are three different lunch groups (A starts at 11:30 AM, B starts at 11:50 AM, and C starts at 12:10 AM). Your name badge will have a sticker that indicates your lunch group. The coffee and tea breaks will be served in the Student Life Center outside the Commodore Ballroom and the Board of Trust Room.

WiFi

You can access WiFi by using the network titled "vuGuest." No password is required. You will connect to the network, accept the terms, and then browse the web. A flyer with this information will be included in your registration packet.

Venues

The conference will be held in the Student Life Center, Sarratt Student Centers/Rand Hall, and Alumni Hall. Information about the spaces may be found at www.worldgifted2019.com/venues.

A parking map is available online at <u>www.</u> <u>worldgifted2019.com/parking</u>. If you are driving, you are responsible for paying the parking dues. The recommended parking structure is the 25th Avenue Garage, located in section 4E of the parking map.

Security

In case of an emergency, dial 911. Vanderbilt University Police Department provides a walking escort service to and from any locations on campus during the nighttime hours. If you would like to use these services, please call 1-615-421-8888.

Social Media

The official hashtag of the 2019 World Conference is #WCGTC19. If you are posting on social media, please include this and tag us @WCGTC on Facebook and Twitter!

WCGTC History

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 nonprofit organization of educators in the field of gifted education that spans the globe today.

Current and Former Presidents

Julia Link Roberts (2017-2021) Denise Fleith (2017) Leslie Graves (2013-2017) Taisir Subhi Yamin (2009-2013)

Den-Mo Tsai (2005-2009)

Klaus Urban (2001-2005)

Barbara Clark (1997-2001)

Wu-Tien Wu (1993-1997)

Norah Maier (1989-1993)

A. Harry Passow (1985-1989)

James Gallagher (1981-1985)

Henry Collins (1979 – 1981)

Dorothy Sisk (1978 – 1979)

Iraj Broomand (1977 – 1978)

Dan Bitan (1975 – 1977)

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 organization to advocate for the gifted children of the world, 150 educators in the field became

members of this founding organization. The World Council was officially incorporated and registered in the state of Delaware as a nonprofit organization 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

Program at a Glance

JULY 24

8:00am-1:30pm	Exhibit Setup (Student Life 140 Board of Trust Room)
8:00am-9:00am	Preconference Registration
9:00am-12:00pm	Morning Preconference Workshop
12:00pm-12:45pm	Lunch (Rand Dining Center)
12:45pm-3:45pm	Afternoon Preconference Workshop
1:00pm-4:00pm	Registration
2:30pm-4:00pm	Exhibit Hall Open (Student Life 140 Board of Trust Room)
4:00pm-4:45pm	Opening Ceremony (SLC Commodore Ballroom)
4:45pm-5:45pm	Keynote - Lannie Kanevsky (SLC Commodore Ballroom)
6:00pm-8:00pm	Welcome Reception (ESB Lobby)

JULY 25

7:00am-12:00pm	Registration (SLC Commodore Ballroom)
7:45am-8:00am	Announcements (SLC Commodore Ballroom)
8:00am-4:00pm	Exhibit Hall Open (Student Life 140 Board of Trust Room)
8:00am-9:00am	Keynote - Sheyla Blumen (SLC Commodore Ballroom)
9:15am-10:30am	Parallel Sessions/Symposia
10:30am-11:00am	Morning Tea (Student Life Center)
11:00am-11:25am	Parallel Sessions
11:30am-1:00pm	Lunch (Rand Dining Center)
1:00pm-2:40pm	Parallel Sessions/Symposia
2:40pm-3:15pm	Afternoon Tea (Student Life Center)
3:15pm-3:40pm	Parallel Sessions
3:40pm-4:10pm	Poster Presentations (SLC Commodore Ballroom)
4:10pm-5:30pm	Keynote - Paula Olszewski-Kubilius, Rena Subotnik, and Frank Worrell (SLC Commodore Ballroom)

JULY 26

Registration (Student Life 140 Board of Trust Room)
Exhibit Hall Open (Student Life 140 Board of Trust Room)
Parallel Sessions/Symposia
Morning Tea
Parallel Sessions/Symposia
Lunch (Rand Dining Center)
Parallel Sessions/Symposia
Afternoon Tea
Parallel Sessions/Symposia
General Members Meeting (Sarratt 197 Cinema)
Keynote - Melinda Webber (SLC Commodore Ballroom)
Delegates Meeting (SLC Commodore Ballroom)

JULY 27

7:30am-12:00pm	Registration (SLC Commodore Ballroom)
8:00am-4:00pm	Exhibit Hall Open (Student Life 140 Board of Trust Room)
8:00am-9:40am	Parallel Sessions/Symposia
9:40am-10:00am	Morning Tea (Student Life Center)
10:00am-11:15am	Parallel Sessions/Symposia
11:30am-1:00pm	GTI Editors Meeting (Bronson 1005)
11:30am-1:00pm	Lunch (Rand Dining Center)
1:00pm-2:40pm	Parallel Sessions/Symposia
3:00pm-3:30pm	Afternoon Tea (Student Life Center)
3:30pm-4:30pm	Keynote - Camilla Benbow (SLC Commodore Ballroom)
4:30pm-5:00pm	Poster Presentations (SLC Commodore Ballroom)
7:00pm-9:00pm	Conference Dinner (Wildhorse Saloon)

JULY 28

7:30am-10:00am	Registration (SLC Commodore Ballroom)
8:00am-12:00pm	Exhibit Hall Open (Student Life 140 Board of Trust Room)
8:00am-9:40am	Parallel Sessions/Symposia
9:50am-11:05am	Parallel Sessions/Symposia
11:05am-11:30am	Morning Tea (Student Life Center)
11:30am-12:30pm	Keynote - Albert Ziegler (SLC Commodore Ballroom)
12:00pm-2:00pm	Exhibit Hall Break Down (Student Life 140 Board of Trust Room)
12:30pm-1:00pm	Closing Ceremony (SLC Commodore Ballroom)

Preconference Workshops

WEDNESDAY, JULY 24 Registration: 8:00 – 9:00 AM Morning Workshops 9:00 AM – 12:00 PM

Alumni Hall 100 Lounge	Tracy Riley	Developing a Community of Researchers in Gifted Education
Alumni Hall 202 Joe C Davis Memorial Hall	Dorothy Sisk	Mindfulness as a Pathway to Well-Being for Gifted Students and Their Teachers
Alumni Hall 206 Reading Room	Leonie Kronborg	Motivated to Teach Gifted Students for Talent Development
Rand 308	Christine Deitz and Kristy Kidd	Engaging Gifted Minds: The Impact of Innovative Curriculum on Young Learners

Lunch 12:00 PM - 12:45 PM

(Lunch is provided only for individuals participating in both morning and afternoon preconference workshops.)

Afternoon workshops run from 12:45 PM – 3:45 PM

Alumni Hall 100 Lounge	Rena Subotnik and Paula Olszewski-Kubilius	Harnessing Psychology to Enhance Teaching Gifted, Creative, and Talented Students
Alumni Hall 202 Joe C Davis Memorial Hall	Margaret Sutherland	Help! We've Got a Problem: Working with Gifted Children to Address Local Issues through Research-Based Initiatives
Alumni Hall 206 Reading Room	Sheyla Blumen and Denise Fleith	Fostering Creativity in the School Setting
Rand 308	Eleonoor van Gerven	Addressing the Needs of Twice- Exceptional Students in the Regular Classroom

Keynote Speakers

Dr. Lannie KanevskySimon Fraser University



Dr. Lannie Kanevsky is an Associate Professor in the Faculty of Education at Simon Fraser University (Vancouver, Canada). Understanding and advocating for student voices in their learning has been a consistent feature

of Dr. Kanevsky's research and the materials she has developed to help learners and educators coconstruct, personalize, and differentiate learning experiences. Many of the materials can be found in the Tool Kit for High End Differentiation and on her website, Possibilities for Learning (possibilitiesforlearning.com). They have evolved through years of collaboration and research with students and colleagues in schools and universities. She has been a Visiting Professor in Australia and the U.S., and has shared her work in print, presentations, and workshops with students, educators, parents, and scholars in Europe, Asia, and North America. After completing her Ph.D. at Teachers College (Columbia University), she returned to her undergraduate alma mater to join the Faculty of Education because of its commitment to experiential learning, reflective practice, and social justice. While there she has been recognized for her scholarly teaching and selected as a Dewey Fellow by the Institute for the Study of Teaching and Learning in the Disciplines.

Keynote 1.1 Personalizing Learning: Power, Preparation, & Possibilities

Teachers hold the majority of the power in classrooms; they control what and how students learn. The transfer of control from teacher to student distinguishes personalized learning from differentiated or individualized learning experiences. Years of research on motivation have reported the academic and emotional benefits of sharing control with students by creating opportunities for them to have a voice in the design and assessment of their learning. In the process, they develop their strengths, struggle to overcome obstacles, and become increasingly accountable for their growth from mistakes and accomplishments. Personalizing learning not only enhances engagement and development, it prepares learners to learn with greater passion and efficiency beyond school. These experiences are particularly empowering for individuals with the greatest potential to learn; however, even the most capable learners vary in their readiness to take responsibility for their learning. As well as relinquishing control, educators need to be prepared to support the development of their increasing autonomy. In British Columbia (Canada), our public schools are in the midst of this transition for all learners. It's an exciting time to share the foundations, practices, and lessons learned. British Columbia's high ability learners will speak for themselves, bringing life to the process with stories of personalizing their learning.

Prof. Dr. Sheyla Blumen

Pontificia Universidad Católica del Perú



Dr. Sheyla Blumen Cohen is a Professor of Psychology and Editor-in-Chief of Revista de Psicologia (PUCP), the only Peruvian scholarly journal in Psychology indexed in Scopus. She is a board member of the

International Association of Applied Psychology. as well as of the School of Graduate Studies and the School of Psychology, at the PUCP. As founder of the Inter-Disciplinary Research Group CREA TALENTUM, she collaborates with international colleagues in the adaptation of psychometric measures related to creativity and high ability studies. As CEO of Mente Futura Foundation, she promotes talent development towards excellence in ethnic-linguistic diverse and multicultural young scholars. She was instrumental in the launching of the Peruvian Law supporting the high achievers, and in the development of the state-funded Academies of Arts and Sciences for high achievers coming from low socio-economic background and ethnic-linguistic minorities from the Andean and Amazon region. Actually 25 Academies nationwide benefit 7,000 high achieving students living below the poverty line. She was recognized with the Innovation Award in College Teaching (2015), the PUCP Research Award on 2013, 2014, 2015, 2016, and 2017; and received recognitions on Scientific Publishing (2008), Educational Psychology (2010), and Life-career in teaching and research in Educational Psychology (2014). Internationally, she received the World Bank/GDN Award for Young Scientist in Applied Education (2005), the Belin-Blank/Templeton International Fellowship on Gifted Education (2008), and the Eisenhower Fellowships (EF 2011). Chair of the 35th Inter-American Conference of Psychology, she is invited keynote at international conferences, and has been invited Professor at PUC Campinas, Universidade de Brasilia, Universidade Catolica de Brasilia, Universidad Católica de Chile, Universidad de La Frontera-Chile, Universidad Técnica Particular de Loja, Universidad Complutense de Madrid, Universidad Autónoma de Madrid, Radboud Universiteit Nijmegen, and Harvard University/School of Education. She has published 135 books, chapters, and articles in the fields of talent development, cognitive processes, and educational psychology; and participated in 36 research projects.

Keynote 2.1 Culture and High Performance: Inclusive or Exclusive Practices?

Intervention strategies for high performers belonging to culturally diverse populations pose several challenges for professionals in schools and public policies as well as in the wider community. The major purposes of this keynote are to: (a) describe teachers' perceptions about programs for high performing students following the cultural context; (b) analyze inclusive and exclusive provisions for high performers in Peru, underlining the cultural effect of social support; (c) discuss culturally sensitive intervention programs for young scholars in the Andean countries; and (d) present the challenges for future high performers belonging to the Latin American collectivistic context.

The first study explores the variables associated with teachers' perceptions about intervention programs for high performing students in different cultural contexts of Latin America. Results reveal that the perception of "exclusive practices" might prevent certain intervention strategies (e.g., acceleration) from being applied in collectivistic groups, while "inclusive practices" are included in public policies. The second study explores the relationship between Academic Resilience, Achievement Goals and Implicit Theories of Intelligence in a senior class of the Peruvian Academy of High Achievers. Results revealed that the Mastery-Approach Goal became a mediating variable between the Incremental Theory of Intelligence and Academic Resilience, among other results.

Study 3 follows a comparative study on creative performance and the classroom climate for creativity in high school students of Amazon rural and urban state-funded schools in Peru. Results will be discussed in relation to the challenges for high performers in collectivistic contexts for the future.

Dr. Paula Olszewski-Kubilius

Center for Talent Development at Northwestern University

Dr. Rena F. SubotnikAmerican Psychological Association

Dr. Frank WorrellUniversity of California, Berkeley



Dr. Paula Olszewski-Kubilius is the director of the *Center for Talent Development at Northwestern University* and a professor in the School of Education and Social Policy. Over the past 35 years, she has worked

to create programs models to meet the need of diverse gifted learners including distance learning programs, summer, and weekend programs. She has written and published extensively about issues in gifted education, with a particular focus on talent development for under-served gifted students. She has served as the editor of Gifted Child Quarterly, co-editor of the Journal of Secondary Gifted Education and on the editorial boards of Gifted and Talented International, Roeper Review, Journal for the Education of the Gifted, and Gifted Child Today. She currently is on the board of trustees of the Illinois Mathematics and Science Academy and is president- of the Illinois Association for the Gifted. She also serves on that advisory boards for the Center for Gifted Education at the College of William and Mary and the Robinson Center for Young Scholars at the University of Washington. She is Past- President

of the National Association for Gifted Children and received the Distinguished Scholar Award in 2009 from NAGC.



Rena F. Subotnik PhD is Director of the Center for Psychology in Schools and Education at the American Psychological Association. One of the Center's missions is to generate public awareness, advocacy,

clinical applications, and cutting-edge research ideas that enhance the achievement and performance of children and adolescents with gifts and talents in all domains. She has been supported in this work by the National Science Foundation, the American Psychological Foundation, and the Association for Psychological Science, the Camille and Henri Dreyfus Foundation, and the Jack Kent Cooke Foundation.

She is co-author (with Paula Olszewski-Kubilius and Frank Worrell) of The Talent Gap: The U.S. is Neglecting its Most Promising Science Students(Scientific American), Nurturing the Young Genius: Renewing our Commitment to Gifted Education is Key to a More Innovative, Productive and Culturally Rich Society (Scientific American Mind), Rethinking Giftedness and Gifted Education: A Proposed Direction Forward Based on Psychological Science (in Psychological Science in the Public Interest), and co-editor of the forthcoming (with Paula Olszewski-Kubilius and Frank Worrell) The Psychology of High Performance: Developing Human Potential Into Domain-Specific Talent, (with Ann Robinson, Carolyn Callahan and Jean Gubbins) Malleable minds: Translating insights from psychology and neuroscience to gifted education, (with Bruce Thompson) Methodologies for Conducting Research on Giftedness, and (with Frances Horowitz and Dona Matthews) Developing Giftedness and Talent Across the Life Span.



Frank C. Worrell is a Professor in the *Graduate School of Education at the University of California, Berkeley*, where he serves as Director of the School Psychology Program, Faculty Director of the Aca-

demic Talent Development Program, and Faculty Director of the California College Preparatory Academy. He also holds an affiliate appointment in the Social and Personality Area in the Department of Psychology, and from 2014 to 2017, was a Visiting Professor Appointment in the Faculty of Education and Social Work at the University of Auckland. His areas of expertise include academic talent development/gifted education, at-risk youth, cultural identities, scale development and validation, teacher effectiveness, and the translation of psychological research findings into school-based practice. A member of the editorial boards of several journals, Dr. Worrell served as co-Editor and Editor of Review of Educational Research from 2012 to 2016 and as a Member at Large (2016 - 2018) on the Board of Directors of the American Psychological Association (APA). Dr. Worrell is a Fellow of the Association for Psychological Science, the American Educational Research Association, and five divisions of APA; an elected member of the Society for the Study of School Psychology (2007) and the National Academy of Education (2018). Dr. Worrell is a recipient of the Distinguished Scholar Award from the National Association for Gifted Children (2013), the Distinguished Contributions to Research Award from the Division 45 (the Society for the Psychological Study of Culture, Ethnicity, and Race) of APA (2015), and the Outstanding International Psychologist Award from Division 52 (International Psychology) of APA (2018).

Keynote 2.2 The Psychology of High Performance

Psychologists and educators, fascinated with the beauty, grace, and sheer brilliance of extraordinary performers, share many words to describe their interest in outstanding production and performance. Texts on giftedness and talent tend to address what is known about identification, counseling, parenting, curriculum, or teacher preparation in a generic form – less on talent that is manifested developmentally in high performance within domains. Certainly, focusing on advanced and brilliant young people with high grade point averages or IQs, and what can be done to support their continued growth is important. Eventually, however, as individuals move into adolescence and adulthood, the label of gifted is less meaningful unless applied to advanced achievement and creativity in domains, fields, or professions. Our work and that of collaborating scholars builds on studies developed and led by Benjamin Bloom and his colleagues (1985, Developing Talent in Young People), which explored similarities and differences in development between and among the domains of sport (tennis and swimming), arts (sculpture and piano performance), and academics (mathematics and neurology). Bloom's book continues to be cited frequently in academic and educational circles. However, there has not been an update in over 30 years.

This session explores what is involved in the manifestation of high performance, including the major role of psychosocial skills in varied domains. Much can be learned from domains where psychological science and practice are deeply embedded, such as in sport or business, and applied to less developed fields. The session will end with a synthesis of important themes, highlighting similarities and differences across domains and gaps in the knowledge base, and providing some suggestions for future research on the psychology of high performance.

Dr. Melinda Webber University of Auckland



Dr. Melinda Webber is an Associate Professor in the *Faculty of Education at the University of Auckland*, New Zealand. Melinda is a former Fulbright/ Ngā Pae o te Maramatanga Indigenous Scholar who has

published widely on the nature of ethnic identity development, examining the ways race, ethnicity, culture and identity impact the lives of young people particularly gifted Māori students. In 2016, Melinda was awarded an esteemed 3-year Marsden Fast-Start grant to undertake a research project examining the gifted identity traits of Ngāpuhi, New Zealand's largest iwi. In 2017, Melinda was awarded a prestigious 5-year Rutherford Discovery Fellowship to tackle an important question facing educators – 'How can we foster cultural pride and academic aspiration among Māori students?'

Keynote 3.1 Unleashing Indigenous Potential: The Purpose, Power, and Promise of Gifted Education

One of the greatest challenges impacting gifted Indigenous students' participation in education concerns the restoration and experience of cultural pride and efficacy in their lives. Low teacher expectations of Indigenous students, inappropriate gifted identification criteria, ruinous media misrepresentation, and internalised deficit thinking by Indigenous students themselves, are key reasons why Indigenous under-participation in gifted education exists and persists. In this presentation, I use Aotearoa New Zealand as a case study, focusing on how Māori identity development affects the wellbeing, motivation, and academic engagement of gifted Māori students. Along with describing the importance and manifestation of gifted potential in Māori students' lives, I offer solutions for

change using the findings of the Ka Awatea study (Macfarlane, Webber, McRae and Cookson-Cox, 2014). Five social-psychological themes concerning the personal, familial, school, and community conditions for gifted Maori students thriving are discussed: Mana Whānau (familial pride), Mana Motuhake (personal pride and a sense of embedded achievement), Mana Tū (tenacity and self-esteem), Mana Ūkaipo (cultural belonging and connectedness) and Mana Tangatarua (the ability to maximise their bi- and multi-cultural knowledge bases).

Dr. Camilla Benbow Vanderbilt University



Camilla P. Benbow is Patricia and Rodes Hart Dean of Education and Human Development at *Vanderbilt University's Peabody College* of education and human development. She has led Peabody since 1998. A

prominent scholar of talent identification and talent development, she also co-directs the Study of Mathematically Precocious Youth, a longitudinal study examining the developmental trajectories of more than 5,000 individuals now in its 47th year. She is particularly interested in developing intellectual talent and excellence in science, technology, engineering, and mathematics. Benbow began her academic career at Johns Hopkins University following completion of her doctorate in education in 1981. She later moved to Iowa State University and then Vanderbilt. She has served on the National Science Board, as vice-chair of the National Mathematics Advisory Panel, and on the board of the American Psychological Foundation. She is a past trustee of Fisk University, and a fellow of the American Psychological Association and the American Educational Research Association. In 2018, Benbow received the Lifetime Achievement Award of the International Society for Intelligence

Research. She has also received the David Imig Award from the American Association of Colleges for Teacher Education (2010), the President's Award from the National Association for Gifted Children (2009), the Distinguished Alumna Award from Johns Hopkins University (2008), and the Lifetime Achievement Award of the MENSA Education and Research Foundation (2004).

Keynote 4.1 Finding and Nurturing Exceptional Intellectual Talent Over 45 Years: The Long-Term Impacts

The Study of Mathematically Precocious Youth (SMPY), based at Vanderbilt University, has been tracking more than 5,000 highly-talented individuals for more than 45 years. Most were identified through talent searches at around age 13. The study's findings have overturned conventional wis-dom about exceptional talent and have shed valu-able light on the educational policies and resources needed to support this population. In this address, SMPY co-director Camilla P. Benbow will discuss important findings for gifted education to have emerged from the study. For example, SMPY has shown that the talented and high-achieving knowl-edge-workers needed by our conceptual economy can be identified as early as age 12. Even among the most talented (0.01 percent) there is no thresh-old effect for ability. More is always better. Never-theless, the pattern of specific abilities (and inter-ests) does matter for education as well as career choice. Differences are further reflected in adult-hood, where gifted men and women weigh the importance of work, family, and personal variables differently—even as they construct satisfying lives for themselves. Overall, SMPY has demonstrated that educational interventions on behalf of gifted students have both short-term and long-term posi-tive benefits.

Prof. Albert ZieglerUniversity of Erlangen-Nuremberg



Albert Ziegler, PhD, is Chair Professor of Educational Psychology and Research on Excellence at the *University of Erlangen-Nuremberg*, Germany. He is the Founding Director of the Statewide Counseling and

Research Center for the Gifted. He has published approximately 400 books, chapters and articles in the fields of talent development and educational psychology. He developed the Actiotope Model of Giftedness, which promotes a systemic conception of giftedness. In his research, his main interests are learning resources and effective learning environments, self-regulated learning, mentoring, and gifted identification. Presently, he serves as the Secretary General of the International Research Association for Talent Development and Excellence (IRATDE), as Vice-President of the European Council for High Ability (ECHA), and as Chairman of the European Talent Support Network (ETSN). He is Editor-in-Chief of High Ability Studies, the scholarly journal of ECHA. In 2017, he was appointed Director of the World Giftedness Center in Dubai.

Keynote 5.1 Learning Resources and Talent Development

Within both research and practice, there has long been a profound interest in more than just the identification of gifted individuals, but also in what has been described as "gifted environments," "smart contexts," or "talent hotspots." These concepts form the idea that not only do individuals differ in their potential to create extraordinary accomplishments, *environments* differ, too, in their potential to make extraordinary accomplishments

possible. Indeed, talent hotspots are rich in terms of learning resources. Moreover, modern theories of talent development maintain that the target of gifted education is no longer the gifted individual, but the aggregate consisting of the individual and his or her material, social, and informational environments. Such a body – that is, the individual and her personal environment – is framed as an Actiotope in the Actiotope Model of Giftedness. Within said Actiotope, learning resources are located in both the environment as well as in the individual, thus making it necessary to devise a theory that encompasses both. Consider that exogenous learning resources lay outside of the individual, while endogenous learning resources can be found within the individual. These resources serve two main functions: (1) endogenous learning resources are necessary to process and to make full use of exogenous learning resources; and (2) they govern effective actions. This presentation offers a comprehensive categorization of learning resources, including five categories of exogenous learning resources credited as educational capital, and five categories of endogenous learning resources deemed learning capital. Practical implications of learning resource orientation for talent development are discussed in relation to two areas: talent identification and learning resource management, which is further illustrated with examples.

Parallel Session Abstracts

2.1.1 Project Period Table: A Creative, Successful Use of Type III Enrichment for the Gifted

Delanie Almazan Anaya CEDAT Talent Attention Center / Harvard University United States

Tufic Habib Libien Instituto Tecnologico y Estudios Superiores Monterrey Mexico

Erick Reyes Labastida CMAS Intensive Gifted Program Mexico

Eryx Elizarraras CMAS Intensive Gifted Program Mexico

Octavio Lopez CMAS High School for Gifted Mexico

Ian Toto Instituto Tecnologico y Estudios Superiores Monterrey Mexico

Ricardo Valdez CMAS Intensive Gifted Program Mexico

This study presents the results of the first Type III Enrichment (project-based) used with gifted students at a full-time talent program as well as its qualitative effects on teamwork abilities, communication, and independent learning. It is based on 12 months of small group project

instruction to teach high school chemistry to students 10-12 years old in an advanced placement program. This program culminated in the public presentation of the project at a national Science Custer Fair. We described the team's abilities, changes in learning strategies, and creativity within this independent but supervised project that involved learning complex biochemical concepts and public speaking skills.

2.1.2 Does the Lebanese Education System Hinder the Performance of the Highly Able Learners?

Maya Antoun University of Balamand Lebanon

Rayya Younes University of Balamand Lebanon

Sara Salloum University of Balamand LebanonThis presentation aims to investigate the reasons behind the consistent low performance in Math and Science of highly able students in Lebanon at different levels: policy, national Science and Math curricula and teacher perceptions. Through qualitative methods, the following data sources were used to address the research aim: policy document analysis, curriculum analysis, and teacher interviews. Findings indicated no evidence of curricular provisions and little attention to the needs of highly able learners in Science and Math National curricula and textbooks. Important insights into the limited

knowledge of teachers in the area of gifted education were also revealed.

2.1.3 Shape Up: Developing Spatial Abilities for STEAM Expertise and Innovation

Linda Sheffield Northern Kentucky University United States

Spatial ability, which begins at an early age, is a critical but often overlooked component of success in several STEAM (science, technology, engineering, arts, and mathematics) careers. In this session, we will briefly explore research on the role that spatial ability plays in educational and occupational STEAM innovation and expertise, including the fact that spatial ability is not hard-wired and can improve with practice. Proven spatial investigations and activities will be shared from the National Science Foundation-funded Project M^2: Mentoring Young Mathematicians, for students in kindergarten through second grade, and the Javits-funded Project M³: Mentoring Mathematical Minds, for students in grades three through six.

2.1.4 Time Attitude Profile Differences in Personality, Perfectionism, Coping, and Environmental Concerns Among Gifted Slovenian Adolescents

Frank Worrell University of California, Berkeley United States James Andretta Bridgetown Psychological LLC United States

Moica Juriševič University of Ljubljana SloveniaWe grouped 307 gifted adolescents in Slovenia according to positive and negative measured attitudes to time. Cluster analyses yielded five clusters, Positives, Negatives, Past Negatives, Present Negatives, and Pessimists. We then compared the clusters in terms of academic self-concept, positivity, the Big Five personality traits, adaptive and maladaptive perfectionism, coping strategies, environmental concerns, and environmental attitudes. Positives generally had the highest scores on adaptive constructs (e.g., positivity, coping strategies, openness to experience), and a negative group generally had the lowest scores on the adaptive constructs, with the reverse being true for the maladaptive constructs. The results indicate that there is tremendous diversity in psychosocial functioning among gifted students.

2.1.5 Using Measures of Implicit Conceptions in Gifted Education Research

Erin Miller Bridgewater College United States

Implicit beliefs are the foundational attitudes and perceptions that individuals have formed as a result of the sum of their experiences. People are often unaware of the nature of their implicit beliefs, and the measurement of something that is implicit can be a challenge. However, analyzing these beliefs is important because of the influence they can have on teacher recommendations as part of identification procedures and the decisions of policy makers about programs for gifted children. This presentation will describe the different

ways that implicit beliefs about the nature of giftedness can be empirically and quantitatively measured.

2.1.6 Teachers' Perspectives in North Italy and in the Netherlands: How Teachers Approach Gifted Students

Martina Brazzolotto University of Bologna Italy

Lianne Hoogeven Radboud University Netherlands

Teachers' perspectives play a key role in supporting gifted children in the classroom setting (Moon & Brighton, 2008; Persson, 1998). To understand how Italian and Dutch teachers think about gifted students and gifted education, we organized focus groups in North Italy and in the Netherlands and interviewed teachers individually. Italian and Dutch teachers seem to approach gifted students in a similar way: they use differentiated teaching, pull-out classes, and enrichment programs. However, Italian teachers tend to engage gifted students in the regular classroom while many Dutch teachers offer specific services.

2.1.7 Mathematics Teachers' Knowledge on Grouping Strategies in Teaching Mathematically Gifted Learners

Lukanda Kalobo Central University of Technology, Free State South Africa

Michael Mhlolo Central University of Technology, Free State South Africa The common theme that emerges on

The common theme that emerges on the gifted in regular classrooms, is that curricula designed for average learners must be modified to address the needs of gifted learners. Grouping is an effective strategy for achieving this goal. In South Africa, ways to optimally group gifted learners for instructional purposes have not received much attention. This study explored teachers' knowledge of grouping strategies in teaching gifted. A mixed method design involving 47 participants was followed. The results showed that teachers have a limited knowledge of grouping strategies in teaching the gifted. There is a need for preservice training on gifted education.

2.1.8 Teachers' Personality Factors as Correlates of Academic Achievement of High Ability Students in Nigeria

Olufemi Aremu Fakolade University of Ibadan Nigeria

School teachers generally have a long-lasting influence on the students they teach. This study is therefore interested in confirming whether or not teachers' personality factors will positively or negatively influence the academic achievement of gifted children in Nigeria. The study used a correlational type of survey research design. Purposive sampling was used to select forty participants and their teachers, and they answered five research questions. The data was collated using student academic record and three standardized instruments, and it was analyzed using PPMC and multiple regression. The results show that all three independent variables were significant; teachers' openness to experience, extraversion, and conscientiousness all correlate with the academic achievement of high ability students.

2.1.9 Effect of Using a Science Enrichment Program on High-Achieving Students' Science Achievement

Ahmed Mohamed United Arab Emirates University United Arab Emirates This mixed-methods study examined the effects of a science enrichment program at a school in Al-Khodh, Muscat on tenth-grade high-achieving female students' achievement in, attitudes about, and perceptions of science. Students responded to scales on academic self-concept, attitudes towards the enrichment program, attitudes toward regular science, and perceptions about the enrichment program. The results indicated that students' attitudes toward the enrichment program were positive. For the qualitative part of the study, semistructured interviews were conducted with the students. These interviews yielded some important themes about high-achieving students' participation in the enrichment program.

2.2.1 Practical Ideas for Improving **Critical Thinking and Writing**

Nathan Levy Nathan Levy Books LLC United States

This workshop will help teachers assist children in developing fluency in writing and thinking. Participants will develop options for problemsolving and critical thinking and will learn time-saving strategies and creative ideas. Writing and critical thinking activities that have been used successfully with gifted children will be shared in this engaging, interactive presentation.

2.2.2 Integrating Scientific **Enrichment with Science Communication Skills to Promote Self-Efficacy and Scientific Knowledge of Gifted Students**

Orni Meerbaum-Salant The Future Scientists Center for the Advancement of Gifted and Talented Maimonides Fund Israel Israel

Bruria Haberman Holon Institute of technology of Israel and Davidson institute of science Israel

Sarah Pollack

The Weizmann Institute of science IsraelWe present a pedagogical model that promotes science communication skills based on native digital skills. Our model-enhanced participatory culture — namely, creating and sharing ideas through media — by developing communication skills for communicating science. We believe that science communication may encourage gifted students to engage in science, enhance the scientific skills required to formulate independent scientific research, and encourage active citizenship. Accordingly, our goal was to understand the impact of participation in the Alpha program on students' perceptions regarding their abilities to communicate with others about science and the contribution of these abilities to enhance their selfefficacy and scientific knowledge.

2.2.3 Using Infographics to Develop Visual Literacy

Shirley Farrell Troy University United States

It has been said that a picture is worth a thousand words, but infographics are worth a million. These visual representations of text, numbers, and graphic data communicate complex information quickly and concisely on one page that goes beyond just the facts. Students use both linguistic and nonlinguistic systems to read and interpret infographics and to develop their own multi-layered data graphics that demonstrate analysis, evaluation, and synthesis of content and skills. You will enjoy "reading" their projects, and they will enjoy creating them. Leave this session with multiple resources to use or create infographics for visual literacy.

2.2.4 Introducing SWIFT: The **Smith/Westbrook Intellectual** Frustration Therapy, Designed **Specifically for Gifted Individuals**

Fiona Smith Gifted Minds Pty Ltd Australia

Dominic Westbrook

Gifted Minds Pty Ltd Australia SWIFT – introducing a tailor-made

therapy for gifted individuals designed specifically for helping them celebrate their intensity, inventiveness and intellect, while identifying and coping with the impact of chronic boredom, intellectual frustration, perfectionism and procrastination.

2.2.5 Current Practice and Future Perspective of Gifted Education in Slovenia

Polonca Pangrčič OŠ Cerkvenjak - Vitomarci Slovenia

Mojca Kukanja Gabrijelčič* Faculty of Education, University of Primorska Slovenia

A brief review with focus on main problems in teaching G&T students in regular classrooms in Slovenia, with basic terminology problems encountered by teachers in the stage of discovering gifted students is analyzed. Further, the results of the research will be presented, which indicate inadequate competences of teachers in identifying and working with gifted and talented students, lower self-assessment skills of teachers in the field of knowledge of personality characteristics and problems in the proper use of teaching strategies. In conclusion, some of the possible system solutions for working with gifted children in the future are described

2.2.6 Training Process of Gifted Teachers

Andrew Almazan Anaya CEDAT Talent Attention Center Mexico

Dafne Almazan Anaya CEDAT Talent Attention Center Mexico

This research explored the process for training teachers at a K-12 gifted education school within an underdeveloped country. It is based on the results of a qualitative research project that studied and described the five-year long process of selecting, training, and mentoring the teachers in charge of differentiated programs at a special school for the gifted in Latin America. The study outlined the learning plan and how it is applied towards teachers who are trained in countries where limited economic resources are allotted towards special gifted children centers and where currently no standardized training process has been instituted for them.

2.2.7 Building Confidence in Regional Pre-Service Teachers for Teaching Gifted Students

Margaret Plunkett Federation University Australia Australia

Wendy Holcombe* Federation University, Australia Australia

This presentation examines the perceptions of 48 final year preservice teachers (PSTs) in a regional university in Australia who were surveyed to determine their confidence in relation to teaching students with diverse learning needs. Findings suggest that the majority felt their degree had prepared them quite effectively to teach students with learning difficulties but not gifted students. As such, they were more confident that they had

the knowledge and skills required to appropriately meet the needs of students with learning difficulties than those of gifted students. The exception was PSTs who had completed an elective in gifted education; they were more confident in relation to both student groups.

2.2.8 Reimagination of Gifted and Talented Services and Identification (Paris Independent Schools)

Leann Pickerill
Paris Indpendent Schools
United States

Are you interested in expanding gifted and talented services on a small budget? Paris Independent Schools has been able to create a partnership with Georgetown College to begin a certification cohort to significantly reduce the gifted and talented student-to-teacher ratio in the district. Through collaboration and creative thinking, the district will be able to serve students with a wide variety of expanded services.

2.2.9 Female Talent Development in the 21st Century: A Brazilian Online Counseling Program for Graduate Students

Renata Muniz Prado Uninassau Brazil

Denise Fleith University of Brasiliá Brazil

This session will present findings and recommendations from an online counseling intervention to 25 Brazilian graduate women and explore challenges faced by this group concerning their talent development. The study analyzed participants' perception of their potentialities, internal and external factors associated with talent development, well-being and self-realization in this process.

Self-knowledge, interaction and sharing experiences were considered significant factors. This research offers suggestions for the planning of innovative actions aimed to promote favorable conditions for the identification and expression of female potential, as well as to share the positive effects on the use of technology in the talent development process.

2.3.1 Polyhedron Model of Wisdom

Sareh Karami Purdue University United States

Mehdi Ghahremani Purdue University United States

Marcia Gentry Purdue University United States

Although research on wisdom has gained momentum over the last 30 years, the definition of wisdom and the question of how it can be cultivated continue to be unresolved. For this reason, a systematic review of the most commonly cited articles in psychology, management, business, and education was undertaken to examine points of consensus among conceptions of wisdom and how it might be fostered in educational settings. Based on this review, the Polyhedron Model of Wisdom was developed. This model identifies components that characterize wisdom: knowledge, reflectivity and self-regulation, pro-social behaviors and moral maturity, openness and tolerance, critical thinking, intelligence, creativity, and dynamic balance and synthesis.

2.3.2 Camp Give: Possibilities through Philanthropy

Kimberly Clayton-Code Institute for Talent Development and Gifted Studies United States Winston Churchill stated, "We make a living by what we get, but we make a life by what we give." Join us as we share the outcomes of Camp Give. a middle school initiative for at-risk middle school students. Through Camp Give, students were provided with the opportunity to learn philanthropy firsthand by being grant makers in the classroom. The students researched, wrote, discussed, and ultimately selected a local nonprofit organization in which to invest \$1,000 in funds. Students participated in activities to assist them in growing their leadership skills and appreciating the value of learning. Student leadership, initiative, and philanthropy were the central focuses of the camp.

2.3.3 Cancelled

This session has been cancelled

2.3.3 The FUN Toy of Education: A Model for Every Teacher Everywhere

Mohammad Rawas Ministry of Education Saudi Arabia

This presentation will report the findings of three pilot studies using a curriculum model for differentiation. The model features three cubes that join in one column. Each cube has six faces which represent different dimensions of teaching and learning that allow teachers freedom in differentiating in their classrooms.

2.3.4 Public Images of Gifted Programs in China: Analysis of Chinese News Reports on Gifted Education

Shengpeng Huang University of Science and Technology of China China Yan Kong*
University of Science and Technology of China
China

In this study, we employed semantic network analysis and content analysis to uncover the public images of gifted programs in China and their change over time. Based on 1,486 Chinese news reports on gifted education, four images of gifted programs were found in public opinion: "successful graduates," "early ripe, early rot," "superb intelligence," and "all-around development." The rise and fall of different images show how the public opinions about gifted programs change over time, possibly influenced by both institutional interventions and culture shifts.

2.3.5 Infusing Gifted Education into Undergraduate Courses In Educator Preparation Programs

Debra Troxclair Lamar University United States

Margaret Swope Lamar University United States

Pre-service teachers need to embrace appropriate attitudes towards all student populations including those students who are gifted. In schools all over the globe, a climate for fostering academic and emotional needs of the gifted has not materialized. Findings from a recent study indicated that there was a significant impact upon attitudes toward the gifted by preservice teachers upon completion of modules that exposed participants to research-based information about young gifted children. In this session the research study will be described and findings of the study will be discussed. Additionally, the process

for the development and content of the modules will be shared, including a sample course syllabus. Student discussion responses and submitted assignments will be highlighted.

2.3.6 What Do Teachers in Denominational Schools Want to Know About Gifted Students and Gifted Education?

Ann Robinson University of Arkansas at Little Rock United States

Amy Sedivy-Benton*
University of Arkansas at Little Rock
United States

Keila Moreno University of Arkansas at Little Rock United States

Christine Deitz University of Arkansas at Little Rock United States

Federal law in the United States does not require gifted services in public education at a national level (Zirkel, 2005). Because mandates for gifted education services are dependent on state regulations, great variability exists (NAGC, 2015). The state of Arkansas mandates gifted services in public schools and provides an interesting context to examine how church-affiliated schools offer non-mandated services to their most advanced students and how denominational teachers view gifted education Our study, a needs assessment of denominational school faculty, provides insight into denominational teachers' perspectives on gifted education and establishes a USA baseline that could be used in comparative studies of denominational teachers in countries where awareness and services are more advanced in church-affiliated schools.

2.3.7 Eliciting Creative Thinking Across the Curriculum: Teacher Perception and Practice

Taylor Thompson Georgetown College United States

Teaching and involving students in creative thinking is a service to gifted students and to others. This practice, which can provide evidence for possible identification of the creatively gifted, can take place in short-term or long-term ways, can align with curriculum standards, and, through student involvement, can enhance learning and retention. Using interviews surveys, and literature sources, the presenter will summarize teacher perceptions, practice, and barriers to teaching creative thinking. This information can be used (1) to give direction in improving initial and advanced teacher education in the theory and practice of creative thinking; and (2) as a basis for promoting the practice of eliciting creative thinking across all content and for removing barriers to its practice. A short list of suggestions will complete the presentation.

2.3.8 Teachers Matter

Deb Walker New Zealand Centre for Gifted Education New Zealand

Regardless of identification and the provisions recommended for or delivered to gifted learners, their ultimate success is frequently dictated by the competency, awareness, understanding, and skill of the educator. Teachers matter. But what is the best kind of teacher to put in front of gifted children? What is necessary for maximum effectiveness? This presentation will explore the experiences of an educator who has employed more than 30 gifted teachers

over the past decade. It will offer a guide for those looking to employ teachers of the gifted.

2.3.9 Was Korczak Really Ahead of His Time?

Shoshana Rosemarin Ariel University - Ameritus Israel

Was Janusz Korczak (1878-1942) ahead of his time? In order to answer this question, one needs to analyze Korczak's educational principles and compare them to later conceptions, led by a variety of prominent educators, that were considered new, creative, and revolutionary. Korczak was a writer, pediatrician, and educator. He was against uniformity in education. Every child in the two orphanages he directed was unique in his eyes and was entitled to the fulfillment of his or her potential. Reuven Feurstein, known for his care for culturally deprived children, and Joseph S. Renzulli, representing many psychologists involved in the psychology of the gifted, seem to have followed in Korczak's footsteps.

2.4.1 No Children's Play: Early Childhood Sexual Harassment — Understanding, Coping, and Prevention in the Educational System and Community

Ayelet Giladi Voice Of Child Association -VOCA Israel Israel

This pioneering study used qualitative methods of observation to examine the concept of sexual harassment among children age 5 to 7.5 years in three educational settings in Israel. The goal was to establish whether sexual harassment occurs in Israeli preschool settings and, if so, to evaluate the extent of the phenomenon and to understand its importance among practitioners and parents.

2.4.2 Covert Aggression and Minority Gifted Children

Louise Reid RCMA Immokalee Community School United States

Connie Phelps Emporia State University United States

Covert or relational aggression between gifted children and their peers relates to academic topics such as grades and intelligence as well as traditional forms of bullying such as name-calling and topics of social status, appearance, and family. As a hidden form of bullying, covert aggression may occur far more prevalently than bullying and seriously impair the social and emotional growth and development of gifted children. This presentation discusses similarities and differences in covert aggression and bullying, instances of covert aggression between gifted children and other gifted children, and between gifted children and their nonexceptional peers as minority learners in grade six.

2.4.3 Social-Emotional Issues of Gifted Students and Bullying Prevention

Raquel Lutterbach Giannini Federal Fluminense University Brazil

Cristina Maria Delou* Federal Fluminense University Brazil

When bullying directly affects gifted children and adolescents because they have tastes and abilities (VIRGOLIM, 2007) that differ from their peers' and from a school culture that accepts failure and functional illiteracy, how can we ensure that they grow up motivated and committed (RENZULLI, 1994) to their scientific interests? This research aimed to listen to students

with AH/SD as they shared how they experience bullying, to identify interpersonal relationships among them, to work on social-emotional issues, and to create a tool for scientific dissemination on the social-emotional characteristics of the gifted as well as bullying prevention.

2.4.4 STEM Talent Support: How to Create Innovative Young Researchers

Dieter Hausamann DLR - German Aerospace Center Ghana

Tobias Schüttler Ludwig-Maximilian-University Munich Germany

The DLR School Lab Oberpfaffenhofen, operated by the German Aerospace Center DLR, is a student lab with long-term experience in the field of STEM (science, technology, engineering, and mathematics) talent support. This session presents typical aerospacerelated student research projects, including their basic conception, the practical preparation and implementation, and the development of technological spin-off products: (i) remote sensing from stratospheric balloons, (ii) a demonstration experiment for a satellite navigation system, (iii) and a control unit for performing experiments with water rockets. Furthermore, the workshop offers the opportunity to develop new ideas for innovative student research projects based on the participant's specific interests.

2.4.5 Principles of Fearless Leadership

Joseph Gulino Gulinogroup & Fearless Leadership Consulting United States The points presented in this conference session are based on the reality that everyone is a leader at some time in his or her career. A leader can be anyone who has goals to accomplish and who works with others. A leader is not just a person with a title. If we expect our students/children to grow up be the movers and shakers of the future, we need to introduce them to and help them develop solid leadership skills. Therefore, we need to be exposed to, know, and understand these skills ourselves.

2.4.6 Empowering Girls to Empower Other Girls: Sharing Outcomes of the Young Women LEAD Conference Initiative

Kimberly Clayton-Code Northern Kentucky University United States

A movement to "empower girls and empower girls to empower each other" has been taking place annually the past eight years in Kentucky and Indiana. Join us as we share our successes and lessons learned from coordinating and hosting annual Young Women LEAD Conferences for gifted and high potential high school girls. The conference aims to meet the socialemotional and career development needs of participating students who have already demonstrated their leadership skills at their respective high schools. These meaningful experiences are designed to help them discover their innate qualities and strengths and to challenge them to reach higher levels of personal growth and development.

2.4.7 Developing 21st Century Competencies to Enhance Leadership Among Gifted Students

Rachel Zorman The Henrietta Szold Institute Israel

A powerful means to cultivate leadership among gifted students is fostering 21st century competencies holistically, integrating cognitive, social, and emotional competencies. Three issues are addressed in this presentation: 1. Why is it important to cultivate 21st century competencies? 2. What are 21st century competencies comprised of? 3. How can 21st century competencies be cultivated among gifted students? These issues are discussed in light of research linking 21st century competencies to scholastic, professional, and leadership success. Discussing best practices enables researchers and educators to choose those practices which are best fitted for their students and adapt them culturally for their needs.

2.4.8 Gifted Leadership in a "Leader in Me" World

Lisa Murley Western Kentucky University United States

Pamela Jukes Western Kentucky University United States

Session participants will have the opportunity to explore tenets of gifted leadership and how the Leader in Me program can support and develop leadership qualities in students identified as gifted in this area. Conversely, the participants will examine how the increased focus on the Leader in Me might bring about a decreased number of students identified as gifted in leadership and result in a lack of individualized enrichment opportunities. As Julia Roberts (2004) asserted, "Please remember that leadership is important for all children and that is a 'must' for children who are gifted and talented."

2.4.9 Reach for the Stars

Denise Zigler Metropolitan Nashville public Schools United States

This session will enable participants to use the materials and ideas provided to differentiate lessons with gifted students. Learners will exam NASA websites to use in their classroom. Learners will also analyze, chart, and graph constellations through a hands-on lesson with teacher involvement called Reach for the Stars which teachers can implement into their curriculum and use with diverse gifted and talented learners. The content in this session consists of teacher participation in hands-on activities designed to engage gifted students, visual demonstrations. and a PowerPoint demonstration. Handouts will include the PowerPoint presentation and the Reach for the Stars materials.

2.5.1 Supporting a Gifted Global Society: Advocating through Exponential Influences, Fostering Partnerships, and Telling YOUR Story

Ciminy St. Clair Norwin School District and Pennsylvania Association for Gifted Education United States

Kali Fedor Bloomsburg University and Pennsylvania Association for Gifted Education United States

Are you interested in learning how partnerships at various levels can support student engagement, college preparation, career exploration, and problem-solving skills? Learn how a gifted association interacts with school districts, agencies, parents, colleges, and local nonprofit members as they come together to promote the development of problem-solving

and critical thinking skills among gifted students. During this session, participants will learn how to advocate effectively at various levels with district, county, and state leaders. We will engage in light lecture with active dialog and real examples from our state that can easily be applied in the participants' home areas.

2.5.2 Establishing and Facilitating a National Gifted Awareness Week

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

Deb Walker New Zealand Centre for Gifted Education New Zealand

Raising the understanding and profile of gifted education across a nation is universally at the top of the agenda for our gifted communities. Using a multi-media format, the presenters will explore the foundations and organization behind the wellestablished national Gifted Awareness Weeks held annually in both Australia and New Zealand. The presenters will highlight how these yearly events bring the national communities together, report on the outcomes achieved to date, and inspire colleagues worldwide to consider a national day, week or month of celebrating the gifted.

2.5.3 Tips for Advocating for Gifted Education: Strategy Suggestions from One State Nonprofit Organization

Catherine Blando Blando and Associates Consulting; Iowa Talented and Gifted Association Board Member United States

Maureen Marron
Iowa Talented and Gifted Association
United States

Brett Monnard
Davenport Community School District
(and board member for Iowa Talented
and Gifted Association)
United States

Advocacy at the school, district, state, and federal levels is important for building, maintaining, and protecting programs and policies for gifted education. The Iowa Talented and Gifted Association (ITAG), a statewide nonprofit organization, has navigated the advocacy waters successfully to secure and protect funding, a mandate to provide gifted education, and a position at the state department for a full-time consultant for gifted and talented education. We also have worked with federal legislators to support gifted education initiatives in the Javits Act and The Elementary and Secondary Education Act. ITAG will share its advocacy strategies which have resulted in positive outcomes for gifted education.

2.5.4 Uncovering Gifted: A Profile of an Underperformer

Carolyn Prince Education Queensland Australia

This presentation will consider the experience of one gifted student (Male X) in a low socio-economic school in Australia who was officially identified at age 14 with an IQ of 130 using the WICS (Wechsler Intelligence Scale for Children) V in December 2018. Male X has spent his secondary school career in a streamed class for high performers in a school with no formal gifted program or identification procedures. Male X has maintained predominately Bs throughout his secondary schooling. His personal experience will be shared through a series of recorded interview vignettes and supported by data demonstrating his significant underperformance compared to ability.

2.5.5 Acknowledging, Nurturing, and Celebrating Giftedness for Heightened Engagement, Achievement, and Self-Aawareness in Gifted Students

John Charadia Catholic Education Diocese of Wollongong, NSW Australia Australia

Schools utilizing a limited set of gifted identification tools and strategies acknowledge and celebrate achievement in a narrow range of subjects, resulting in students' low levels of creativity, narrowed selfawareness, limited achievement, and poor mental health. This presentation provides a framework of key factors that guide processes for the identification of and differentiation for gifted students in all domains through a holistic program of learning. This framework of integrated factors describes practices of acknowledging student giftedness, nurturing thinking skills and creativity, and celebrating achievement, practices which we have found lead to expansive self-awareness, heightened engagement, and higher levels of achievement.

2.5.6 Benefits of Holistic Assessment from a German Perspective

Madeleine Majunke DGhK Germany

Despite humanitarian efforts to identify and provide appropriate support for the socio-emotional and academic needs of gifted children in Germany, studies suggest children remain at risk. In 2012, committee members of the German Association for the Gifted Child (DGhK) learned of an approach combining method and technology to add value to on-going identification processes. In this presentation, recent real-world cases illustrate the potency of this strength-based, holistic partnership and how the insights it

provides raise the levels of knowledge and understanding that improve interventions and contribute to the realization of young people's academic, creative, and practical potential.

2.5.7 An Archdiocesan Approach to the Identification and Selection of Gifted Learners

Penina Barry Sydney Catholic Schools Australia

This session is about one Catholic school system's approach to identifying and selecting gifted students for its Newman Selective Gifted Education Program, which has improved the effective provisions for gifted learners across the largest Archdiocese of Sydney, Australia. Key findings from the pilot project suggested that parents are keen to nominate their children for placement in a secondary Newman class, systemic sharing of primary school data supports student profiles, and the use of a system-designed "hotmat" makes the process timeefficient. These findings concur with research, which concludes that using multiple criteria for identification highlights the diversity of gifted learners.

2.5.8 How an Australian Archdiocese Embedded Gifted Pedagogy within a System of Schools

Karen Cahill Sydney Catholic Schools Australia Australia

This session will outline how one Australian Archdiocese initiated the Newman Selective Gifted Education Program by utilizing contemporary research to inform practices aimed at identifying gifted students and providing them with the educational services they require within a Catholic environment. The session will discuss how 63 comprehensive Catholic primary and secondary schools are

operating and sustaining the Newman Selective Gifted Education Program. The purpose of the systemically designed program is to enhance equity for gifted learners while building the capacity of leaders in gifted education. The rigorous accreditation process that maintains the quality and integrity of the program will be shared.

2.5.9 Advocating for Gifted Programming in a Low Socio-Economic School: Can One Person Make Change?

Carolyn Prince Education Queensland Australia

This session will look at how it is possible to get a program for highly capable students up and running from almost nothing. In a low socioeconomic school where resources are thin and largely focused on repairing deficits in education, the first year of our ACE Program has been successful in the eyes of both students and teachers. With a lot of hard work, we have specialized teachers running streamed classes for students who have applied for them, challenging learning programs such as Critical Thinking and Psycho-Social Skills for identified junior students, and a range of rigorous extracurricular activities available for all interested students.

2.6.4 Mental Speed Changes as a Consequence of Gifted Education: A 12-Month-Long Comparative Study

Andrew Almazan Anaya CEDAT Talent Attention Center Mexico

Mental processing speed is an indicator of the brain's efficiency in processing information. It is guided by genetic-biological development but capable of enhancement by environment; however, the effects of specialized intensive education for the gifted and how the brain reacts

after enriched learning environments are still being not explored. In a yearlong comparative study, we found differences in mental processing speeds — such as fluidity of abstract, fine visual-motor intelligence, and visual recognition — among 125 gifted children receiving differentiated special education versus another 125 in traditional education. We unveiled several neuropsychological benefits related to special education for the gifted and the setbacks of leaving these students unattended.

2.6.5 Teaching for Talent Development: How to Motivate, Engage, and Educate Innovators

Jeanne Paynter McDaniel College United States

Talent-Targeted Teaching and Learning is a brain-based model for talent development that fosters students' content expertise, metacognition, and creative problem-solving. Educators create and assess talent development goals that target specific aptitudes such as creativity, insight, persistence, or logical reasoning which undergird student engagement, motivation, and achievement. Teachers assess students' growth using Talent Development Continuum rubrics, and students use corresponding rubrics to self-assess, reflect, and record their progress in their portfolios. Talent-Targeted Teaching and Learning engages and advances students' talents in STEM (science, technology, engineering and mathematics) and the humanities by aiming beyond content mastery to the talent aptitudes essential for creating innovators.

2.6.9 Catering for Gifted Learners in Lebanon: The Case of LWIS-City International School

Mira Alameddine Lebanon Nather Simhari LWIS-City International School Lebanon

Lebanon, a small country in the Middle East that is still developing and expanding its special education curriculum, aims for an inclusive education for all learners. However, although there have been some very successful attempts of inclusive education by some private schools, there have not yet been official records of programs that serve gifted learners. The aim of this presentation is threefold: first, to share the experience of LWIS-City International School-DT (LWIS-CiS) in providing for the needs of gifted children; second, to share the program for the gifted and talented that was developed; and third, to share the challenges facing gifted education in Lebanon.

2.7.1 Detection Talent from the Perspectives of Students, Parents, and Teachers

Poul Nissen Aarhus University Denmark

In many schools, there will be gifted students who need a challenge, but are unidentified. Thus early identification and intervention is necessary for optimal development. However, many intelligence tests are time-consuming and costly. Based on research and clinical experience three 25-items checklists were developed one for students, parents and teacher. In advancing the practical application of the checklists a set of cut-off intervals for identification of gifted and talented students were developed. Using the intervals enables the student, parents and/or teacher to determine the probability of giftedness within few minutes. The checklists are available as an app-version.

2.7.2 Identifying Talent Across Contexts using the TABs (Traits, Aptitudes and Behaviors)

Meg Hines University of Georgia United States

Sarah Sumners University of Georgia United States

This session will give a brief overview of the TABs (Traits, Aptitudes and Behaviors) instrument and its core attributes, as well as share exemplars of the instrument and how it was used in a variety of settings. Participants will be able to examine TABs examples and evaluate them for effectiveness. In addition, participants will begin to propose ideas about how they might use the TABs instrument in their setting for a variety of purposes. This session provides practical application of a research-based instrument to promote equity and excellence in talent development programs and services.

2.7.3 Cancelled

This session has been cancelled

2.7.4 Am I Different? Exploring Gifted Identity Formation through a Lens of Difference

Kimberley Perry Emmanuel Catholic College Australia

Identity development is a vital component of human experience. This study investigated whether gifted children enter identity development stages at a younger age than their peers and whether giftedness brings with it a sense of difference. Successful identity development often leaves gifted individuals with strong convictions and purpose in life, whereas failure to navigate these challenges may bring

uncertainty and underachievement. Parents' perceptions of gifted children's experience of giftedness in Western Australia were collected by contextual and self-perception questionnaires and semi-structured interviews. Thematic analysis of the semi-structured interviews was completed to identity themes that impact the gifted individual's sense of difference.

2.7.5 Educator Perceptions of Gifted and Talented English Language Learners

Michelle Lynch United States

This presentation will focus on the Gifted and Talented/English Language Learner (GT/ELL). Strategies for identification and services will be discussed. We will explore obstacles, teacher perception, referrals, professional development, and modifications of curriculum to best serve gifted students who fall into this category. Local norms will also be discussed as well as the overall issue of underrepresented students in gifted and talented programs. Participants will be able to share ideas and solutions for maximizing the school experience of GT/ELL students.

2.7.6 Developing Equity and Access for American Indian/Alaska Native Youth with Gifts and Talents

Anne Gray Purdue University, Gifted Education Research and Resource Institute United States

Marcia Gentry Purdue University, Gifted Education Research and Resource Institute (GERI) United States

Using our analysis of the Civil Rights Data Collection of the equity and access that American Indian and Alaska Native (AIAN) youth have as a base, we discuss next steps. Which states are more successful providing access and equity in identification for these youth and what can we learn from them? What are the possibilities for the use of local norms rather than national norms? Which stakeholders need to be educated about gifted education and AIAN youth? What do we still need to learn about these youth and their participation in gifted education?

2.7.7 Culture in Gifted Programming: A Native American Case Study at Standing Rock Community Schools

Edwin Edpalina Standing Rock Community Grant School United States

Yee Han Chu University of North Dakota United States

School districts must recognize how exceptional abilities present themselves in diverse student groups. This requires appreciation of the role culture plays in the conceptualized and expression of giftedness. This session provides a case example of GT programs in the all Native American Standing Rock Community Grant School District located on the North Dakota/South Dakota border. Attendees will learn about the meaning of giftedness among D/Lakota people and how GT programs identify students who can preserve the D/Lakota cultural customs and way of life. We will discuss culturally appropriate identification protocols within the domains of language, visual, and performing arts.

2.7.8 Adolescent Latina Identity in Dual Language Gifted and Talented Classrooms

Jenna Nelson Concordia University Chicago United States This project considers how Latina learners and giftedness are constructed within the United States through cultural norms in middle grades gifted and talented classrooms. This inquiry exposes how these learners disrupt ready-made constructions of giftedness.

2.7.9 Best Practices to Facilitate High Ability LGBTQ+ Student Success

Jo Tuite Ball State University United States

What do gifted LGBTQ+ students need in order to thrive in school? This session will discuss best practices that facilitate the academic, social, and emotional well-being of students who sit at the intersection of both the high ability and LGBTQ+ identifiers.

2.8.4 An Exploration of Gifted Adolescent Motivation in Academic Learning Experiences

Vicki Phelps Sumner County Schools United States

With a focus on learning more about the unique learning needs of gifted adolescents, this qualitative case study examined gifted adolescents' perspectives on motivation in regard to academic learning experiences through the theoretical lens of Gagne's Differentiated Model of Giftedness and Talent and expectancy-value theory. Through the triangulation of data collected from interviews, student work samples with reflection tags, and student response journals, three major outcomes emerged. Findings from four major themes and thirteen sub-themes provided new insights regarding how to increase academic engagement and achievement in gifted adolescents, as well as new implications to the field of education

2.8.5 Recognizing and Serving Diversity in Rural Gifted Populations

Norma Hafenstein University of Denver United States

Kristina Hesbol University of Denver United States

It is our responsibility as educators to recognize and serve every gifted student. A three-year, federally funded project explored barriers to and supports in identifying and serving traditionally under-represented students including low-income, English language learner, Hispanic, and Native American students in rural areas of a western US state. Project activities included interviews, leadership webinars, instructional strategies and identification process training, coaching, site-based gatherings, networking sessions, and a state-wide symposium. This mixedmethod study indicates that problem recognition and intensive and systemic interventions produce positive results. Project activities, lessons learned, field recommendations, and suggestions for further study will be shared.

2.8.9 2e Literature: An International Content Analysis

Claire Hughes College of Coastal Georgia United States

Debra Troxclair Lamar University United States

How much has the term "twice-exceptional" made it into professional literature and research around the world? Who is publishing work about twice-exceptional? What is the focus of literature on 2e? This study provides the results of a content analysis that examined the literature

over the last twenty years that used the terms "2e" or "twice-exceptional" in its descriptions in an online search, providing a total of 563 articles analyzed for peer-reviewed status, content, and journal source. Results and implications will be shared.

2.9.4 The Major Characteristics and Trends in Doctoral Dissertation Research in Gifted Education (2006-2016)

Hyeseong Lee Purdue University United States

Marcia Gentry Purdue University United States

This study presents a content analysis of doctoral dissertations in gifted education from 2006 through 2016 (n = 683) to find characteristics and changes in the field. The major topics of the studies are categorized into 16 networks in the National Association for Gifted Education and compared with the future directions suggested in the State of the States in Gifted Education report (2014-2015) to see the gap between research and practical needs. The findings not only outline significant trends but also provide an understanding of the evolving nature of gifted education dissertation work (i.e., research method, data source, participants of the study, etc.).

2.9.5 Seeing the World of Possibilities: Creative Problem Solving

Laurie Croft Belin-Blank Center United States

Creativity, "the crucial 21st century skill" (Robinson 2009), was elaborated almost 70 years ago as Creative Problem Solving (CPS) with the publication of Alex Osborne's Applied Imagination. Researchers have

analyzed and updated CPS, providing teachers with effective strategies that encourage students to apply personal creativity in their lives. In fact, CPS has become popular in the corporate world, encouraging creative thinking and innovative problem-solving to improve organizational communication and interpersonal skills. Participants will practice CPS and develop confidence in developing scenarios that will encourage students to use both divergent and convergent thinking in ways that result in balanced decisions.

2.9.9 Why Do We Not Have Gifted Education in Schools? Facilitators and Barriers for Implementation in Chile

María Leonor Conejeros-Solar Pontificia Universidad Católica de Valparaíso Chile

Katia Sandoval-Rodríguez* Pontificia Universidad Católica de Valparaíso Chile

María Paz Gómez-Arizaga Universidad de Los Andes Chile

Sandra Catalán Henríquez* Pontificia Universidad Católica de Valparaíso Chile

Claudia Nuñez Chaufleur* Pontificia Universidad Católica de Valparaíso Chile

The Chilean educational system has no existing legislation to secure adequate provisions and services for gifted students, and no attention is paid at the school level to gifted education. This study sought to explore the facilitators and barriers for the implementation of gifted school provisions in Chile. A mixed methodology was used with an initial quantitative giftedness

screening of 1,333 students in seven schools and a later qualitative phase focused on 12 interviews and four focus groups with relevant school staff in four schools. The results found enthusiasm and a willingness to learn but also administrative barriers and an excessive focus on disabilities in teachers' daily work.

3.1.1 "We Can Do It, Too!" Blended Learning Strategies for 2E and Gifted English Language Learners

Javetta Jones Roberson Birdville ISD/ Texas A&M University-Commerce United States

During this session, participants will learn how to incorporate blended learning activities for diverse gifted populations on the elementary and secondary levels. Although the strategies discussed can lead to success for various diverse groups, twice-exceptional and gifted English language learners will be the primary focus. We will also include ways to ensure culturally responsive teaching practices are reflected in lesson planning for these dynamic gifted students through blended learning.

3.1.10 Teaching Executive Function Skills: Bridging the Gap Between Theory and Implementation with 2e Learners

Ley-Anne Folks Westmount Charter School Canada

Heather Lai Westmount Charter School Canada

This presentation focuses on the results of a three-year action research project based on supporting executive function skill development in a congregated gifted setting. This research is particularly important given the asynchronous nature of development in

gifted and twice exceptional learners. The areas of executive functioning on which we will focus are organization, working memory, behavior management, planning, prioritization, task initiation, sustained attention, metacognition, and corresponding supportive academic strategies.

3.1.11 Examining Overexcitabilities and ADHD in Gifted Students in Jordan

Anies Al-Hroub American University of Beirut/ University of Connecticut United States

Malak Krayem American University of Beirut Lebanon

This presentation sheds light on the misdiagnosis of ADHD in gifted students with overexcitabilities (OE) by examining the relationship between characteristics of OE and symptoms of ADHD among gifted adolescents in Jordan. The study also used vignettes to investigate teachers' abilities to identify whether an adolescent exhibits ADHD or OE symptoms. The study revealed that none of the teachers could identify the five types of OE. A low significant correlation was found between psychomotor OE and hyperactive-impulsive ADHD. Additionally, a low significant negative correlation was found between intellectual OE and inattentive ADHD scores

3.1.12 Supporting Gifted Students' Need for Choice and Challenge to Maximize Gifts, Talents, and Potential

Amy Graefe University of Northern Colorado United States

Part of understanding giftedness is recognizing the affective and academic need for choice and challenge in school. This session will provide teachers with a rationale for including these components in their instruction and with resources they can immediately utilize in their own classrooms. We will provide examples of strategies that can be used with any content area and grade level and will also share resources to support gifted learners in evaluating both their own learning process and the products they create.

3.1.13 Effective Strategies for Increasing Choice and Voice of Gifted Learners

Diane Heacox St. Catherine University United States

Wendy Behrens Minnesota Department of Education United States

Student choice and voice clearly define many of the practices in personalizing learning. What are exemplars of these concepts in classroom implementation? How must they be defined and framed to represent authentic learning experiences for gifted learners? This session shares strategies identified by a Javits Project that clearly exemplify choice and voice for gifted learners. Particular attention will be paid to the commonalities and differences of problem-based and project-based learning as they relate to student voice and choice. Frameworks and criteria for successfully designing complex and in-depth project-based and problembased learning experiences for gifted learners will be detailed.

3.1.14 Lessons learned about Curriculum for Gifted through 20 Years with Problem-Based Learning

Shelagh Gallagher Engaged Education United States Twenty years of work using Problem-Based Learning (PBL) have yielded substantial insight about the heart of best practice in developing and delivering curriculum for gifted students. This presentation will provide a synthesis of lessons learned both about PBL and about curriculum for gifted students in general, including the relationship between a curriculum and individual lessons, between curriculum and instruction, and between curriculum and gifted students.

3.1.2 Belonging While Brown: Navigating the World as a Gifted Student of Color

Ashley Scott Midtown International School United States

Tiffany Blassingame Midtown International School United States

Black and Latinx students are significantly underrepresented in gifted and talented programs across the US. We must consider how implicit bias and racism work to keep kids of color from the types of programming that challenge them and provide a path to greater long-term success. This workshop will help teachers understand the unique ways that giftedness manifests and can be nurtured. Participants will review specific behaviors to observe, consider strategies for meeting the needs of gifted students of color, and discuss how schools can address the bias that contributes to the underrepresentation and underserved population of gifted students of color

3.1.3 General Education Teachers' Understanding of High Potential in Typically Underserved Students

Pam Peters University of Connecticut United States Kelly Kearney Unviersity of Connecticut United States

Rebecca O'Brien University of Louisiana at Lafayette United States

Catherine Little*
University of Connecticut
United States

General education classroom teachers tend to have relatively narrow conceptions of giftedness that may not capture behaviors that tend to be more prevalent in highpotential learners from diverse populations. During interviews, we asked teachers to talk about a gifted student, then about a gifted student from an underrepresented population. They were also asked to discuss their responses to these students. The authors discuss the differences that emerged when they analyzed these responses, including student characteristics, content background, and the way teachers framed their responses in terms of students' strengths versus deficits or challenges.

3.1.4 Guiding the Gatekeepers: Using Professional Learning to Promote Equity and Access in K-12 Gifted Education

Angela Novak
East Carolina University
United States

Katie Lewis York College of Pennsylvania United States

There is a well-established lack of identification among certain cultural, linguistic, and economic categories of children for programs for the gifted and talented. With teachers often serving as gatekeepers for gifted programs, teaching training is frequently recommended as a partial solution. This session will focus on the

need for targeted professional learning on the characteristics of typically underrepresented youth in order to help teachers better recognize how various cultures manifest giftedness in ways not typically represented on checklists or in ways that fit the traditional understanding of giftedness. Presenters will share a structured plan for professional learning that can be adapted to participants' districts.

3.1.5 Imaginarium: A Holistic Approach Toward Nurturing and Growing Gifted Girls so They Can Flourish

Bek Duyckers Imaginarium @ Perth College Australia

The Imaginarium is a unique initiative fostering the holistic development of gifted girls' cognitive, social, emotional, and vocational domains. Courses, predominantly featuring STEM topics, are developed based on participants' interests, passions, and intense curiosities. This presentation will explore the growth of the Imaginarium from an initial idea to a flourishing community resource addressing the needs of gifted girls from years one through nine. The session will include pedagogical models, examples of courses and their content, and methods employed to develop 21st-century skills through a Positive Psychology lens.

3.1.6 Ideas Matter! Fostering Social Entrepreneurship & Philanthropy in Gifted Learners

Barbara Swicord NSGT/SIG United States

Social entrepreneurship is a perfect curriculum topic for gifted and talented youth and ideal fodder for global citizenship. It capitalizes on gifted students' need for meaningful activity, engages their moral standards, and challenges their complex and creative thinking abilities. Participants will learn ways to empower students through social entrepreneurship, which is founded on the recognition that social problems require new thinking and new approaches.

3.1.7 Computational Thinking: GT Applications Beyond the Math Classroom and Across the Curriculum

Joyce Miller
Texas A&M University Commerce
United States

Isaac Gang Texas A&M University Commerce **United States** Computational thinking is not just for the technology, math, and science classrooms. This presentation will share the many ways GT teachers of subjects other than math and science can help students develop good computational thinking skills while preparing for careers in computer science or a wide variety of other fields. Computational thinking's connections to Creative Problem Solving, the Hilda Taba Model and Bloom's will be demonstrated. Participants will leave with a PowerPoint of links to a varied set of examples of interdisciplinary connections to algorithm, decomposition, patterns, and abstraction — the keys to computational thinking.

3.1.8 Supportive Strategies for Guiding Twice/Multi-Exceptional Learners, Their Parents, and Teachers in Diverse Schooling Situations

Raquel Bronsoler Universidad de Los Niños Mexico

We applied various strategies from our afterschool program into a homeschool setting for twice-exceptional children. The goal was to create an environment

to nurture children's abilities without allowing their learning difficulties to stunt their development. We will analyze different strategies and give advice on how to develop afterschool programs for gifted and homeschooled children that create opportunities to nurture talent. These proven, successful strategies allow students to develop their academic social and emotional sides, become well-rounded individuals with the ability to think and make the best choices, and develop into intrinsically self-motivated lifelong learners. We will soon be starting these same workshops online.

3.1.9 The Assessment of Teachers' Attitudes Toward Twice-Exceptionality: Development and Validation

Pam Peters University of Connecticut United States

D. Betsy McCoach University of Connecticut United States

The development of the Assessment of Teacher Attitudes toward Twice-Exceptionality (ATATE) included multiple rounds of data collection using three versions of the assessment. The authors conducted two rounds of content validation and collected three distinct samples to analyze the instrument properties, each taking a different iteration of the survey instrument. Analysis included content validation and exploratory and confirmatory factor analysis. The final version of the instrument, including items and instrument properties, will be shared with attendees.

3.2.1 An International Cooperative Problem Solving Based Program for Nurturing Future Scientists

Ching-Chih Kuo National Taiwan Normal University Taiwan Chia Chao Li National Taiwan Normal University Taiwan

The Asia-Pacific Forum for Science Talented (APFst), organized by National Taiwan Normal University (NTNU), is designed to provide science talented students with opportunities to get to know each other, showcase their talents, and work collaboratively. Targeted participants are middle and high school talented students aged 13-16. With a core theme of "Nurturing Future Scientists for the Betterment of Society," the five-year project, first introduced in 2015, has an array of activities designed to prepare young talent for future responsible leadership and contributions to society. The APFst events were greatly enjoyed by participants.

3.2.10 Art Education: A Tool for Talent Development for Underrepresented Gifted and Talented Students

Maria Katsaros-Molzahn Oregon School District United States

Challenging problems require transdisciplinary solutions. Equity demands that all students receive appropriate services; however, poverty limits opportunity. According to the National Association for Gifted Children (2017), approximately 6% to 10% of all students exist within the gifted and talented range. A specific subset of this demographic, underrepresented gifted and talented (UGT) students fail to receive appropriate access to talent development. The themes and opinions regarding equity, UGT students, and arts education discovered in this study provide salient recommendations for the academic community. This presentation argues that talent development requires arts education to enrich and support UGT students.

3.2.11 How Do You Prepare Gifted and Talented Teachers for Student Diversity?

Karen Blake Qualls The University of Cincinnati United States

Beth Hahn University of Cincinnati United States

Tracy Alley University of Cincinnati United States

Aimee Fletcher University of Cincinnati United States

Kimberly Gordon University of Cincinnati United States

During this session, participants will learn how a noted university strengthens the ability of teachers to provide leadership for diverse gifted students in their schools. The interactive session uses discussion board questions, case studies, and current resources. Our educators bring to the table the rich history of gifted education in urban and rural environments to glean and apply in new ways.

3.2.12 Identifying Gifted English Language Learners

Michelle DuBois Boulder Valley School District United States

Robin Greene Denver Public Schools United States

English language students who are advanced and gifted learners are some our most at-risk students. These learners come with unique academic, intellectual, cultural, social, and emotional needs. In this session,

participants will learn how a body of evidence is the key to early and accurate identification of students who are talented and gifted from diverse sub-populations. Participants will learn how to use various assessments to identify students from diverse populations. Presenters will also discuss programming strategies for gifted English Language Learners.

3.2.13 Identifying Diverse Gifted Students in Large U.S. Urban Districts

Rae Lymer
Baltimore City Public Schools
United States

Dennis Jutras Baltimore City Public Schools United States

This session will discuss approaches to equitably identifying and serving linguistically and culturally diverse gifted learners in urban centers from the district with the fastest growth of gifted and talented programs as recently recognized by the Maryland State Department of Education. This presentation will cover identification measures and models and the resulting data from each, along with interventions that work in Baltimore City Public Schools to identify and serve the needs of historically underrepresented populations with an effort to close the excellence gap.

3.2.14 Validation Study of the HOPE Scale: Identifying Gifted Students from Low-Income and Multicultural Families

Hyeseong Lee Purdue University United States

Marcia Gentry Purdue University United States

Because of the challenges inherent in identifying gifted students from low-income families and those from minority backgrounds, the HOPE (Having Opportunities Promotes Excellence) Scale is designed to more equitably identify students' giftedness based on teachers' observations. The students' HOPE Scale scores were first compared by income and ethnic groups to see whether a true difference exists; then confirmatory factor analysis as well as multilevel confirmatory analysis were conducted to see construct validity evidence (N=1157). To see the association with other variables (e.g., reading and math scores), structural equation modeling was added along with interview data (N=6) from teachers who shared their opinions and perceptions regarding gifted students from low-income and multicultural families

3.2.2 Effects of PBL on Gifted Education and Best Practices

Mucahit Karakas Harmony Public Schools-DFW United States

How do I motivate my gifted students in the classroom throughout the semester? How do I keep them on track, engaged, and focused? How do I prepare them for the future? How do I equip them with the required skills for the 21st century workforce? These are significant questions for which many teachers are searching for answers. Teachers' main concerns are helping students to master important academic content while also promoting student engagement. This study investigated the impact of PBL on GT students' academic achievement.

3.2.3 Transdisciplinary Made Possible: When Gifted Education Meets Culturally Responsive STEAM Education

Debbie Troxclair Lamar University United States Chin-Wen Lee*
University of Louisville
United States

Sheron Mark*
University of Louisville
United States

What does culturally responsive STEAM (science, technology, engineering, arts, and mathematics) education look like for gifted and talented students? This session demonstrates a professional learning project for general education teachers who want to provide challenging curricula for their advanced learners. The project equips teachers with the fundamental principles of gifted and talented curricula and instructions, STEAM education, and culturally responsive pedagogy. Teachers develop transdisciplinary curriculum units based on their areas of expertise, and university instructors facilitate their curriculum development and execution. Examples from the teachers will be shared. Participants will leave with knowledge about culturally responsive STEAM education so they can enhance their curricula for gifted education.

3.2.4 Project TEXTures: The Power of Team Teaching and Multiple Genres

Tommie Chen Hwa Chong Institution Singapore

Pei Li Liew* Hwa Chong Institution Singapore

This presentation hinges on the concept of differentiated instruction (Tomlinson, 2001) where the content, process, and product of the endeavor are differentiated for the top two gifted education classes in the Hwa Chong Institution. Through cogenerative dialoguing and team teaching, we designed a unit on transnational

crimes that enabled students to be involved in serious intellectual and moral examination. Combining corpus linguistics, analysis of media articles and close reading of literary nonfiction, students critically examined the framing, perspective, and biases underlying the texts. This module culminated in a video produced by students to showcase their perspectives and findings. This presentation will highlight the factors that led to the program's success and share the pitfalls that may have hampered aspects of the outcome.

3.2.5 Too Many Possibilities: Multipotentiality as a Challenge for Career Decisions

Tillmann Grüneberg University of Leipzig Germany

In the context of career choice of gifted students, multipotentiality is a broadly discussed problem. After a discussion of different concepts of giftedness and multipotentiality, empirical data from several questionnaire-studies with different groups in Germany will be presented: gifted pupils before and after career selection (n=86, n=135), gifted and non-gifted students (n=390), career counselors (n=230), and counselors for the gifted (n=64). Additional data from an online career choice test-tool (n=2,234) will be used to estimate percentages of multipotentiality among the gifted in consideration of the different discussed concepts.

3.2.6 School Counselors' Self-Efficacy Regarding Gifted Students: The Role of School Counselors' Self-Competence and Perception

Halil Aslan middle east technical university Turkey

The purpose of this study was to the examine role of school counselors' self-competencies and perceptions regarding gifted students in predicting counselors' self-efficacy. Participants of the current study consisted of 118 school counselors who work in Elazığ. Data were collected using four instruments: the School Counselors' Knowledge Scale, the School Counselor Perception Scale, the School Counselors' Self-Efficacy Scale Regarding Special Education, and a demographics form. Hierarchical regression analysis was performed to analyze the data. The results revealed that the work experience and education level of school counselors were not significant predictors of counselors' self-efficacy, whereas the counselors' self-competencies and perceptions were significant predictors

3.2.7 Training Psychologists on Giftedness: A Brazilian Experience

Renata Muniz Prado Uninassau Brazil

Daniela Vilarinho-Rezende UniAnchieta Brazil

Regardless of setting or venue, psychologists, therapists, and counselors will at some point in their careers encounter a gifted person, so they should be prepared to better serve this population. In Brazil, there is a lack of preparation for mental health professionals for providing services to the gifted. This work aimed to present professional development training for psychologists that emphasized giftedness and talent development. Conceptions, myths, national policies, and the characteristics of gifted individuals were discussed. The training was also an opportunity to strengthen the network of professionals interested in the field.

3.2.8 Productive Giftedness of Eminent African American Writers: Maya Angelou and Langston Hughes

Kenya Marshall-Harper Claremont Graduate University United States

Susan Paik Claremont Graduate University United States

The works of notable African American writers are often spotlighted in American culture. However, little is known about the factors that contributed to their success Based on the Productive Giftedness Model (PGM), this study reveals key individual, instructional and environmental factors, leading to the eminence of two writers. PGM discusses key factors such as mentoring, teachers, parents, peers, motivation, and other supportive conditions that sustained each writers' productive giftedness (defined as excellence or mastery). Socioeconomic, historical, and cultural factors are also contextualized within the model. In-depth biographical case study methods were employed to understand and present a comprehensive lifespan approach.

3.2.9 Reading Rainbow Remix: Fostering Cultural Competence of Gifted Teachers through Literature in Professional Learning Settings

Katie Lewis York College of Pennsylvania United States

Angela Novak East Carolina University United States

Children's literature is an effective tool for creating a classroom culture that embraces cultural diversity and builds understanding among students, and professional learning communities often use educational texts as the basis for discussion. These two concepts are combined in this session; participants will leave with an understanding of how to incorporate multicultural children's literature in professional learning communities in order to foster teachers' culturally responsive teaching practices. The presenters will model how to use literature during professional learning sessions and book studies so that attendees are better prepared to utilize the strategy with teachers in their own districts.

3.3.1 A Review of Educational Interventions for Gifted Students -Methodological Shortcomings and Implications for Research

Caroline Sims Uppsala University Sweden

This presentation is a review and a critical reading of 46 studies on acceleration or enrichment. Questions that will be examined include: What claims are made about the impact of acceleration and enrichment? What methodological limitations are illustrated? What recommendations can be made to improve the quality of research within the field? The majority of studies claim a positive impact for the interventions. However, this article claims a need for an increase in transparency of criteria for sample selection, and clarifications of the definitions of significant concepts. Moreover, it argues for a need for extended identifications procedures, as well as addressing assumptions based on treating gifted students as homogenous.

3.3.10 Assessment of the Gifted Adolescents' Functional State of the Organism Under the Psychological Stress

Madlena Arakelyan Yerevan State Medical University after Mkhitar Heratsi Armenia

Many studies have shown that gifted children and youth have mental health problems. These problems include depression, anxiety disorders, ADHD, etc. Our aim is to evaluate the adaptive capacity, the functional state of the gifted adolescents' organisms under external potential stressors. The results show gifted adolescents can have a severe psychophysiological response to stress that can lead to psychosomatic and psychological problems. The solution for this problem for gifted adolescents is identical to the solution for athletes or pilots: responsibility and overload of psychophysiological state.

3.3.11 Addressing Suicide in Gifted Youth: Educator Response to Existential Crisis

Lisa Van Gemert Lisa Van Gemert, LLC United States

What can schools and teachers do to effectively address suicide among gifted students? What are the "first, do no harm" guidelines we should follow? This session confronts the complicated issues of student suicide, empowering educators with the information they need to appropriately discuss the issue with gifted students at various ages. Educators will gain the skills they need to address the issue if it happens on their campuses, and they will explore the intersection of suicide with giftedness. Cooperatively developed with a therapist specializing in gifted, this session is technique-based and practical.

3.3.12 Individualized Academic Pathways in U.S. and International Schools: Rethinking Pace, Progression, Personalization, Programming and Purpose

Anita Churchville American School of Bombay India Support provisions for gifted and highly able learners are insufficient when they are simply a facsimile of the established strategies, schedules, and structures in place for the neurotypical student. Truly addressing the needs of this population necessitates a rethinking of the 5 Ps (pace, progression, personalization, programming, and purpose). This session explores ways in which individualized academic pathways for students can be created and implemented within schools, including international ones, while keeping in mind the importance of talent development.

3.3.13 The Construction and Implementation of a School-based Talent Development Program

Kai-Ju Huang Shidong Elementary School, Taipei, Taiwan Taiwan

Chien-Hong Yu Shidong Elementary School, Taipei, Taiwan Taiwan

In gifted education, the talent development paradigm emphasizes the development of capabilities and the diversity of talents. Systematic support from the environment is the essence of facilitating talent development. This action research was carried out to construct and implement a schoolbased talent development program rooted in a school context and school resources. The current support from the focus school's context for talent development was first analyzed. Based on the analysis, enrichment curricula for talent development were constructed and implemented. The effectiveness of the enrichment curriculum was then examined

3.3.14 Identifying and Nurturing Exceptional Ability in Young Children: A Talent Development Approach

Susan Corwith North United States

From a talent development perspective, giftedness is developmental, and ability evolves over time, influenced by factors such as opportunity, motivation, study, and effort. Designing highquality programs that help individuals reach their full potential and encourage creative productivity in adulthood often means starting the talent identification and development processes in early childhood, particularly for children from underserved populations. In this session, presenters introduce the talent development framework and discuss ways of identifying exceptional ability in young children. Additionally, they offer examples of school-based and supplemental interventions that promote early talent development.

3.3.2 Teachers' Views on Acceleration

Esra Kanli Istanbul University-Cerrahpasa Turkey

Acceleration consistently provides positive outcomes, yet people still have incorrect beliefs about it. Thus, it is important to reveal the views of teachers on acceleration in Turkey, which has limited opportunities for academic acceleration. In order to understand these views, an online survey was developed with 25 items from social, emotional, physical, and cognitive domains that were developed in accordance with related literature. The data derived from the study will be analyzed using appropriate statistical techniques, and implications for the gifted education will be discussed.

3.3.3 Supporting the Needs of All Students: Curriculum Compacting

Kelly Miller Alexandria City Public Schools United States

Stacy Hayden University of Connecticut United States

Research has shown that many gifted students spend their time in school with content they have already mastered. Differentiation seems difficult and teachers may be unsure of where to start. In this session, the presenters will share easy steps to implement compacting, along with personal examples of how they have used it in their classrooms in multiple content areas. Participants will walk away with a clear understanding of compacting, steps to implement it, and ideas for what to do with the compacted time.

3.3.4 Long-Term Effts of Grade Skipping: Spanning 70 Years

Annette Heinbokel Institut fuer Enrichment und Akzeleration 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 reported a lack of challenge again after skipping. Slightly more boys than girls had social problems. These problems could be addressed by being good at sports. A few more boys than girls profited socially from skipping. With very few exceptions, they went on to study at a university. 90% of the women and almost 80% of the men reported that they would skip again if circumstances were the same, a response reflecting the typically positive effects of acceleration.

3.3.5 Openness to Experience and Overexcitability: Same, Similar, or Different?

Shelagh Gallagher Engaged Education United States

Are overexcitabilities and Openness to Experience the same, similar, or different? This presentation will begin with a brief overview of the research, addressing where the two concepts may overlap in both theory and practice. Data collected from highly gifted middle school students will shed some light on how the two concepts might work in tandem.

3.3.6 Examining the Relationship Between Overexcitabilities and Protective Factors of High-Achieving Adolescents

Ahmed Mohamed United Arab Emirates University United Arab Emirates

The purpose of this research was to examine whether overexcitabilites can predict protective factors in a sample of 180 high-achieving adolescents. A related purpose was to examine gender differences. The students responded to the Overexcitabilities Ouestionnaire-II (OEQ-II). Classroom teachers rated students on protective factors using the Behavioral and Emotional Rating Scale-II (BERS-2). The hierarchical multiple regression analysis showed that students' emotional overexcitabilities were a significant predictor of their protective factors. Also, males' protective factors scores were significantly higher than females, while females' sensual and emotional overexctiabilities were significantly higher than males'.

3.3.7 Gifted Women's Qualitative Perspectives of Everyday Creativity, Self-Awareness, and the Educationof-Oneself from a Dabrowskian Perspective

Tina Harlow Private Practice United States

Elizabeth Ringlee The Champion Project United States

Susan Daniels*
California State University
United States

The research and personal experiences presented in this session represent findings from a qualitative study conducted with a group of gifted women who were engaged in a collective project of exploring various aspects of creativity and the self from a Dabrowskian perspective. Related concepts include self-education, the creative instinct, everyday creativity, self-awareness, and autopsychotherapy. Participants engaged in planned creative activity, reflection, and documentation on a daily basis through an individually chosen form of creative activity that involved handwork, written responses, photographs, and other visual records. Qualitative data, including participants' writings, photos, and other documents, were analyzed through a process of interpretive phenomenological description. The project spanned a seven-week period with daily and weekly documentation from project participants.

3.3.8 Survival Mode: Trauma-Informed Practices for Gifted Students

Emily Kircher-Morris Mind Matters Podcast United States

Trauma-informed practices are necessary to help support learners achieve their potential. In addition to major traumatic incidents, smaller events like divorce, poverty, or ongoing bullying can cause a trauma response. How does trauma impact gifted

individuals? What risk factors does being gifted carry with it related to trauma? This session will address these questions and how you can use the strengths of gifted students to manage the effects of trauma.

3.3.9 Giftedness and Trauma

Adam Laningham Deer Valley Unified School District United States

Many gifted children suffer their own kind of trauma as they cope with trying to fit into society and expectations placed on them. Having society, parents, teachers, or a school system not understand them and how they think and learn can have a profound impact on a child. Combining 18 years of experience working with gifted children and research with children coping with trauma, we developed several strategies adults should know when interacting with these unique children. This presentation will open your eyes to what our children are experiencing and also provide you with some strategies to help support them.

3.4.1 Empathy in Action: A Toolkit for the Gifted Classroom

Beth Hahn
Beth Hahn Educational Consulting,
LLC
United States

Diane Witt United States

Looking for ways to enhance your classroom climate? The Empathy in Action (EIA) Toolkit includes a PowerPoint that highlights ways in which you can enhance your classroom by fostering empathy in action in students. This EIAWorks Toolkit provides you with tools to shape and monitor growth in empathy skills for students in your classroom.

3.4.10 Shining a Spotlight of Possibilities on Technology for Gifted Learners

Shirley Farrell Troy University United States

Technology changes at an accelerated pace! Who has time to research what to use with gifted learners? Join this session to see the world of possibilities of apps and websites to enhance learning, create authentic products, and augment reality. See various levels of tools that increase in complexity and sophistication to challenge gifted learners. Learn how to integrate these cool free tools in lessons and leave with a well-stocked technology toolkit.

3.4.11 Professors' and Students' Perceptions of Information and Communication Technologies in Higher Education: Creativity and Motivation

Daniela Vilarinho-Rezende University of Brasilia / Centro Universitario Padre Anchieta Brazil

Denise Fleith University of Brasilia Brazil

The focus of this study was the role of information and communication technologies (ICT) in university classrooms. Nine professors were divided into three groups — those who used ICT creatively, those who made traditional use of ICT, and those who did not use ICT — and were interviewed. Additionally, 249 students completed instruments on their perceptions of creativity and the motivation to learn. Professors did not report a relationship between technology and creativity development. According to the students, ICT did not improve teaching practices for creativity or motivation. The creative

use of ICT was instead related to creative ways professors solved teaching difficulties.

3.4.12 Helping Anxious Students Build Confidence and Achievement

Sylvia Rimm Family Achievement Clinic United States

In combination, giftedness and successful achievement can cause children to feel intense competitive pressure to always succeed, a state known as perfectionism. Their sensitivity and intensity can permit students to experience great intellectual and emotional depths, but they can also result in anxiety that may cause them to avoid challenges. When highly sensitive adults respond intuitively to oversensitive children, they may unintentionally reinforce and increase children's anxiety. Tears and sadness may accidentally empower students to avoid the challenges that schools provide, increase their anxiety, and prevent high achievement. This session will give participants practical tools for diminishing anxieties and encouraging student positivity, confidence, and achievement.

3.4.13 Impact of Boredom and Belonging on Feelings of Anxiety and Depression Among Gifted Students

Tim Stambaugh Vanderbilt University Medical Center United States

Tamra Stambaugh Vanderbilt University United States

What do boredom and belonging have to do with friendships, perceived challenge, depression, and anxiety? How do students' perceptions of boredom and belonging relate to their mental health? This session explores the results of an empirical

study focused on relationships among these constructs. After a review of the literature and findings, recommendations for interventions for counselors, educators, and administrators will be shared.

3.4.14 Solving Underachievement: Eleven Steps to Strengthening Tenacity, Resilience, and Mental Perseverance

Elizabeth Ebers-Truesdale Lincoln Public Schools United States

Joan Jacobs Lincoln Public Schools United States

Underachievement profoundly affects gifted students, their performance in school, and opportunities in life. Presenters will discuss the importance of helping students develop goal-oriented attitudes and the positive role of productive failure. Participants will learn the role of long-term goals, motivation, enjoyment, self-confidence, and competence in creating a successful student and adult.

3.4.2 Gifted Students and the Exploration of Affects Through the Arts

Jennifer Bartee University of Denver United States

Performing and visual arts dwell within an emotional subtext, and within this subtext educators can provide resources to help students express and process their emotions. This session will address how arts can support the emotional needs of gifted students and investigate ways teachers can help their art and music students use art to connect with the complex emotions and thoughts experienced by gifted individuals

3.4.3 Scaffolding the Social Emotional Learning of Intellectually Gifted Children: The CASEL approach

Susen Smith University of NSW Australia

Gifted learners may have different academic and social-emotional needs than their same-age peers due to their myriad interrelated characteristics, complex behavioral responses, or their lack of educational provisions. This presentation will focus on providing strategies to scaffold the Social and Emotional Learning (SEL) processes of intellectually gifted students, underpinned by the CASEL framework. For example, high-quality relationships support resilience development, and the well-being, self-esteem, and friendships of gifted learners can be improved if they are scaffolded to interact with peers of the same interests in extra-curricular opportunities. SEL can prevent many negative influences of affective concerns, enrich social-emotional development, and/or scaffold academic achievement.

3.4.4 They're Gifted ALL the Time: Teaching Non-Academic Subjects to Gifted Children

Jill Wurman The Grayson School United States

Jessica Curtiss The Grayson School United States

Alexa Fusselbaugh The Grayson School United States

Stacey Angelillo The Grayson School United States Jared Scheetz
The Grayson School
United States

Many characteristics accompany gifted students' intellectual asynchrony, including intensity, advanced reasoning, and an innate sense of justice — but they can also include rigidity, risk-averseness, and low frustration tolerance. Heretofore. attention to these characteristics has focused on nurturing academic development. However, those traits are part of gifted students all the time and in every school setting, including those considered non-academic such as art, physical education, and music. How are these characteristics both burdens and assets in non-academic school environments? How can teachers of those subjects use an understanding of these characteristics to instruct, engage, and challenge their students?

3.4.5 From Invisible to Protagonist: Positive Initiatives that Impact the Lives of Gifted Kids in Brazil

Mariana Monteiro Ismart Brazil

Ismart Institute (Instituto Social para Motivar e Reconhecer Talentos) is a Brazilian non-profit organization that provides access to a quality education and opportunities for high potential, low-income students. Its programs help students reach their full professional potential through excellence, ethics, and productive creativity. Currently, Ismart supports 2,000 fellows in elementary schools, online programs, and universities. In a country where the gifted constitutes five percent of the population but only .15% of students are receiving gifted education services, Ismart is playing an important role in making sure that some of these talented students are reaching goals they had never even considered.

3.4.6 Where No One Waits to Learn: The Intersection of Professional Learning, Leadership, and Classroom Experience

Ande Noktes Midtown International School United States

Midtown International School (MIS) is Atlanta's home for globally-minded gifted learners in grades K-12. In its promise that no one waits to learn, the school has transformed gifted identification processes to reach traditionally un-identified populations and has redesigned the experience of being in school for students, teachers, school leaders, and parents. This presentation illustrates the path to fostering and leading environments where no one waits to learn and details MIS's brain-based, learner-centric approach which has impacted hundreds of gifted students and their families. The presentation includes resources and tools to implement these practices in the participants' environments.

3.4.7 Radical Acceleration: College for Content versus Sleepaway College

Molly Isaacs-McLeod Gifted Unlimited, LLC United States

Norma Hafenstein University of Denver United States

The research supports radical acceleration of students under certain circumstances. "Sleep away" college is no longer the only option. Because of technology and a willingness to think outside the box, there are many possibilities for students who need that next level of content for challenging and meaningful engagement. Learn more about the many options available as well as social-emotional and practical considerations in making challenging level content available when it is needed.

3.4.8 Ways to Enhance Creative Behavior Using Torrance's Indicators

Barbara Swicord NSGT/SIG United States

Creativity is highly valued in our world, yet creativity research has shown that creative expression decreases as students progress through school. Torrance's extensive research in the areas of assessing and developing creative thinking behaviors has produced a list of creative indicators that can assist educators in nurturing creative thinking throughout their curriculum. Using examples from social studies curriculum, the session will enable participants to experience ways that creative behaviors can be enhanced and engaged and to brainstorm ways to apply those behaviors to their teaching practice.

3.4.9 Examples of Best Practice Around the World as a Model for Change in Gifted Education

Eva Vondrakova Association for Talent and Giftedness (STaN) Czech Republic

There is lot of information about the education and upbringing of gifted children around the world. In practice, however, many serious problems exist for gifted and sensitive children. The current situation calls for change, which requires expertise, ethics, open international communication, energy, and persistence. HELP (High European Learning Potential) is a collaborative network of European practitioner organizations dedicated to enabling children with high learning potential to grow in confidence and achieve fulfillment so they can thrive.

3.5.1 Social Construction of Gifted Students in Federal Policies

Chad Phillips Henderson Community College United States

A social constructivist approach to public policy recognizes the role public perception and stories play in the public policy process. As gifted students remain a socially misunderstood group, the social constructivist perspective illustrates how these attitudes influence the gifted education policies for better or worse. Utilizing the National Defense Education Act (NDEA) of 1958 as a case study, the presentation highlights how public perceptions, academic reports, and the sociopolitical environment influenced the NDEA's gifted education policies. The presentation will thereby provide practitioners and researchers with strategies to leverage their knowledge in the public policy process.

3.5.10 The Role of School Trustees in Ensuring Gifted Education in Schools

John Curry Ottawa Catholic School Board Canada

This presentation will use the example of a major school board to show that trustees can play an important role in ensuring that a progressive program involving education for the gifted is implemented in board schools. Because of this role, gifted education advocates must never forget to ensure that trustees have an appreciation for gifted education or at least that trustees understand that gifted students will usually only excel if a challenging program is placed before them.

3.5.11 Professional Learning Experiences That Support Growth Stages

Connie Phelps Elementary Education/Early Childhood/Special Education United States

Margaret (Peggy) Thorpe Wichita Public Schools United States

Louise Reid RCMA Immokalee Community School United States

The session examines professional learning experiences that support growth stages from newbie to seasoned gifted facilitator. The presenters examine stages that include (a) identifying challenges; (b) prioritizing tasks; (c) finding lifelines; (d) gaining essential content, skills, and dispositions; (e) managing resources; (f) administering credible programs; and (g) honing a professional edge through professional development experiences. Drawing on several decades in both K-12 and higher education settings with hundreds of P-20 gifted facilitators, presenters shares insight, guidance, and best practices molded into a lifelong professional learning journey for diverse gifted facilitators and gifted programs of all shapes and sizes.

3.5.12 Providing Multiple Pathways to Creating a Poetry Portfolio through Process Differentiation

Kia Yin Jassie Teo Raffles Girls' School (Secondary) Singapore

This study, which was conducted in a Singapore school for high-ability learners, examined how the use of a differentiated instruction approach facilitated students' creative writing process in a grade eight poetry portfolio task where a menu of writing prompts presented multiple pathways to poetry writing. Quantitative analysis of the writing prompts chosen by students and qualitative analysis of students' artifacts and focus group discussion responses showed that the approach of process differentiation enabled students to (i) maximize their learning capacities, (ii) experience success, and (iii) connect emotionally with the subject matter of their poems.

3.5.13 Research and Teaching Practice of the Original English Book Instruction for the Intellectually Gifted Children

Zhihui Wang Beijing No. 8 High School China

In recent years, many teachers in Chinese elementary and middle schools have attempted to adopt original English books in their classroom. However, some limitations still exist in the process of teaching original English books. The current study, therefore, aims to do some research in the following aspects: 1. Enrich the variety of reading materials, not restricted to literature only; 2. Apart from the in-class original English book instruction, offer students scientific reading guidance for students' afterclass reading; 3. Evaluate the teaching effect under the theoretical framework of English reading literacy. The current study can be used to develop an original English book instruction curriculum for the intellectually gifted children at Beijing No. 8 Middle School that will enhance students' reading literacy in English.

3.5.14 Pedagogical Approaches: A Study of Gifted Readers in the Primary Classroom in China and Scotland

Tingzhao Zhang South China Normal University United Kingdom Gifted readers are a group of children who can demonstrate advanced and high abilities in reading. Appropriate reading materials and differentiated instructions should be provided to support their development. However, there is a paucity of research looking at how teachers meet the instructional needs of gifted readers. This presentation, based on the data of my PhD study, contextualizes the education of gifted readers in two socio-cultural contexts. China and Scotland. The comparison of these countries will illuminate the influence of socio-cultural contexts in gifted education.

3.5.2 Bibliotherapy in the Classroom: Using Picture Books to Support Effective Decision-Making for Secondary Students

Elizabeth Ebers-Truesdale Lincoln Public Schools United States

Breanna Prochnow Lincoln Public Schools United States

Joan Jacobs Lincoln Public Schools United States

Through identification with an appropriate literary model, a student can gain the ability to respect and accept others. This session will provide participants an understanding of the issues specific to the gifted population, titles that resonate with students, and suggestions for questioning techniques to use with them to effect positive decision-making and an understanding of the needs of others.

3.5.3 What Can South Africa Learn from the Red Dot on the Map? A Comparative Study

Annari Milne CUT South Africa Mike Mhlolo CUT South Africa

South African learners continue to perform dismally in international studies, bringing into question the quality of its education. Meanwhile Singaporean students are top scorers in these competitions. Few comparative studies between different nations and Singapore have focused their comparisons on gifted education. This paper reports on a comparative study between Singapore and South Africa education systems. Our analysis is shaped by three frames: (a) political context, (b) curriculum structure, and (c) loose coupling. The results show that both countries had similar challenges at the point of independence from colonial rule; however, they responded differently to those challenges. The lessons of Singapore are lessons that South Africa can learn.

3.5.4 PISA GOLD – A Wealth of Potential Evidence Advocating Policy For Gifted and Talented Education

Kathleen Stone INSTEAD International, LLC United States

The Organization for Economic Co-operation and Development's (OECD) Program for International Student Assessment (PISA) is a gold mine of international educational data waiting to be mined for valuable research evidence. PISA can support policy initiatives to advocate for gifted and talented education. Fourteen PISA variables will be analyzed by descriptive statistics generated to compare samples from the 72-country 2015 PISA test cycle. Topics relevant to high achievement include top performers in science, math, and reading; excellence gaps; gender differences; content and cognitive sub-scales; proficiency levels; socioeconomic factors; early childhood; opportunities to learn;

grouping; immigrant students; financial literacy; problem-solving; and change over time.

3.5.5 Adaptation and Application of Thinking Creatively in Action and Movement in Hong Kong and Macao

Tin Wai Chiang Gaterac Limited Hong Kong

Versions of the study of Thinking Creatively in Action and Movement (TCAM) were conducted in Hong Kong and Macao. In view of the literature, certain revisions on the original TCAM were made. In addition, demographic data were collected from the samples to establish the validity of both studies. The results showed that the interscorer reliability. test-retest reliability, and criterionrelated reliability were acceptable for both studies. The positive effect of out-of-school provisions on the TCAM scores signaled the ineffectiveness of regular kindergarten education. Exploratory research on kindergarten's creative curriculum was conducted, and the results showed a growth in children's overall creativity.

3.5.6 Handwriting and Spelling: Do We Need to Teach the Foundations of Writing in Gifted Education?

Miriam Ramzy University of Calgary Canada

Writing by hand continues to be the most common method students use to communicate their knowledge in school, and in early elementary classrooms, a large percentage of the day involves written tasks. This session will examine whether or not instruction in the foundations of writing, handwriting, and spelling, have a role in young gifted children's education. This presentation will disseminate the chief findings from the presenter's dissertation, which looked

at how grade-one gifted children's writing changed after one year of explicit and systematic instruction in handwriting and spelling. The results from this study have the potential to inform classroom practice, pedagogy, and policy.

3.5.7 The Power of Parents in Entering Primary School Levels: A Good Practice

Ingeborg Veldman- de Jonge Conexus Netherlands

In the Netherlands, most schools have age-based groups where every child starts at the first level. In Nijmegen, schools work together with parents, who fill in a norm-based-entry characteristics questionnaire about cognitive and social aspects of their child at 3.8 years, just before attending school. Schools then let the child start at a level that fits the questionnaire results. At primary school "Het Talent," there are no age-based groups, and children can study every subject at their own pace and level. The starting point is the questionnaire their parents provided.

3.5.8 Relationship Between Anti-Intellectualism and Attitudes Toward Gifted Education Among Emerging School Leaders

Meredith Austin Humble ISD United States

Schools in the United States vow to have an academic mission; however, many schools clearly do not cultivate intellect. The ambivalence towards the high ability student often stems from leadership's anti-intellectual attitudes paired with a lack of support toward gifted education. This quantitative, correlational study examined the relationship between the anti-intellectual attitudes among emerging school leaders in

Houston, Texas, and their attitudes regarding gifted education. Two instruments independently measured anti-intellectual views and support for gifted education, revealing relationships between the subscales and participant demographics.

3.5.9 Primary School Principals' Support Toward Teaching and Learning of Gifted Learners in Inclusive Classrooms

Motshidisi Gertrude van Wyk Central University of Technology South Africa

Michael Kainose Mhlolo Central University of Technology South Africa

In South Africa, gifted learners are currently found in regular classrooms. Good principals run efficient and disciplined schools, support their teachers, involve parents in the education of their children, and strive for their schools' outstanding performance. This study examined the principals' support of the teaching and learning of mathematically gifted learners. Twenty principals from selected primary schools were interviewed, and content analysis was used for their responses. The results show that principals support their teachers through conferences and departmental workshops. However, when enquiring further, we found that gifted learners' needs were not addressed but rather neglected in regular classrooms.

3.6.1 Bibliotherapy By the Campfire: Building Social & Emotional Skills Through Picture Books

Tracy Alley Madeira City School District United States

Bibliotherapy (book therapy) can be an effective gateway to connect children to book characters who may be experiencing the same types of emotional and social situations that they are. The presenter uses a "campfire setting" in her classroom to encourage a sense of community through storytelling and discussion. The cardboard campfire symbolizes the way our ancestors may have shared stories, developed empathy, and built relationships. The presenter will share her "campfire" model as well as a bibliotherapy model developed by Dr. Caroline Shrodes and others. The model is as follows: identification, catharsis, insight, universalization, and integration. A wide variety of children's picture books for children preschool through fifth grade will be showcased, and a list of resources will be given to attendees.

3.6.10 Coaching Creative, High-Potential Drop-Outs in Their Search for Meaning

Desirée Houkema National Talent Centre of the Netherlands (NTCN) Netherlands

Albert Kaput Slim Begeleiden Netherlands

Searching for meaning is an issue that occupies many creative, talented, and gifted children and adults. They may struggle to find meaning in their existence, especially when they get stuck or experience a complete mismatch between themselves and their educational environment, resulting in their dropping out of school. Though challenging, it is important for them to discover how to invest in their own development in a way that fits them, given the opportunities available in their specific situation. A processoriented model of talent development is used to coach these possible drop-outs so that they will gain the needed selfknowledge to actualize their potential.

3.6.11 SIP: The Systemic Intervention Protocol to Support Talent Development for Underachieving Gifted Students

Eleonoor van Gerven Slim! Educatief Netherlands

In this presentation, we shift from the notion of underachievement to the notion of "under learning." "Under learning" refers to the student's learning process, and we use a systemic approach to analyze this process. The student is part of an ecological system. How can we, from an educational point of view optimize the student's ecological system? What has to be done to tune in to the student's educational needs, and how do we organize meaningful educational responses? The SIP (Systemic Intervention Protocol) is a tool that helps teachers to match the student, curriculum, and ecological conditions for learning.

3.6.12 Spirituality and Sex: Our Tales of Positive Disintegration

Joi Lin University of Denver United States

Hear the historical struggles and current successes of two gifted women of color on paths of spiritual and sexual moral development who are each ever-striving for authenticity and self-actualization. Personal stories discussing overexcitabilities, religion, spirituality, sexuality, selfunderstanding, and acceptance will be structured and shared in alignment with Dabrowski's Theory of Positive Disintegration. This presentation provides a brief introduction to our work and speaks of the impact of religious purity culture on gifted women and explores how social, physical, and spiritual experiences may serve as a catalyst for the disintegration and development of a gifted individual.

3.6.13 Social and Emotional Gifted Characteristics and Over-Excitabilities in Students and in Teachers

Norma Hafenstein University of Denver United States

Intensity is recognized as a pervasive psychosocial characteristic of gifted learners (Daniels & Piechowski, 2008; Webb, 2013; Delisle & Galbraith, 2002). Teachers are taught to recognize gifted characteristics including those identified as "over-excitabilities" (Dabrowski & Piechowski, 1977) and seen as intensity, perfectionism, sensitivity, and similar traits. As pre-service teachers learn these psychosocial characteristics and related student needs, they may experience self-recognition. This alignment may contribute to the pre-service teachers' positive impact on gifted students. Results of informal data collection and anecdotal examples highlight this developing concept. Instructional activities, recommendations for the field, and suggestions for further research will be shared.

3.6.14 The Metaphorical Masks of Dabrowski's Overexcitabilities

Susan Nikakis Catholic Education Melbourne Australia

Carmel Meehan Australia

We will suggest that many gifted people have high levels of intensity and sensitivity and seem to use metaphorical masks to protect themselves from possible rejection. Strategies to empower gifted people to remove their masks will be discussed as together we delve into the truths and urban myths generated by the multi-levels of understandings and manifestations of the five forms of Dabrowski's overexcitabilities which

can be described as an abundance of physical, sensual, creative, intellectual, and emotional energy, a description that covers a wide range of diversely gifted people.

3.6.2 Diverse Social and Emotional Learning Booklist from Around the World for Gifted Students

Rhoda Myra Garces-Bacsal National Institute of Education, Nanyang Technological University Singapore

This presentation is intended to build the capacity of educators to know about multicultural picturebooks and their significance in helping develop the social and emotional learning competencies of high ability learners. There is significant empirical evidence indicating how multicultural books are able to develop empathy among children (Bal & Veltkamp, 2013), provide the foundational framework needed to promote a greater appreciation of diversity, and the building of compassion (Harper, 2016). Literature has likewise been proven to be an effective tool to address high ability learners' socio-emotional concerns (Abellán-Pagnani & Hébert, 2013), particularly among gifted students who are considered double minorities (gifted and of a different race and/or linguistic background and/ or of low income status) (Stambaugh & Ford, 2015). In this presentation, highly diverse text-sets from around the world will be shared to help gifted students develop empathy, and a global understanding of their identities and place in the world.

3.6.3 Great Books for Gifted Students

Lynette Breedlove The Gatton Academy of Mathematics and Science United States Gifted children are often voracious readers. To prepare gifted children for challenges they are likely to face, teachers and parents can help them choose books that feature gifted and talented characters. We'll pair the social emotional characteristics of gifted kids with books that relate to them. Everything from picture books to adult novels will be discussed. Participants will leave the presentation with a few new favorite books to share with their gifted children.

3.6.5 In Search of an Inspirational School Principal: A Dabrowskian Perspective

Joe Frank Westmount Charter School Canada

Janneke Frank Gifted Endeavors Canada

Peter Khu Westmount Charter School Society Canada

David Holland Westmount Charter School Canada

Audrey Smith Westmount Charter School Canada

This session describes the search for an inspirational principal for a high performing, publicly funded Canadian Charter School. This school strives first to know and honor who students are before helping them become the best they can be; achievement is the byproduct. A school culture that honors the integration of personal growth and talent development requires a complex, humanistic, child-centered approach to gifted education. Dabrowski's Theory of Positive Disintegration informed the six steps of the search: consulting stakeholders; designing

hiring processes; differentiating candidates; and selecting, integrating, and mentoring the new principal. This symposium may generate recommendations for district and state policy makers.

3.6.6 Gifted and Regular Pupils' Views of Characteristics of Good Primary School Teachers

Anouke Bakx Radboud University Netherlands

Ton van Houtert Fontys FHKE Netherlands

Maartje van den Brand OZT and Plein013 Netherlands

Lisette Hornstra Utrecht University Netherlands

In our study we compared gifted pupils' views and regular-ability pupils' views regarding the characteristics of good teachers in primary education. We used an open questionnaire in which pupils could write and associate about a good teacher (what is he like, what does she do, etc.). In total 891 pupils (463 gifted) completed the questionnaire. Characteristics referring to "relatedness" were found most in both groups of pupils (40%), as well as characteristics referring to the need for competence (almost 40%). Autonomyrelated characteristics were mentioned least (10%). Also, interesting differences were found between the two groups.

3.6.7 Preparing Teachers to Respond Effectively to Gifted Students in Classrooms: Longitudinal Case Study Results

Leonie Kronborg Monash University Australia Margaret Plunkett Federation University Australia

This presentation outlines the perceptions of almost 600 preservice teachers (PSTs) at a major Australian university who over a seven-year period completed an elective unit in gifted education during their initial teacher education program. Data were collected from participants through pre and post surveys to determine their attitudes towards teaching gifted students. Findings suggest that completion of the elective was a significant contributor to the development of more positive attitudes towards giftedness among PSTs, who also indicated a greater understanding of provisions and practices that have an evidence base as appropriate for teaching gifted students.

3.6.8 Rethinking Social Competencies of Highly Intelligent Students

Wendi Schirvar United States

Social competence is vital for healthy development. Social competence involves both the absence of negative behaviors and the presence of positive behaviors; it also encompasses the verbal and nonverbal skills of "pragmatic language." Even if able to use complex sentences, an individual who fails to master social language skills can suffer from impairments. Most studies of the psychological characteristics of students with high intelligence have not demonstrated clinical symptoms beyond those of the general population, yet the absence of clinical symptoms should not be equated with possessing social competence. This study highlights pragmatics as the missing piece in understanding social development of students with high intelligence.

3.6.9 Developing Essential Skills such as Self-Insight, Self-Management and Creative Thinking

Nora Steenbergen-Penterman SLO: The Netherlands Institute for Curriculum Development Netherlands

In this session we focus on developing the important skills of self-insight, self-management, motivation, creative thinking, analytical thinking, critical thinking, ICT skills, communication skills, and working together in education. We want to support the process of developing these skills; therefore, we have created a tool that can be used to guide and counsel gifted children and their teachers/supervisors to set and achieve goals, execute plans, choose an approach, and follow their development. The tool, "Development Goals & Skills," has been extensively evaluated, is effective, and is used by numerous students.

3.7.1 You Don't Sound Like Sheldon: A College Course in Gifted Popular Culture

Richard Mehrenberg Millersville University United States

Charlton Wolfgang Millersville University United States

This presentation examines a new college course titled The Gifted in Popular Culture. The course is divided into five modules — a.) definitions and identification, b.) underrepresented populations, c.) educational needs, d.) social needs, and e.) the gifted adult — and provides a fundamental overview of the gifted through the lens of popular culture. By comparing TV shows and films such as The Big Bang Theory, Revenge of the Nerds, and Sherlock Holmes to best practices, students get a better understanding of the true educational and social needs of

the gifted and how entertainment often exploits this population for the sake of entertainment.

3.7.8 Social-Emotional Skills Supporting Gifted Development: Keys to Unlocking Potential

Megan Parker Peters Lipscomb University United States

Emily Mofield Lipscomb University United States

Social-emotional skills are often the missing ingredients needed to facilitate optimal achievement in gifted students. Presenters will share lesson ideas for promoting social-emotional skills including guiding students to take intellectual risks, use self-regulation strategies, develop self-awareness of how emotions can paralyze or catalyze pursuits towards achievement, use problem-solving to cope with setbacks, and reflect and appropriately respond to criticism. Participants will leave with engaging lesson ideas that explicitly teach important social-emotional skills and connect to curriculum content. The pairing of social-emotional learning and appropriate curriculum can elevate gifted students to reach unknown heights.

3.8.1 On Identifying as a Gifted Adult: An International Focus Group Study

Maggie Brown University of Auckland New Zealand

This new, multinational, exploratory research consists of five online focus groups with adults who self-identify as being gifted. The overall purpose of this research is to contribute the voice of gifted adults to key conversations emerging within the study of that population, including how these adults experience their giftedness and

what they believe needs to be better understood. The study contributes rich and valuable information to the research field by exploring the phenomenon of giftedness from the perspective of adults who live it. The researcher will present key preliminary findings that will be of interest to counselors, parents, gifted adults, and educators.

3.8.10 Do Honors Students Study More? Exploring Patterns of Time Use for Honors College Students

Angie Miller Indiana University Bloomington United States

This study explored time use on a variety of activities for honors and non-honors students with data from the National Survey of Student Engagement (NSSE). Analyzing survey responses from 8,672 students at 27 different U.S. colleges and universities, researchers investigated how much time students spent preparing for class, participating in co-curricular activities, working for pay on and off campus, doing community service/volunteer work, and relaxing/socializing. A series of regression models suggest that honors college participation is a significant positive predictor of time spent on co-curricular activities, working on campus, and community service, even after controlling for demographic and institutional characteristics.

3.8.11 The Gap Between Complex Models of Giftedness and the Identification of Gifted Clients in Counseling

Tillmann Grüneberg University of Leipzig Germany

Evaluating the counselling offerings for gifted students is a fruitful but often neglected field of study. After a short overview on findings about clientele and requests in Germany, a specific issue will be raised: The conflict between complex theoretical models of giftedness (e.g. DMGT of Gagné, Munich Model of Giftedness of Heller) and the practice of identification through a focus on "simple" measurements of intelligence. This conflict will be illustrated and substantiated by a study of counselors in Germany (n=31-64), where the chosen preferred model of closed question differs widely from the identification concept of open question and qualitative content analysis.

3.8.5 Self-Regulated Learning Strategies for Twice Exceptional Learners

Christian Fischer University of Münster Germany

Christiane Fischer-Ontrup University of Muenster Germany

The presentation focuses on special strategy-oriented talent support programs for twice-exceptional (2e) learners, including both minority and non-minority students. Based on the gifted learners' special intellectual and social-emotional needs, these programs include effective learning strategies like self-regulated learning combined with intensive personal mentoring. These programs improve protective and resilience factors for 2e gifted and talented learners and encourage them to transform their high potential into excellent performance.

3.8.6 UDL for Gifted and 2e Learners: Integrating Special Education and Gifted Education Strategies

Claire Hughes College of Coastal Georgia United States

The goal of Universal Design for Learning (UDL) is to "make learning accessible for all students" (Novak, 2019) by removing barriers through proactive curriculum design. UDL emphasizes that all children should be learning and moving forward. While UDL is often discussed as a concept for students with disabilities, advanced, gifted, and twice-exceptional (2e) children's needs often go unmet. This session will provide a set of instructional decisions that lead to strategies and ideas that can allow a teacher to build in enriching. accelerated concepts while providing the task-analysis and structured learning experiences that are needed.

3.8.7 Bibliotherapy with Twice-Exceptional Learners: Using Picture Books to Address Affective Issues

Patti Wood Samford University United States

Twice-exceptional learners are confronted daily with issues that can be painfully difficult. Bibliotherapy is an effective strategy for helping them deal with complex situations encountered in school, particularly social and emotional issues. This session offers background in bibliotherapy and its practical application using picture books as the vehicle for discussion around issues and concerns such as bullying, stress over feeling different, and coping with academic problems. Attendees will receive book lists and bibliotherapy lessons to address developmental challenges of their twice-exceptional students.

3.8.8 Sports Talents Psychosocial Development: Periodized Psychological Assessment Contributions

Luis Ferreira University of Brasilia Portugal Denise Fleith University of Brasilia Brazil

Fabrizio Veloso Clinical Psychologist in São Paulo Brazil

Talent studies depict variables that directly interact with the development of abilities, but few have analyzed the application of those variables on sports. This study explored the effects of a periodized psychological skills training program on two Olympic champions. The study investigated athlete's perceptions through discourse analyses that sought to understand the psychosocial impact of psychological interventions. The results highlight psychosocial development during an athlete's life trajectories and the potential effects of periodized interventions usage on the development of technical, tactical, and emotional abilities; the conclusions reinforce the belief that such programs contribute to the success of eminent athletes and gifted individuals in other domains.

3.8.9 Mathematics Talent Search: Differences in Mathematical Giftedness in Girls and Boys

Nina Krüger University of Hamburg Germany

Sören Fiedler Helmut-Schmidt-University Hamburg Germany

A mathematics talent search among sixth graders gives them the possibility of qualifying for a program called The Hamburg Model. It has been organized at the University of Hamburg every June since 1983 to identify highly gifted children in mathematics. This talent search offers interesting possibilities for research as it provides a 30-plus years sample of highly talented children. Some results exploring gender differences in

mathematical performance measuring mathematical creativity and knowledge will be presented.

3.9.1 A Thirty-year Study on Identification Procedures and Program Options for Nebraska Gifted Middle School Students

Patricia Hoehner University of Nebraska Kearney United States

Scott Fredrickson University of Nebraska Kearney United States

Dick Meyer University of Nebraska Kearney United States

Jude Matyo-Cepero University of Nebraska Kearney United States

This study reexamined the Nebraska schools surveyed in 1989 regarding their procedures for identification of and service for gifted middle school/junior high school students. The 2016 survey used a sample from respondents to the 1989 survey in order to determine the effects of the No Child Left Behind Act and budget cuts. 30 adults ages 25-65 were included in this study. This online survey used questions unchanged from the original 1990 survey.

3.9.10 Museum Studies for the Gifted: Making Art More Inclusive and Appealing for the Talented

Delanie Almazan Anaya CEDAT Talent Attention Center / Harvard University United States

This project describes the inclusion process of twice-exceptional gifted students diagnosed with Attention Deficit Disorder through joint work between Mexican art museums actions and special needs centers. This seven-

month qualitative study focused on the application of art teaching as an inclusive strategy from several participants' perspectives (students, professors, museum curators, and art directors). These findings resulted in a guide that describes the specific steps for inclusive audience engagement and catering to students with special needs. In addition, it analyzed the further actions other non-art museums can provide for accessible learning environments that accommodate gifted children.

3.9.11 Developing Expertise by Modeling the Thinking of a Literary Analyst and Differentiating Instruction

Tamra Stambaugh Vanderbilt University United States

Emily Mofield Lipscomb University United States

The Literary Analysis Model, developed with input from experts and field tested in gifted classrooms, is used to guide students through analyzing how an author uses literary techniques to develop meaning within a work. The model allows students to see connections between multiple literary elements. For example, students can understand how setting impacts conflict, how conflict reveals character motives and values, how characterization impacts theme, and how an author's use of techniques influences the tone. In this session presenters will discuss how models vetted by content experts support differentiation in the literary classroom and promote complexity and critical thinking.

3.9.12 Wired from Birth: Technology and the Gifted Adolescent Brain

Jill Wurman The Grayson School United States Melissa Bilash The Grayson School United States

While many adults are confident users of technology, we are also keenly aware that we are not digital natives, as our children are. This gap — between knowing how to use tech and growing up tech-fluent in a plugged-in world — is the location of our discomfort and worry about what all that screen time is doing to children, especially if they are gifted. We will cover recent research describing the cognitive and social-emotional impacts of swimming around in that technology and offer both concrete suggestions and resources adults can use to help them bridge the gap.

3.9.13 Gifted + 2E + Robotics = True Peers

Molly Isaacs-McLeod Gifted Unlimited, LLC United States

Gifted children thrive when they connect with "true peers." Robotics provides an opportunity for likeminded students, of similar interest and ability levels to work collaboratively. Through this interaction a sense of belonging emerges, teambuilding skills develop, and friendships are forged. Given a learning and working environment calling for hands on ability, spatial reasoning, and critical thinking, students whose twice-exceptionalities may have overshadowed their true abilities (sometimes having flown under the radar of identification for years!) can truly shine. We will discuss key elements in designing a program that successfully supports true peer relationships and meaningful inclusion of twice-exceptional students.

3.9.14 Using 3D Printing to Engage Gifted Learners

Antonia (Toni) Szymanski Western Kentucky University United States Andrea Paganelli Western Kentucky University United States

Janet Tassell Western Kentucky University United States

This presentation reports on an investigation of the influence of Prototype Problem Solving Activities using 3D printing on gifted student engagement and understanding of mathematics. Designing and creating prototypes provides teachers new teaching tools to bring mathematics and engineering to life. It uses a mixed methods approach to understand the perceptions of teachers prior to implementing the lessons and changes in students' engagement and persistence throughout the process. This session shares lesson plans and findings on how to increase gifted students' creativity, engagement, and understanding. It also highlights the perceptions of teachers and how to support them as they explore new ways of teaching.

3.9.2 Science Olympiads: Talents Search and Nurturance

Amaal Alhazzaa
King Abdulaziz and His Companions
Foundation for Giftedness and
Creativity "Mawhiba"
Saudi Arabia

Since 2011, more than 97,000 students have been identified as gifted students in Saudi Arabia. An open system is being implemented for third, sixth, & ninth grades in talent searches. Students are placed based on their results in various educational alternatives including the International Scientific Olympiads. Mawhiba studied the effect of participation in the International Olympiads (IO) on the students' Standard Achievement Admission Test (SAAT) to determine the relationship between participants' perceptions of IO and SAAT. The

findings indicated that the participants gained a higher level of academic achievement than students who did not participate. It also showed a positive effect in providing a competitive environment.

3.9.3 Validation of SCAT from CTY in Catalan and Spanish Language from Primary to High Schoolers

Carla Duran Garcia Blanquerna University Spain

Xavier Berché Cruz Fundació Privada Javier Berché Spain

The following study validates the School and College Ability Test (SCAT) series III in above-level assessment to measure students' extended mathematical (quantitative) and verbal reasoning abilities in the Spanish and Catalan languages at three levels of difficulty and in two different forms. The analysis focuses on a sample of 370 schoolers from Catalonia, Valencia, and Madrid and in elementary (years 1-5), intermediate (year six to the second course in secondary school) and advanced (from the third course in secondary school to the second course of "bachillerato"). The results were triangulated for the classic factorial techniques and nonparametric methods based on item response theory. This study assessed the possibility to use and validate the SCAT-series III to estimate high ability in students according to their extended mathematical and verbal results in both languages.

3.9.4 How is Need for Cognition Related to School Achievement in Particularly Talented Young People?

Sören Fiedler Helmut-Schmidt-University Hamburg Germany Nina Krüger University of Hamburg Germany

Mieke Johannsen University of Hamburg Germany

A mathematics talent search among sixth graders gives them the possibility of qualifying for a program called The Hamburg Model. It has been organized at the University of Hamburg every June since 1983 to identify highly gifted children in mathematics. This talent search offers interesting possibilities for research as it provides a 30-plus years sample of highly talented children. Some results will be presented exploring the correlation between the need for cognition and mathematical performances measuring mathematical creativity and knowledge.

3.9.8 Applying Methods for Helping Gifted Students Learn Native Language More Effectively

Li Weng Beijing No. 8 High School China

Often for gifted students, accomplishing complex quantitative analysis is easy, but understanding literature is hard. In this research project, methods for solving the above difficulty were applied in literature courses. With poems/lyrics and novels, instructors can inspire the thoughts of intelligent-gifted students about literature. To help students overcome the restriction of logical analysis, abstracting contents is a comprehensive way to foster the rigorous logic of students, and analyzing the imperfectness of famous works is a reliable way to help students. Currently, the above strategies are applied in teaching writing and reading in Chinese. These methods might also be helpful for foreign students who learn Chinese.

3.9.9 Integrating Art and the Smithsonian Learning Lab in the Gifted Language Arts Classroom

Yolanda Toni Fairview South School United States

As STEM has now incorporated the Arts to become STEAM, art should become an essential element of every classroom curriculum. The Smithsonian Learning Lab is a free online tool that allows users to create interactive collections using resources from all the Smithsonian museums. Come and see practical applications that allow teachers to combine various forms of media into catalysts inspiring careful observation, thoughtful discussion, and creative writing in the gifted language arts classroom. Although the focus of this course is on the arts and humanities, teachers from other subject areas will find this resource applicable to their classrooms as well

4.1.1 Creativity and Problem-Based Learning: Tips and Tricks for Teachers

Anne M. Roberts University of Connecticut United States

Lindsay Ellis Lee University of North Texas United States

Problem-based learning (PBL) has grown in popularity in K-12 education. PBL plays a role in students' creativity development, including the group-learning context (Zhou et al., 2010). The creative process aligns easily with the PBL framework, creating opportunities for teachers to integrate authentic experiences and construct conducive learning environments. Based on a review of research and our experiences as a gifted education specialist and a high school Advanced Placement teacher, we will share tools

and activities for teachers to foster creativity in PBL environments.

4.1.10 Strategies for Supporting Students Who are 2E

Charlton Wolfgang Millersville University United States

Richard Mehrenberg Millersville University United States

This presentation will focus on the research and practical strategies for meeting the needs of students with twice-exceptionalities (2e) in the regular education classroom. Although research on 2e students has increased in recent decades, it has not necessarily translated into their needs being met in schools in the United States. There continues to be a lack of consensus on both the needs and the characteristics of 2e students as well as limited understanding of the most effective strategies for teaching these students. This presentation will identify evidence-based strategies that teachers and administrators should consider when supporting and instructing 2e students. Additionally, this presentation will share the results of a recent study co-authored by the lead presenter that examined how effectively colleges and universities in a large state in the United States known for teacher preparation is providing training for pre-service teachers for meeting the needs of 2e students.

4.1.11 The Adaptive Think-Aloud Framework: Is it Useful in the Preliminary Stage of Identifying Twice-Exceptionality?

MaryAnne Haines Australia

Linley Cornish University of New England Australia Michelle Bannister-Tyrrell* Recently retired from University of New England Australia

Teachers in primary/elementary schools often have limited access to manageable strategies in the preliminary stage of identifying twice-exceptional children. As part of a research project, the Adaptive Think-Aloud Framework (ATAF) was developed and used in trials for comparison with the findings of the Teacher Checklist Questionnaire, which was also developed as an exploratory tool. Using mixed methods research and a case study design, the ATAF used a think-aloud procedure with six selected students to obtain data about their reading skills and metacognitive and critical thinking. Findings suggest that this framework shows considerable promise for use in teachers' early investigations.

4.1.2 Creativity: A Universal Language for Global Classrooms

Patti Drapeau Maine Department of Education United States

There is a universal connection between language and creativity. Different countries may emphasize receptive language over productive language. These differences inform instruction and limit or extend opportunities for gifted learners in the classroom. The presenter translates research -based best practices along with neuroscience findings into a pedagogical framework that articulates a step-by-step "how to" shift instructional practice to one that encourages creativity, creative problem solving and innovation. This session will address the universality of creativity, creativity rationale, creativity research, creativity and standards and creativity and practical applications for the classroom, school or district.

4.1.3 The Paradox of Creativity and Rigor

Sylvia Rimm Family Achievement Clinic United States

The essence of creative ideation involves playing around with ideas, crossing boundaries, and thinking out of the box. In contrast, total creative products also require organization and rigor. In the real world, creative production is often accomplished by a collaborative team that combines both. In the classroom, highly creative students often underachieve and are crippled by their avoidance of rigor. In contrast, perfectionistic, high-achieving students often fear moving out of the box. This presentation will focus on practical strategies for teaching students how to manage the paradox and skills of both creativity and rigor so they can be productively creative.

4.1.4 Collaborative Songwriting as an Educational Activity for the Gifted Learner

Celia Whitler Grassland Elementary School / Nashville area United States

It all starts with a story. Living in Nashville, Celia Whitler has been fortunate to collaborate/co-write with the best of the best songwriters and to learn strategies, skills, and best practices for creating from a blank page. Celia is currently teaching elementary school and applying the tools she learned from songwriting to help students tell their stories. A song is a perfect vehicle for student expression and empowerment. This presentation will talk about strategies, skills, and best practices for creating an environment for student success.

4.1.5 The Character Education of Gifted and Talented Children

Kubra Kirca Demirbaga Durham University United Kingdom

This study aims to investigate how teachers who work with gifted and talented children evaluate character education and interpret and implement values education for gifted and talented children in Turkey. The project data will create a needs-based intervention based on the character education approach of Aristotle. This intervention is aimed at supporting the whole personal development of gifted and talented children, the first time such a focus has been taken by the BILSEMs (the Science and Art Centers) in Turkey.

4.1.6 Gifted Characteristics and Satisfaction with Life: Mediating and Moderating Effects of General Self-Efficacy

Daniel Shek The Hong Kong Polytechnic University Hong Kong

Alan Cheung Department of Educational Administration & Policy Hong Kong

Anna Hui Department of Social & Behavioural Sciences Hong Kong

Huimin Liu Jockey Club "Giftedness Into Flourishing Talents" Project Hong Kong

Xiaoyan Sun Program for the Gifted and Talented Hong Kong This study examined a newly developed personality construct, gifted characteristics (GC), and its relationship with satisfaction with life (SWL), while simultaneously investigating general self-efficacy as a mediating or moderating mechanism underlying the relationship between these two constructs. A total of 556 secondary school students in Hong Kong participated in the study. They were asked to complete a battery of questionnaires containing the related measures. Regression analyses demonstrated that general self-efficacy partially mediated the relationship between gifted characteristics and satisfaction with life. However, the interaction effect between gifted characteristics and general self-efficacy on satisfaction with life was not significant.

4.1.7 Gifted Student Hopefulness: A Goal Directed Strengths Approach for Student Success and Personal Well-Being

Janette Boazman University of Dallas United States

When conceptualized as an active construct, hope becomes a framework that supports goal achievement and becomes a contributor to personal and psychological well-being. This session presents the construct of hope as goal-directed thought processes. Additionally, the researcher presents findings from a completed study on the contribution of hopefulness in honors college students and early college entrants to overall personal well-being. The study used the Adult Dispositional Hope Scale to measure hopefulness and Personal Well-being Index-Adult to measure levels of personal wellbeing. Results suggest goal-directed hopefulness is important to gifted college student development and their personal well-being.

4.1.8 Cycle for Success: Parenting and Teaching 2e

Julie Skolnick With Understanding Comes Calm, LLC United States

So often parents and teachers find their 2e students stuck in a downward spiral. The antidote The three-step Cycle for Success: 1. A deep understanding of the 2e experience, 2. Durable strategies, and 3. Collaborative advocacy training. Using the trademarked acronym P-R-A-I-S-E, standing for Personal Connection, Reframe, Anticipate, Incentives and Choice, Sense of Humor and Exercise, this presentation leaves parents and educators equipped to proactively rather than reactively address their 2e students' challenges.

4.1.9 Finding Our Fractaled Children: Lessons Learned From Fractals in Nature: Casting A Wider Net

Linda Collins
Park Hill School District
United States

William Collins Park Hill School District United States

How can school personnel cast a wider net, finding fractaled (2e) children who are "hiding" in plain sight? Fractals have always been present, but Benoit Mandelbrot is credited for elucidating this remarkable phenomena; 2e children, similar to fractals, are recursive, infinite, complex, growing more beautiful as we discover how to recognize, identify, value, and support them through research-based educational interventions.

4.2.1 Great Expectations But Misunderstood: Addressing Executive Function Skills for Black, Gifted Students

Tiffany Blassingame Midtown International School United States

Ashley Scott Midtown International School United States

Parents of gifted students of color understand the need for challenging academics for their child, but they often overlook the support needed to strengthen executive function skills. They are often surprised and disappointed when their bright child is unable to remember things, shows difficulty regulating emotions, or insists on keeping a messy backpack or desk. In this session, parents will examine misconceptions that families of color have about gifted learners, explore communication strategies for explaining executive function skills, and share concrete methods to help students of color successfully navigate K-12 education and beyond.

4.2.10 Parenting Perfectionists: Scaffolding Failure and Building a Growth Mindset

Kimberley Perry Emmanuel Catholic College Australia

Perfectionistic gifted children hold themselves to exceptionally high standards, which can ultimately be unrealistic to achieve. As an educator and mother of three gifted perfectionistic children, anecdotes about my own journey with perfectionist and twice-exceptional children will be shared, in addition to evidence-based approaches to perfectionism. This presentation will explore aspects of perfectionism, why perfectionism is problematic and how parents and educators can support children through their perfectionism. It also explores scaffolding failure to help build resilience and how to promote a growth mindset to help overcome the fear of failure that is common in perfectionists.

4.2.11 Moving from "But What If" to "I Can": Parenting the Anxious Gifted Child

Joan Jacobs Lincoln Public Schools United States

Elizabeth Ebers-Truesdale Lincoln Public Schools United States

Anxieties are a normal part of the human experience, but when a child's worries create dramatic lifestyle changes for the entire family and long-term, pervasive problems with navigating the world, parents may not know what to do. The number of students affected by anxiety has increased markedly in recent years, and parents need strategies to help their children manage their symptoms and improve their children's outlook on life. Presenters will discuss typical sources of anxiety as well as effective ways of working with students who have anxiety concerns. They will consider small, incremental changes and specific strategies parents can begin using today.

4.2.2 Extreme Parenting = Extreme Self-Care

Michele Kane Northeastern Illinois University United States

Most adults must quickly adjust to the demands of raising a gifted child whose needs frequently include continuous stimulation, answers to relentless questions, emotional understanding, and little sleep. However, it is essential for adult caregivers to ensure that that are meeting their own needs as well as those of their children. Often this situation requires extreme relaxation to complement extreme parenting. Contemplative practices, including mindfulness, provide avenues for deep relaxation. This session will focus on a panoply of resources from which

busy adults may choose to integrate self-care holistically combined with recommended practices for maintaining balance.

4.2.3 How to Create a More Well-Rounded Gifted and Talented Program with Booster Program Components

Claudette Van Ravenstein Harmony Public Schools United States

This session will discuss the different booster components that have been implemented as part of a gifted and talented (GT) program to meet the intellectual and emotional needs of GT students as well as increase parent engagement. Activities focused on STEAM (science, technology, engineering, arts, and mathematics) and engagement events will be shared with implementation guidelines as well as pitfalls to avoid. Deployment of these components such as a welcome event, family game nights, showcases, code jams, and parent forums can create a more robust and well-rounded GT program.

4.2.4 Examining Underrepresented Cultures and Marginalized Families' Perceptions of Success Across Educational Pipelines in Rural Communities

Justine López University of Denver United States

Louise El Yaafouri (Kreuzer) United States

There are many discussions and reports viewed through the lens of traditional frameworks in sociology of education such as critical theory, standpoint theory, and culturally responsive pedagogy that inform family perceptions. Background considerations include social, emotional, and economic intersections

that influence the development of family perceptions of success across educational pipelines. Factors that contribute to the problem of low academic representation of minority populations continue to persist. The factor most often neglected or lacking in many discussions and reports is the inclusion of the family voice on perceptions (values, beliefs, and attitudes) related to student success and gifted identification.

4.2.5 An Analysis of Awareness of Parents of Gifted Children in Turkey

Nüket Afat Istanbul Sabahattin Zaim University Turkey

The purpose of this study is to evaluate the awareness of parents of gifted students in terms of various demographic variables. This is a quantitative study done with a screening model that is a descriptive research method. The participants of the study were 187 parents whose children ages six to ten had been identified as gifted and talented in 2016-2018. The Personal Information Form, designed by the researchers, was used to collect data on predetermined qualitative factors (gender, education level, occupation, income, etc.) and to determine the awareness of the parents. The "Parent Awareness Scale: The Gifted Children Form (PAS-GC)." developed by Afat & K. Konik (2013), was used.

4.2.6 Contribution of Parental Style on Critical Thinking and Motivation

Adviye Pinar Konyalioglu Istanbul Medipol University Turkey

Sevgi Birsel Nemlioglu Istanbul Kultur University Turkey

Umit Davasligil Maltepe University Turkey Parenting style, critical thinking, and motivation have been considered important factors in learning. The aim of this research is to find out the contributions of parenting style to critical thinking and motivation on fifth-grade gifted students. The instruments used were the Parenting Style Scale (dimensions: Acceptance/ Involvement, Psychological Autonomy, Strictness/Supervision), the Cornell Critical Thinking Test Level X (Components: Induction, Deduction, Credibility, Identification of Assumptions) and the Academic Self-Regulation Questionnaire (Styles: External, Introjected, Identified, Intrinsic motivation). In our analysis of the data, the calculation results of arithmetic average, standard deviations, correlations, and the results of regression analysis will be shared and discussed.

4.2.7 A Study of the Profile of Brazilian Families with Gifted Children

Jane Farias Chagas Ferreira University of Brasilia Brazil

Brazil

Sheila Perla Maria de Andrade da Silva* University of Brasilia

The objective of this research was to trace the profile of Brazilian families with gifted children. A sample of 140 families with gifted children from all regions of Brazil participated in this study. For data collection, a Family System Characterization Questionnaire was used in an online digital format, hosted on the Survio® Platform. The results indicated that the families were predominately made up of a father, mother and consanguineous children. Grandparents made up the main family support network. The data showed that families had a high level of schooling, a high socioeconomic level, and a stimulating family environment, rich in educational resources.

4.2.8 An Introduction to Understanding Your High Ability Student

Jo Tuite
Ball State University
United States

The world of gifted education can be overwhelming in the beginning. This session will endeavor to provide parents/legal guardians with a basic understanding of gifted, including asynchronous development, social and emotional needs, advocating, and where to find resources including, but not limited to, those through their state agencies, the National Association for Gifted Children, and the World Council for Gifted and Talented Children. This session will provide foundational understanding and help participants be a voice in advocacy.

4.2.9 Supporting the Emotional Needs of Gifted Students and Parents in Title I Schools

Dornswalo Wilkins-McCorey Virginia Beach City Public Schools United States

Mary Robin Schumaker Virginia Beach City Public Schools United States

Dr. Ardene Bunch Virginia Beach City Schools United States

This session will provide information on how the Virginia Beach City Public Schools set up a pilot program and offered the Supporting Emotional Needs for the Gifted (SENG) parent workshop for parents in Title I and former Title I schools. The presenters will share how they marketed the session, set up a venue for parents, used online tools for registration, facilitated the discussion, provided follow-up with the parents, continued to send weekly reminders, and asked for feedback from the parents to

get buy-in. They will also share the importance of building relationships with parents and making the environment family-friendly as well as present some of the feedback provided by parents.

4.3.1 Yes, Dad. I Can Hear You! I'm Choosing to Ignore You

Maynard Erece Australia

Borja-Erece Josephine Australia

Maynah Josephine Lourellen Borja Erece Australia

Maynah Josephine Lourellen Borja Erece is gifted and talented. She is a scholar, a ballerina, a writer, an academic, and twice-exceptional. This session will tell the story from her own perspective and from those who are dear to her about the many challenges and struggles to develop her many gifts and talents while trying to adjust to mainstream school programs that were not designed for students with hearing loss.

4.3.10 School Engagement in High Ability Students: Developmental Trajectory, Contextual Factors, and Long-term Educational Outcomes

Alicia Ramos KU Leuven Belgium

Karine Verschueren KU Leuven Belgium

Bieke De Fraine KU Leuven Belgium

In this study, we examined the development of school engagement in high-ability versus average-ability students across late elementary and early secondary school, as well as contextual predictors of this development and its long-term educational outcomes. We found that the high ability students had consistently lower engagement than their peers. The relationship with their teacher and the perceived degree of study orientation in their class distinctly and positively influenced their engagement. Non-academic studies in grade 11 could be predicted by engagement levels in grade five, while male gender and low achievement were salient predictors of secondary retention of high ability students

4.3.11 Tales from Norwegian Gifted Youngsters

Astrid Lenvik University of Bergen United States

Elisabeth Hesjedal* University of Bergen Norway

Lise Jones* University of Bergen Norway

This research project is a qualitative interview study with seventeen Norwegian gifted students in secondary school, ages 12-15. Gifted education is new in Norway, and we want to know what kind of adaptions students receive and how they feel about them. Does their education meet their needs? In their view, what can we do differently? Preliminary findings include responses touching on boredom, group-work and project-work, differentiated education for all, bullying, and differences between elementary and secondary school. Results are discussed in relation to, among others, Gagnè (1995), Renzulli and Renzulli (2010), and Subotnik et al. (2011).

4.3.2 Irritability and the 2e Brain

Julie Skolnick
With Understanding Comes Calm,
LLC
United States

Joanna Haase Gifted Research and Outreach United States

A recent National Institute of Mental Health-funded study identified differences in how the brains of irritable youth react to frustration. Comparing irritable and non-irritable children's responses to frustration via functional magnetic resonance imaging found that regardless of medication, irritable children's brains showed greater neural activation in the frontalstriatal region. The implications for gifted and twice-exceptional (2e) youth are profound in that parents and helping professionals need to shift their understanding to include the physiology behind frustration to better support children who are prone to low frustration tolerance. We will discuss strategies for managing irritability and outbursts and advocacy tools to assist in collaborating on behalf of gifted and 2e students.

4.3.3 Educating Twice Exceptional Elementary Students: What Works? What Doesn't Work? A Parent's Perspective

Amanda Drury Australia

Elementary schooling can make or break twice-exceptional children, often having an impact on the rest of their schooling. This presentation will focus on the experiences of parents of twice-exceptional children. What has worked and has not worked in their children's education, and how have these experiences impacted their children's academic achievement and

social, emotional, and mental health? The session will leave teachers and educational leadership with a range of experiences they can draw on in the education of their own twice-exceptional students.

4.3.4 Misdiagnosis and Missed Diagnosis of Gifted Individuals

Edward R Amend Amend Psychological Services United States

Misdiagnosis of gifted individuals most frequently occurs when professionals mistakenly view specific social and emotional characteristics of gifted individuals as signs of pathology. Missed diagnosis occurs when factors of giftedness obscure weaknesses or when problematic behaviors are minimized because an individual is gifted. The presenter will discuss the most common disorders that lead to either misdiagnosis or missed diagnoses and explore the relationship between giftedness and clinical syndromes.

4.3.5 Meeting the Affective Needs of Gifted Students While Addressing Required Curriculum

Tamra Stambaugh Vanderbilt University United States

Skills such as academic risk taking, developing excellence, overcoming adversity, and regulating emotions are important in developing talent. These skills can be taught within a language arts curriculum. This session introduces an evidence-driven framework that focuses on gifted students' affective needs and connects students with texts and videos that meet curriculum outcomes. An introduction of the framework and examples will be provided.

4.3.6 Supporting Gifted Students' Social-emotional Needs in a Mentoring Program

Shirley Moon Ling Kwok The Hong Kong Academy for Gifted Education Hong Kong

The purpose of this session is to illustrate the importance of supporting gifted students' social-emotional needs in order to make a mentoring program successful by describing a year-long mentorship program called the Hong Kong Gifted Apprentice Program (HKGAP). Educators in the program join hands with masters, schools, and parents to create a supportive community for the apprentices, which is important in East Asian culture. The pairs of mentors and mentees are matched through a careful process. Very positive responses have been received via both qualitative and quantitative feedback. We will briefly share program experiences and feedback in this session

4.3.7 Influence of a Mentoring Program on Gifted Girls' Social, Emotional, and Academic Development

Bek Duyckers Imaginarium @ Perth College Australia

Research evidence highlights the significance of mentorships with gifted students, increasing their academic performance, social adjustment and self-esteem while providing intellectual stimulation and psychosocial and career support. This presentation will explore the holistic influence an alumni mentoring program had on gifted girls in upper primary. The program expanded in its second year; longitudinal effects are addressed through mixed methods analysis. The session will include a critical analysis of what worked well, highlight areas for improvement, and make

suggestions for how the program could be implemented in your context.

4.3.8 Gifted Students' Perception of Gifted Programming

Andrea Hughs-Baird University of Nevada, Reno United States

This study examined the lived experiences of high school seniors who had participated in specialized gifted programming in a public school system. Qualitative analyses of the students' perceptions resulted in themes of academic and social-emotional functioning. Findings indicated that the students' experiences of their giftedness, their academic abilities, their passions, their social connections, and their self-determination matured as they advanced through their K-12 educational career. Ouestions are raised about the need for the deliberate evolution of educator-messaging for students and about the possible positive consequences of reaching the limits of academic ability for gifted students.

4.3.9 What Helps or Hinders the Achievement of Academically Talented Secondary School Boys?

Graeme Miller Gifted Consulting New Zealand

This presentation explores how society, schools and teachers, family, and students' own intrapersonal characteristics have impacted the academic achievement of 93 intellectually gifted and academically talented New Zealand in year nine (American and Australian grade 8) secondary school boys. This mixed methods study is particularly pertinent given that the most recent annual report of the New Zealand Qualifications Authority (2018) 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.

4.4.1 Homeschooling the Gifted: Experiences from Australian and Chilean Contexts

Maria Leonor Conejeros-Solar Pontificia Universidad Catolica de Valparaiso Chile

Susen Smith University of New South Wales Australia

Homeschooling for gifted students has become an option for families in the last two decades. This research sought to analyze and compare the decision process carried out by the families of gifted students and understand the effect of homeschooling in two countries: Australia and Chile. A qualitative methodology that focused on 20 case studies was used. The results found push factors related to negative school experiences that left families with no other option; in many cases, withdrawal from school was lived as a healing process, both emotionally and cognitively, for students and families.

4.4.10 Regular Classroom Teachers' Perception of Gifted Learners

Jack Mathoga Marumo Central University of Technology South Africa

Mike Mhlolo Central University of Technology South Africa

The aim of this study is to examine the perception of regular classroom teachers towards the education of gifted learners. The participants of this study are high school mathematics teachers. Teacher responses were compared and contrasted to identify differences and patterns. Mixed method

was used to collect data. The study found that teachers felt they were adequately enriching curriculum for gifted learners. However, in many cases, gifted learners were not given enrichment tasks that extended beyond those that were given to the entire class.

4.4.11 Context Analysis on Attitudes Towards Gifted Education

Mojca Jurisevic University of Ljubljana Faculty of Education Slovenia

Urska Zerak University of Ljubljana Faculty of Education Slovenia

This presentation will address the attitudes towards gifted students in the upper secondary schools in Slovenia. Specifically, we will focus on the educational context triangulating data collected from students, their teachers, and their parents (N = 1259) in order to understand whether or not gifted students receive appropriate educational opportunities and provisions. The empirical results will be discussed from the QA viewpoint.

4.4.2 The Gifted Speak About Gifted Identity, Human Worth, and Self-Esteem

Rosemary Keighley rosemarykeighley.com Australia

In this study, gifted children currently attending separate full-time gifted classes were interviewed along with adults who had attended such classes in the past. The interviewees, who ranged in age from 10 to 86, were encouraged to raise topics of their own choosing and speak at length. Several strong common themes emerged, with the child data paralleling the adult data strikingly. This presentation focuses

on the gifted identity, human worth, and self-esteem, exploring the interrelationships between them as they affect school life, home life, and later life. Some surprising outcomes from being identified as gifted are revealed in the words of the subjects, as well as their suggestions for improvements in gifted education.

4.4.3 Discover a Powerful Online Learning Model Designed for Gifted Students

Kirsten Stein Athena's Advanced Academy, LLC United States

Educating gifted students comes with its own set of challenges. Many of these challenges can be met by online learning. However, not all online learning models are geared toward gifted learners and can fail to meet the students' educational needs, undercutting achievement potential. Discover a powerful online learning model designed for gifted students — a model that can interface with traditional schooling systems or can be used to enrich alternative schooling arrangements. Find out how gifted students interact with the online platform and their online classmates and instructors. Learn how this timetested learning model helps teachers and parents meet the educational needs of gifted students.

4.4.4 Cancelled

This session has been cancelled Alchemy Therapy & Edith Cowan University Australia

Anecdotal evidence suggests a disproportionate number of gifted children in Australia are homeschooled in comparison to their peers in other countries. This presentation discusses the results of a recent study that collected data for approximately 680 home-schooled children,

specifically the number of families that stated giftedness was a contributing factor in deciding to home-school their child(ren). It will additionally discuss several case studies of families who were interviewed as part of the study and consider the factors they believe contribute to the successful academic, social, and emotional development of their children. Finally, it considers the implications of this study for informing educational policy.

4.4.5 Impact of Inclusion on the Functioning of Students With Special Educational Needs

Nidal Jouni University of Arts and Sciences in Lebanon Lebanon

Anies AlHroub American University of Beirut Lebanon

This study compared the impact of inclusion in a Lebanese school on the socio-emotional and academic functioning of students with special needs to the impact on students without special needs. The group of students with special needs included a group of identified gifted students and a group of students with mild to moderate identified learning disabilities. This comparison was conducted by investigating which population of the three at the school was best served by inclusion from the perspective of the students, which socio-emotional and academic functions were fostered in each population by inclusion, and whether or not the impact of inclusive education on student functioning differed by the type of population.

4.4.6 Global Competencies for P-20 Gifted Learners

Connie Phelps Emporia State University United States Louise Reid RCMA Immokalee Community School United States

Gifted facilitators and educators who wish to stay ahead of the curve in the 21st century need a global perspective that reaches beyond the P-20 classroom. This session proposes in-depth perspectives on five levels of globalization: (a) international studies in the curriculum, (b) Study Abroad experiences, (c) second language learning, (d) Fulbright faculty exchanges, and (e) professional organizations and conference opportunities such as the World Council for Gifted and Talented Children (WCGTC) and the European Council for High Ability (ECHA). Attendees will receive a plethora of resources and suggestions to integrate global studies into P-20 classrooms for gifted learners.

4.4.7 Exploring the Linguistic Profile of Gifted English Language Learners

Hoda Kilani The Right Career and School Fit Canada

This study gleaned insights into the linguistic profile of gifted English Language Learners (ELL). Using a single case study methodology, it explored students, parents, and teachers' views of the gifted ELL journey of linguistic development. Findings suggested that the "good" gifted language learner consciously deploys (a) linguistic strategies, (b) personal traits, and (c) socio-cultural influences for linguistic development. The study proposed a vocabulary development model that promotes a focus on students' needs and interests to increase motivation for secondlanguage learning that leads students to persist in expanding their vocabulary.

4.4.8 Giftedness and Gifted Education: Teachers' Conception and Practice in the Indonesian Context

Chairati Saleh Monash University Australia

Leonie Kronborg Monash University Australia

This study aims to examine teachers' conceptions of giftedness and gifted education programs in Indonesia. 206 Indonesian teachers were surveyed, and eight teachers were interviewed and observed using a sequential mixed methods design. The study found that Indonesian teachers conceived giftedness as innate potential that is likely to be developed and should be identified by multiple assessments. The teachers believed that a gifted individual has a high level of cognitive, creative, and social abilities and a moderate level of motivation. Current gifted educational programs found were acceleration, a credit semester system, and what is known as "a class of excellence."

4.4.9 Stakeholders' Views of Gifted Education in the Netherlands and Flanders and the United States

Eleonoor van Gerven Slim! Educatief Netherlands

C. Matthew Fugate University of Houston-Downtown United States

Internationally, there have been shifts in our understanding of the importance of meeting the needs of our most highly able students. These shifts call on the knowledge and skills of specialists in gifted education and thus have consequences for the way we train these specialists. In this session, we will examine the results of our comparative research between gifted education stakeholder attitudes in the Netherland and Flanders and in the United States, and the implications that they have for how we train pre-service

and in-service teachers to meet the needs of gifted students.

4.5.1 Engaging the Gifted but Reluctant Learner

Diane Heacox St. Catherine University United States

Not all gifted and talented learners are productive students. Not all are "A" students. Some perform exceedingly well in a single curriculum area but appear to be average in others. Some talented students establish a perplexing pattern of either doing well or doing nothing. Some are reluctant, even resistant, learners refusing to play the school game. This session explores well-documented research on underlying causes of low performance and creates distinctions between non-producers, selective producers, and underachievers among gifted populations. Participants are guided through a process for diagnosing specific performance issues and provided targeted courses of action.

4.5.10 Onboarding New Teachers in an All-Gifted Environment: Whys, Wherefores, and Saying Things Out Loud

Melissa Bilash The Grayson School United States

Jill Wurman
The Grayson School
United States
Whether they teach pull-out classes
or at all-gifted programs, new gifted
education teachers have professional
development needs different from
those of other new hires at a school,
especially if they have never worked
in an all-gifted environment before.
An understanding of what is central —
and, perhaps, unspoken — to a school's
philosophy of giftedness is critical to
the success of these new colleagues.
Preparing teachers for the very

different experience of an all-gifted classroom is crucial to their success and to their students' performance and development. We will share specific, real-world information that should be part of every onboarding protocol.

4.5.11 A Portrayal of Inspirational Teachers for Gifted and Highly Able Students: A Grounded Theory Study

Claudia Cornejo Monash University Australia

Leonie Kronborg Monash University Australia

The findings of a grounded theory study aiming to understand what makes a teacher inspiring for secondary gifted and highly able students in Victoria, Australia, are summarized. Ninetyone students completed an online questionnaire where they nominated inspiring teachers. Interviews and classroom observations were conducted subsequently with 11 teachers. The core process indicated the importance of opening new possibilities to students in regards to their learning domain, expanding students' understanding, developing positive attitudes, and encouraging students' actions towards the subject. These findings will contribute to the development of relevant professional learning and instructional strategies in gifted education.

4.5.2 Revisiting Underachievement: How We've Gotten the Words All Wrong

Lisa Van Gemert Lisa Van Gemert, LLC United States

Join us as we revisit the archnemesis of giftedness and explore exactly why the definition of gifted underachievement needs a remix. Why do gifted kids underachieve, and what does the term "underachieve" even mean? Understand why underachievement can only exist in a paradigm of comparison — are we comparing kids to the wrong things? After confronting our definition problem, we'll explore interventions that actually help and the role schools do and do not play. We'll wrap up this session with an empowering vision of intervention.

4.5.3 Underachievement Amongst Gifted Students: How to Diagnose and Treat It

Todd Stanley
Pickerington Local Schools
United States

This session will involve looking at profiles of gifted underachieving students and the causes for their underachievement. Included in these profiles will be multiple strategies that can be employed to help the student overcome the underachievement.

4.5.4 Where'd You Put My Trombone?: Parenting Strategies for Improving Executive Functioning

Joan Jacobs Lincoln Public Schools United States

Elizabeth Ebers-Truesdale Lincoln Public Schools United States

The once high-functioning gifted child may present as a secondary student who has overnight lost touch with his ability to manage time, space, and materials. Parents may notice unprecedented underachievement, and simple tasks become daily nightmares. Presenters will discuss research on executive functioning, as well as how to help students reframe negative thoughts and initiate steps toward an organized existence.

4.5.5 Escalating the Challenge: Differentiation Strategies

Breanna Prochnow Lincoln Public Schools United States

Elizabeth Ebers-Truesdale Lincoln Public Schools United States

Joan Jacobs Lincoln Public Schools United States

To best meet the needs of gifted students, research requires that the level, complexity, and pace of curricula should be matched to a student's readiness and motivation. This session will provide participants strategies for differentiation including the Frayer Model, SCAMPER, morphological synthesis, Johari Window, RAFT, and Topic Generator, as well as ways to think about luring gifted students into high-level thinking.

4.5.6 Individual Education for Gifted Students to Preserve Their Motivation

Petra Leinigen IQ NordWest e.V. , Germany Germany

Highly talented and gifted learners often require an individual learning pace. Their desire for less repetition along with their need for a deeper understanding confronts teachers with the challenge of appropriately catering to such learners. Our digital world supports the implementation of an individual method more easily than a uniformed school-system. How individual can this implementation be? Can an individual learner still be integrated into his or her class or school, thereby maintaining important social ties? These questions pose a challenge to schools, parents, and students.

4.5.7 My Gifted Students Nailed It! What Now?

Angela Wakshul Anne Arundel County Public Schools United States

Jo-Ann Shields Anne Arundel County Public Schools United States

Meeting the needs of gifted math students in a heterogeneous classroom is challenging. Explore how readymade pre-assessments and extended learning tasks are used to differentiate for gifted learners in grades 3-7. These resources, designed for gifted students by district support teams, are embedded in grade-level curriculums. Students have the opportunity to engage in the extended learner tasks based on pre-assessments. These tasks provide students the opportunity to collaboratively explore the concepts in more depth and apply their knowledge in a new, creative way. Participants will leave with examples of resources and strategies that can be integrated into their current programming.

4.5.8 Teachers of the Gifted Learning in Online Courses through Group Strategies

Paula Christensen Northwestern State University of Louisiana United States

Teachers are taking online courses to enhance their knowledge and skills in teaching gifted students. Learning content through interpersonal interaction is a key component of successful internet courses. Group strategies that are used in face-to-face environments to develop cohesive working groups based on positive interpersonal interaction can be translated to the online environment. This presentation delineates group strategies that can be used to develop

effective and positive learning groups in internet courses.

4.5.9 Professional Learning and Families: Working with Teachers to Create Learning Opportunities for Parents

Katie Lewis York College of Pennsylvania United States

Angela Novak East Carolina University United States Communities and parents are an essential piece to providing an exemplary educational experience for students, but engaging them is a common struggle within K-12 schools. In this session, administrators and teachers will walk away with an understanding of how to help teachers create gifted professional learning opportunities for their parents and communities using a three-prong engagement sustainability approach. Participants will leave with an educational toolbox including strategies such as parent seminars, topical book studies, gifted parent support groups, and community outreach as well as a blueprint of how to train teachers to use these strategies.

4.6.1 T2i: Talent, Intelligence, Innovation: Experimental protocol for STEAM profiles

Andrée Therrien CISSS des Laurentides Canada

The T2i (Talent, Intelligence, Innovation) is an experimental protocol for gifted and talented students with a STEAM (science, technology, engineering, arts, and mathematics) profile in public school districts. T2i identifies, through its innovative approach, students with high potential in a STEAM strategic intelligence profile who also show

a superior capacity for innovation, interest in sciences, and perseverance. T2i meets the needs and realities of public education systems: minimal budgetary and professional investment, fast access to results, and quick group testing execution. T2i readily adapts as it counterbalances ethnic, linguistic, economic, gender differences and some clinical diagnoses. The combination of weighting standard assessments with selected scientific predictors makes the T2i unique.

4.6.8 Gifted Students' Perceptions of Challenge: It's Hard, It's Fun, and They Want It

E. Jean Gubbins University of Connecticut United States

Pamela Peters University of Connecticut United States

Ashley Carpenter University of Connecticut United States

Del Siegle University of Connecticut United States

The clarion call in educational circles often revolves around academic challenge. As educators, we want to ensure all students are exposed to challenging learning opportunities. One important part of this practice is examining how students define challenge. To this end, we asked students: "What does challenge mean to you?" Students (n=78) from three states with identification and programming mandates shared their perceptions during focus groups. We employed qualitative data analyses procedures to analyze transcripts. Student voices revealed that challenge is hard but not too hard, it makes them think, it pushes their brains, it is fun, and it is welcomed!

4.7.1 Leveraging Organizational Development in Support of Gifted Education

Maureen Marron Iowa Talented and Gifted Association United States

Susan Wouters Waukee, Iowa, School District; Iowa Talented and Gifted Association United States

Nonprofit associations are vital to the existence of gifted education because of the state-by-state variability in funding, programming for students, and professional development for educators and administrators. The organizational and leadership structure of advocacy groups can impact how effectively and efficiently they are able to carry out their mission to support gifted learners. Our organization recently has engaged in a process of self-evaluation, informed by best practices in nonprofit management, to insure that our activities further our mission. Members and leaders from advocacy groups will take away suggestions for enhancing their group's ability to work on behalf of gifted students.

4.7.10 Gifted Learners in the Mainstream School

Claire Ball Flinders Christian Community College Australia

Emma Brice Flinders Christian Community College Australia

Andrew Watts* Flinders Christian Community College Australia

As educators at a K-12 mixed ability school in a middle-income community in a growing town in Australia, we wanted to seek a solution to providing adequate complexity and depth for our highly able/gifted students. We needed

to cater to the varying behavioral, emotional, and social needs of these students while also catering to their academic needs. This presentation will share the journey upon which we embarked to provide a positive, dual stream, learning environment for our highly able/gifted students and our non-gifted students alike.

4.7.11 Perceiving the Forest, Not the Trees: Problem-Solving for Global Issues and Social Studies Content

Emily Mofield Lipscomb University United States

Tamra Stambaugh Vanderbilt University United States

How can we empower gifted students to think critically about historical events, real-world issues, and future problems? How can we guide gifted students to understand how the past influences the present and how present realities will create the future? Presenters will share a model for developing content expertise to add depth, complexity, and problemsolving to social studies content. Participants will learn to apply the model to guide students through problem identification and solution possibilities by understanding the interconnectedness of multiple societal factors, empowering students to change tomorrow.

4.7.2 Connect, Collaborate, and Create: Growing Gifted Advocacy In Your Part of the World

Terry Bradley Colorado Association for Gifted and Talented United States

Nanette Jones Colorado Association for Gifted and Talented United States

Are you wanting to establish a gifted advocacy organization or breathe new life into the one you have? Effective advocacy doesn't just happen. What are the steps that lay the groundwork to success? How do you increase membership and create sustainability with volunteers coming and going? With whom do you establish relationships and partnerships outside your organization? Where do you get funding for it all? This session describes how one state gifted advocacy organization has grown and remained strong for over 40 years. You will leave with practical ideas to help build bridges and empower your gifted community.

4.7.3 Growing Researchers through National Professional Gifted Associations

Lesley Henderson Flinders University Australia

Tracy Riley Massey University New Zealand

If the teaching profession is dependent on research to provide evidence to inform practice, what is the role of national gifted associations in developing their members as researchers and in disseminating gifted and talented education research to the community? An interim report will be presented on a research project that used a questionnaire, website, and social media review to explore the intentional and aspirational values and activities relating to research in the field of gifted and talented education that national professional associations embrace and promote. A renewed focus on research as a key purpose and function of national associations, in support of both their members and the field, is an intended outcome of this study.

4.7.5 Walk Out of A Meeting Smiling? Provocative Teaming Ideas for 2e Students, Parents, and Educators

Linda Collins
Park Hill School District
United States

William Collins Park Hill School District United States

Powerful, provocative teaming can bring changes that will benefit all twice-exceptional (2e) students. Imagine a collaborative, congenial, insightful conference about an Individualized Education Program (IEP) or 504 plan (referring to section 504 of the Rehabilitation Act of 1973 which prevents discrimination against people with disabilities) or any strategy meeting for a 2e student; this meeting would bring together the skill sets of teaching, psychology, counseling, and content knowledge from education professionals with the skill sets of experienced, loving, knowledgeable, concerned parents who desire a rich learning environment for their child; the child has a voice, too. The "whole" team is there to support the "whole" child. Participants will be able to implement these strategies in their own school communities.

4.7.6 Parent Advocacy Strategies for Accessing School-Based Gifted and Special Education Services

Terence Friedrichs Friedrichs Education United States

Twice-exceptional (2e) students are significantly underrepresented in programs for both the gifted and those with disabilities (US Office of Civil Rights, 2007). Yet, there are various empirically supported strategies at five different phases of high-potential and special-needs services that can help parents to attain those

services. This session covers these strategies: child-find, assessment, planning, instructional, and transitional processes in both gifted and special education. Attendees will add advocacy approaches that they themselves have found helpful.

4.7.7 Inclusive Education for Twice-Exceptional Gifted Students: Myths and Facts About the Frustration of Talent

Lianne Hoogeveen Radboud University Netherlands

Agnes Burger-Veltmeijer*
ABV counseling practice
Netherlands

Alexander Minnaert* University of Groningen Netherlands

Evelyn Kroesbergen* Radboud University Netherlands

How do we meet the needs of twiceexceptional students? We analyzed scientific studies and concluded that it is hard to identify them and that an individual approach is essential for identification. There is still an international lack of empirically based knowledge about effective identification of twice-exceptional students as well as about effective psycho-educational approaches. In spite of these deficits, we found that publications for educational practice in the Netherlands still publish firm statements about the needs of these students that professionals in the field consider valid. The risk of following these unsupported theories is that twice-exceptional students may not get the attention and care that they need.

4.7.8 Imagine the Possibilities: Transform Math Instruction Using Strategies from Mentoring Mathematical Minds

Angela Wakshul Anne Arundel County Public Schools United States

Jo-Ann Shields Anne Arundel County Public Schools United States

In this session, participants will learn instructional strategies that support advanced learners' needs and provide rigor for all by using components of the Mentoring Mathematical Minds (M³) curriculum. Through modeling of the M³ format — Initiate, Investigate, and Communicate — and specific teaching strategies, we will explore ways to dig more deeply into the content, providing depth and complexity within the participant's core curriculum. When used intentionally in the classroom, these strategies encourage student participation, provide challenge, extend thinking, clarify understanding, and provide a platform for students to take academic risks while having their unique needs met.

4.7.9 Igniting Mathematical Minds: Rigorous Questioning Using the Icons of Depth and Complexity

Jo-Ann Shields Anne Arundel County Public Schools United States

Angela Wakshul Anne Arundel County Public Schools United States

In this session, participants will learn instructional strategies to develop rigorous math questions and explore the ways that Sandra Kaplan's Icons of Depth and Complexity can increase rigor. When used intentionally in the classroom, these strategies encourage student discourse, provide challenge, extend thinking, and provide a platform for students to take academic risk while having their unique needs met. Resources shared during this session can be immediately utilized as tools for professional development, collaborative planning, and classroom instruction.

4.8.1 Issues Impacting Inclusive Education for Highly Able Students in South Africa - Renewed Advocacy Efforts

Gillian Eriksson University of Central Florida United States

Kimberley Chandler Director of Curriculum and Gifted Education United States

Dimakatso Agnes Mohokare* Central University of Technology South Africa

In post-apartheid South African education, the focus has been on empowerment through a postcolonial approach that views the discrete identification of high-ability learners as inequitable, discriminatory, and exclusionary, leaving these learners underserved with ineffective curriculum. In 2018 a collaboration between universities in the USA and South Africa developed an Institute on High Ability with a team of US gifted specialists and 25 local presenters who addressed lowincome, twice-exceptional, creative, and racially and culturally diverse gifted students through workshops, school visits, and a conference. Learn about the impact of this advocacy, the challenges of implementing a postcolonial curriculum, research on the mathematically gifted, a culturally and linguistically responsive curriculum, a creative curriculum in social transformation, and future and new technologies.

4.8.8 The Implementation of the Young Scholars Model in a Small, Diverse School District

Stacy Hayden University of Connecticut United States Kelly Miller Alexandria City Public Schools United States

Many pre-identification programs have research demonstrating their effectiveness in identifying culturally, linguistically, and economically diverse students. However, implementing one of these models can seem daunting. In this session, we will share the implementation of the Young Scholars model over the past five years. In addition to sharing the steps during implementation, division data, adaptations, and lessons learned will be shared

4.9.1 Escape The Classroom

Kayla Busse Cartwright School District United States

Kate Garis Cartwright School District United States

Cathy Field Cartwright School District United States

Shake off the "this is boring" blues with an epic escape room adventure! Through the power of play, participants will transform their classrooms into academically-focused escape rooms. This session will explore how you can begin to facilitate escape roomstyle lessons that require students to use teamwork and critical thinking to deduce information from a set of clues and solve a series of complex puzzles. By transforming your lessons, you are guaranteed to cultivate a community of learners who develop competencies and skills that promote perseverance and tenacity, collaborate with peers, and have a deeper connection to the content

4.9.5 Fidelity of Implementation of the Total School Cluster Grouping Model: The Role of Teachers

Juliana Tay Purdue University United States

Nielsen Pereira Purdue University United States

Alissa Cress Purdue University United States

Marcia Gentry
Purdue University/Gifted Education
Research and Resource Institute
United States

Total School Cluster Grouping (TSCG) is a research-based model for meeting the needs of gifted students in general classrooms. This session will focus on the implementation of TSCG in 28 schools in the United States. Preliminary results indicate that the effect of the model on student achievement and identification of students from diverse backgrounds varied across the project schools. One identified factor that influenced these results is the fidelity of implementation of the intervention. The positionalities of the teachers and the level of teacher buy-in were found to be key factors that distinguish schools' fidelity of implementation.

4.9.6 Total School Cluster Grouping (TSCG): A Talent Development Approach to Programming in K-6

Marcia Gentry Purdue University United States

Total School Cluster Grouping (TSCG) is a programming model designed to meet the needs of students with gifts and talents and address the learning needs of all students, thereby benefitting all teachers and students.

In TSCG, gifted students are placed in a classroom with other gifted students and the range of achievement levels is reduced in every teacher's classroom. TSCG results in more students identified over time as high achieving and fewer students as low achieving, with more students from underserved populations identified at higher achievement levels over time. Additionally, student achievement increases, and teachers use gifted education pedagogy with all students.

4.9.7 Grouping Students to Maximize Gifts, Talents, & Potential: What Gifted Students Say Works for Them

Amy Graefe University of Northern Colorado United States

Grouping students is an instructional practice utilized on a regular basis within classrooms. Yet, gifted students often request to work alone rather than in a group. What are the grouping situations in which gifted students actually thrive? This phenomenological study examined gifted students' perceptions of grouping practices in school and the impact these practices had on them. Ouestionnaire and semi-structured interview responses indicated that although many noted positive experiences when working in heterogeneous groups, they strongly felt these experiences were not academically beneficial to them and preferred individual work or homogeneous group work. Implications will be discussed.

5.1.1 Accomplished Teaching Strategies that Work!

Kelly Lomax Mobile County Public School System United States

Through collaborative conversations, participants will build capacity in teaching practice through the analysis of questioning strategies to affect

student growth and achievement; understand how to incorporate accomplished teaching practices such as building relationships and designing systematic instruction for growth; and create/refine a reflection process of instruction and assessment to determine next steps to meet the needs of all learners. The foundation of the session is built on the National Board for Professional Teaching Standards Five Core Propositions, a research-based practice for building capacity in any classroom through accomplished teaching practices.

5.1.2 Examining Teacher Perceptions About the Teaching and Learning of Mathematically Gifted Learners in South Africa

Michael Mhlolo Central University of Technology -Free State South Africa

Former USA President Barack Obama once said that all the wireless devices and fancy software in the world won't make a difference unless we have great teachers in the classroom. However, in many countries, both current and pre-service teachers typically receive little training in the learning needs of gifted students, and South Africa is no exception. One might then wonder how such teachers are responding to the needs of gifted students in their classrooms. Our view was that a lack of training may hinder teachers from identifying gifted students' needs and properly modifying curriculum and instruction to enhance their learning. Consistent with that view, the purpose of this study was to examine teacher perceptions about the teaching and learning of mathematically gifted learners.

5.1.3 Global Suitcases: Training Teachers Through Authentic Case Studies of Diverse Gifted Immigrants Using Virtual Simulations

Gillian Eriksson University of Central Florida United States

Jennifer Sanguiliano University of Central Florida United States Interact live with Ji-ho, the immigrant student with a unique profile who is part of the virtually simulated Global Gifted Classroom! This university/ Florida school district project took a global suitcase of virtually simulated gifted students as "live" avatars into ten challenged, lowincome elementary schools to train teachers in the identification and education of high ability, low income, immigrant, and English Learners (Mixed Methods Research). Learn how the simulation was developed from authentic, real case studies in the USA, Ireland, Brazil, Mexico, South Africa, and South Korea, representing different levels of giftedness and unique challenges stemming from immigration, acculturation, and assimilation

5.1.4 Teachers Who Make A Difference: What Gifted Students Say

Anna Payne Baylor University United States

Laurie Croft University of Iowa United States

According to the National Association for Gifted Children and the Council for State Directors of Programs for Gifted, only one state requires coursework to prepare preservice educators to work with gifted students, and most of these students are taught by teachers with little or no gifted education background. In a qualitative study involving a talent search, participants were asked to identify qualities that make an effective teacher and identify which teacher qualities impacted them

the most and why. Comments aligned with the 7Cs from the Tripod Survey used in the Measures of Effective Teaching project. Student comments went beyond the 7Cs. Implications include creating professional development targeted to all educators.

5.1.5 STEMulate Engineering Academy: Authentic Learning Opportunities in STEM for Low-Income and Diverse Learners

Debbie Dailey University of Central Arkansas United States

Michelle Buchanan* University of Central Arkansas United States

Jason Trumble*
University of Central Arkansas
United States

Alicia Cotabish*
University of Central Arkansas
United States

The purpose of this study was to investigate the efforts of a local university to provide students opportunities at a summer engineering camp. Through the camp, children in grades 3-6 engaged in engineering with peers, teachers, and professional engineers. This presentation reports on the impacts made by the camp on student recognition of the roles of engineers, interest in engineering, and use of the engineering design process (EDP). We found that students frequently used and reflected on EDP as they designed and created solutions to address real-world problems.

5.1.6 Career Interests in Science Among Malaysian Gifted and Talented Students

Rorlinda Yusof Universiti Kebangsaan Malaysia Malaysia Noriah Mohd Ishak* Universiti Kebangsaan Malaysia Malaysia

Siti Noor Diana Mohd Kamaruddin* Universiti Kebangsaan Malaysia Malaysia

This research was conducted to identify the interest in science careers among gifted and talented students (GTs) in Malaysia. 213 GTs ages 12 to 16 from Kolej PERMATApintar Negara, Universiti Kebangsaan Malaysia, were randomly selected to respond to the Self-Directed Search-Form Easy (SDS) Career Interest Test (Amla, Zuria & Ramlee 2008) with a reliability value of 0.85 to 0.97. The results show that GTs demonstrate an inclination to an investigative personality (22.15), social personality (19.88), and artistic personality (15.94). Based on the Holland Three Letter Code analysis, GTs showed a higher inclination towards science careers (73.24) as compared to non-science careers (26.76). Generally, this study shows that GTs have highly inquisitive minds that allow them to think scientifically, be creative in finding solutions, and be interested in sharing information with others.

5.1.7 Socioemotional Characteristics of Gifted Female and Male Students in Science and Mathematics

Maria P. Gomez-Arizaga Universidad de los Andes Chile

Marianela Navarro Ciudad Universidad de los Andes Chile

Annjeanette Martin Universidad de los Andes Chile

Choosing a career in STEM (science, technology, engineering, and mathematics) is not straightforward for gifted women. Despite many

changes made in policies, women are still underrepresented in these fields. Current empirical evidence does not support the claim that biological cognitive differences account for underrepresentation. Therefore, exploring personal and contextual factors is critical to understanding gender differences and to explain the scarcity of gifted women in STEM fields. The goal of this study was to explore two socioemotional variables closely related to achievement and choice in STEM, self-concept, and self-efficacy, with attention to results particularly affecting female adolescents in competitive settings such as gifted programs. Implications for educating gifted girls are discussed.

5.2.1 Using Mindfulness to Enhance Wellbeing for Gifted Students

Antonia Szymanski Western Kentucky University United States

Gifted students' ability to respond to stimuli that may not be perceived by average children cause them to have qualitatively different life experiences (Piechowski, 2006). These differences may result in stress and anxiety that lead to explosive behavior or depression further distancing them from others (Cross & Cross, 2015). Providing students with tools to help relieve stress and regain equilibrium is important. This presentation provides study results from a school for gifted students that incorporates daily mindfulness techniques in grades K-8.

5.2.2 Mindfulness as a Changemaker for Global Peace: Gifted Children & Youth Involved

Dorothy Sisk Lamar University United States

Gifted children and youth experience the ills of the world and desire to be actively engaged in generating activities that can contribute to peace on the global planet. Mindfulness is a pathway for promoting peace within and peace without. This interactive session focuses on current mindfulness research and specific examples of children and youth using mindfulness to develop a peaceful self and send peace to the global community.

5.2.3 Perfect Pitch: Designing and Delivering a Student Centered Well-Being Program for Gifted Thinkers

Shane Kamsner Carey Baptist Grammar School Australia

Carolyn Giles Carey Baptist Grammar School Australia

Designing and delivering a wellbeing program supporting a diverse gifted population from early years to adulthood was a challenge. Best described as a holistic, integrated, and multidiscipline approach, the program is a matrix structure of interconnected support providing gifted students access to levels of well-being based on individual need. The design established a focus on the development of students' emotional intelligence and life skills by specifically teaching students how to develop understanding and skills in nine dispositions we called "attributes." Specific experiences of both primaryand secondary-aged gifted students will be shared, referencing both discordant and harmonious notes.

5.2.4 Cancelled

This session has been cancelled

5.2.5 The Five Habits of Mind: Critical Questioning for High Ability Learners

Seth Jaeger Colgeio Nueva Granada Colombia As the need to promote differentiation and personalization becomes increasingly important, teachers must foster techniques to encourage student engagement. In this session we will work on practical strategies for developing critical questioning skills at every age level in every subject by breaking down the components of an effective driving question for open-ended inquiry projects. We will work with the Question Formulation Technique, the Five Habits of Mind framework, and a tool I have developed over the last year (and recently published on the Google Play store) called the Driving Question Generator.

5.2.6 Balancing Content Standards with the Hallmarks of GT Pedagogy

Jessica J. Reinhard Washington County Public Schools United States

Classes of identified gifted and talented students are just as diverse as those in the general education setting! Teachers of gifted and talented students are charged with ensuring students gain the requisite knowledge and skills needed to transfer learning to authentic tasks, so they cannot afford to write lessons that are activities-based. Participants will explore GT unit plans that connect curriculum standards through a concept, explicitly teach thinking strategies, and challenge GT students through protocols and routines. Units are grounded in the UbD framework and are inclusive of best practices from the field of GT pedagogy. They address content imperatives and the unique learners gifted and talented educators serve. Prepare to unpack a structure that is inclusive of the work of Wiggins & McTighe, Kaplan, Burns & Leppien, and more.

5.2.7 Building a Culture of Thinkers for Every Learner

Kelly Lomax Talents Unlimited United States How would an autonomous, chatterfilled classroom that produces confident, deeply introspective students look? This session aims to answer that question through an interactive workshop that will define a classroom culture that leads to student success and give the instructional leader opportunities to create such a setting. Cooperative groups will build relevant, meaningful lessons that elicit the highest level of thinking using the research-based Talents Unlimited model as a best practice to provide a framework for infusing critical and creative thinking in every aspect of student learning.

5.3.1 Applied Improvisation in the Classroom

Christiana Frank KidScape Productions United States

Get ready to laugh and have fun while learning powerful strategies to help your gifted students K-12 prepare for college, career, and life! Applied Improvisation is an effective way to get students engaged with the material they need to learn and make connections with peers and the world at large. Drawing from modern-day research and psychology, this interactive, evidence-based approach supports academic performance through social-emotional learning, metacognition, and executive functioning.

5.3.2 Teaching Their Bodies, Not Their Brains: Instructing Physical Education Differently to Gifted Children

Jill Wurman The Grayson School United States

Jessica Curtiss The Grayson School United States Alexa Fusselbaugh The Grayson School United States

Perhaps surprisingly, offering effective Physical Education (PE) to an allgifted class is not the same enterprise as teaching a PE class in a typical school environment. Despite nearly 60 years of experience, our instructors discovered that they essentially needed to reconceptualize and reinvent gym class in order to generate engagement, handle intense social-emotional responses, and nurture growth. Mindfully applying what we know about feeding gifted children's brains to how we teach their bodies made all the difference! We will share fieldtested insights and real-world strategies that have genuinely changed student participation and performance (and teacher satisfaction!) in PE.

5.3.3 Is it OK to Start without a Plan? To Work without a Net?

Beth Hahn University of Cincinnati United States

Karen Qualls University of Cincinnati United States

"I want to help the gifted kid in my class, so I'll do it somehow!" "I've got IEPs to support! Am I supposed to write a plan for every kid in my class?" As coordinators of gifted programs and instructors for graduate courses, we hear these statements from teachers. These teachers have good intentions that often fall short of what their gifted students need. We will share evidence-based methods to collaborate with stakeholders to develop rigorous goals that take into account that students of diverse cultural and linguistic backgrounds manifest their giftedness in a variety of ways, that gifted students need connections to information, and that learning requires authentic assessment.

5.3.4 Self-Made Identity: How Using Avatars Influences Online Behavior

Susannah Wood University of Iowa United States

Antonia (Toni) Szymanski Western Kentucky University United States

An avatar is a visual representation of an individual. When participating in virtual worlds, individuals can choose to create avatars of varying races, genders, ethnicities, physiques, and social skills (Lee & Hoadley, 2006). Gifted students in particular may benefit from using avatars in game playing and as they interact online because using an avatar allows the accelerated student to interact with others on a purely intellectual basis. Furthermore, the anonymity of using an avatar may provide a safe space for individuals to be more open regarding personal struggles. This presentation explores the utilization of avatars in supporting gifted students.

5.3.5 In Search of Equity: Providing Access to Training and Resources through Free Online Resources

Bruce Riegel
Maryland State Department of
Education
United States

Wendy Behrens Minnesota Department of Education United States

The Maryland State Department of Education is partnering with Johns Hopkins University IDEALS Institute to create an online platform, GT Discover. The project creates an online repository of resources including data, identification, service models, instructional strategies, and training modules for equitable state identification of gifted and talented students. Project North Star's three-prong approach elevates

the identification and support for disadvantaged and underserved rural gifted populations by training educators, school leaders, and the community. Culturally responsive training modules developed by the Minnesota Department of Education are free and available through a learning management system (LMS).

5.3.6 Ethical Challenges Using Participatory Methods with Gifted Adolescents

Laurie Walden University of Glasgow United Kingdom

One of the biggest issues facing gifted education in America is the lack of representation of students of color, especially Black students. Participatory methods offer a powerful way to capture the voices of these students; however, the ethical challenges of recruitment and methodology make it difficult to conduct such a study as a PhD student. This presentation will outline the obstacles as well as the preliminary findings of using audio diaries to capture the voices of Black gifted students. These findings will have wider implications for discussions as to how we include marginalized groups in gifted education around the world.

5.3.7 Gifted and Multilingual Learners: How Can We Effectively Identify and Serve Them?

Megan Parker Peters Lipscomb University United States

Jeanne Gilliam Fain Lipscomb University United States

To support the changing landscape of P-12 students, those in the field of gifted education must also adjust to meet the identification and service needs of potentially-gifted students.

Much has been written and echoed concerning the need to consider diverse populations and potential in gifted education. However, much less practical information has been shared regarding how to support, identify, and serve our ever-changing group of potentially-gifted students. This session will present practical tools that can be used by educators, psychologists, and administrators to create models for talent development and identification, scaffold experience and opportunity, and match strength and growth opportunities.

5.4.1 Trauma and the Gifted Brain

Maria Katsaros-Molzahn Oregon School District United States

Long-term survival rates for stroke survivors under the age of 50 are grim. In 2014, the individual identified as LO experienced three debilitating health issues including, two strokes. Less than four years later, she is able to function and appear as "normal." Her survival and near-perfect functionality are nothing short of a miracle. Appearances often mask reality; highly gifted individuals have the capacity to compensate, and the brain can retrain itself quickly. Miracles pose challenges for academic and scientific communities bound within epistemological constraints. By removing layers carefully, this session will present a deeper picture of giftedness, perseverance, and the transformative role of art.

5.4.2 Pedro: A Twice-Exceptional Student

Renata Maia-Pinto Pontificia Universidade Católica de Campinas - PUCCamp Brazil

This case study focuses on Pedro, a boy with giftedness and mild autism. Often students with giftedness and autism have their disabilities emphasized more than their abilities and talents. Up until age nine, Pedro did not have his giftedness recognized at school and began to suffer from a lack of challenges, boring classes, and bullying. His school staff said that he was often nervous and impatient in class, was annoyed by noise, and usually left class to go to the library. Solutions suggested were curriculum compacting, enrichment, and individual projects.

5.4.3 Paradox of Giftedness and Asperger's Syndrome: A Case Study in a Private School in Dubai

Aida Younis British University in Dubai United Arab Emirates

Even though the United Arab Emirates is focusing on special education, twice-exceptionality does not exist as a separate category in official documents released by the Ministry of Education. Twice-exceptional students require support for both their giftedness and their learning difficulties. The education of such students could be jeopardized by the lack of guidance for their teachers. Therefore, the purpose of the study is to explore how schools fulfill the special education needs of twice-exceptional learners. The qualitative case study provides the opportunity to thoroughly examine the status of a twice-exceptional learner with Asperger's Syndrome enrolled in a private school in Dubai.

5.4.4 Exploring Issues of Identifying Twice-Exceptional Learners through Case Studies

Wendy A. Behrens Minnesota Department of Education United States

C. Matthew Fugate
University of Houston-Downtown,
Houston
United States

Tracy Inman Western Kentucky University United States

Case studies provide an authentic and meaningful context for considering many of the most complex issues in gifted education. Case studies encourage detailed analysis and critical reflection. During this session, the presenters will discuss the components of a case study and introduce problembased scenarios as a vehicle to explore the characteristics of twice-exceptional learners (gifted and learning disabled). Presenters will model the presentation of a case study and facilitate group analysis of a dilemma that will engage education professionals and encourage detailed analysis and critical reflection. Participants will receive several authentic case studies of twiceexceptional learners.

5.4.5 How Good Was That? Meaningful Ways to Assess Gifted and Talented Student Learning

Christine Deitz Jodie Mahony Center for Gifted Education United States

Assessment, either formative or summative, is key to understanding gifted students and their learning. Data collected from a variety of reliable assessments provide essential guidance for navigating instruction and helping students reach their full learning potential. This session identifies ways to make assessment the most exciting part of the lesson by sharing a variety of effective and field-tested strategies developed to engage gifted students in self-assessment processes and to assist teachers in capturing a true understanding of student learning and student progress. Rubrics, templates, and strategies will be shared through curated links and materials that can be accessed electronically.

5.4.6 A World of Products: Encouraging Excellence through Product Protocol

Tracy Inman Western Kentucky University United States

Julia Roberts Western Kentucky University United States

How can you engage students in high-level learning where they think creatively and critically? One powerful way is through intentional product development and assessment. Today's learners have a wealth of information at their fingertips; they also have incredible technological tools with which to package that information. Educators must ensure that students are able to translate their learning in meaningful, high-quality ways. One way to encourage authentic assessment of real-world products is to use a protocol that ensures ease, consistency, and clarity. Developing and Assessing Product (DAP) Tools guide students in product development, facilitate differentiation, simplify assessment, and remove the learning ceiling.

5.4.7 Depth and Complexity in Gifted Students: Understanding and Simplifying Differentiated Assessment

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

The Australian Curriculum, Assessment and Reporting Authority (ACARA), notes in its student diversity literature that "Gifted and talented students are entitled to rigorous, relevant and engaging learning opportunities drawn from the Australian Curriculum and aligned with their individual learning needs, strengths, interests, and goals." Students world-wide, whose readiness-to-learn necessitates a more

complex and rigorous curriculum, also require differentiated assessment aligned with their level of instruction. This presentation will detail the connection between pre-testing, curriculum delivery and assessment for gifted students, and provide practical resources and examples for differentiating formative and summative assessment through direct and indirect measures.

5.5.1 Engaging Our Gifted Students Using Authentic Learning

Todd Stanley Pickerington Local Schools United States

Given that gifted students can become bored and disengage if not challenged, student choice and engagement are keys to keeping them working to their potential. This session will give an overview of three different methods of authentic learning that can be used with gifted students: project-based learning, case-based learning, and problembased learning, all under the umbrella of inquiry learning.

5.5.2 Sustainability and Productivity in Gifted Education Programs: A New Vision from the University of Jeddah

Faisal Yahya Alamiri The University of Jeddah Saudi Arabia

Sustainability and productivity in gifted education programs from primary education to higher education are becoming a critical issue. In alignment with Saudi Arabia's Vision 2030, the University of Jeddah (UJ) established an unprecedented program called Attracting and Nurturing Gifted Youth which aims to attract schoolidentified gifted students and support them with specialized education provisions during their study at UJ. The presentation aims to show the unique vision of UJ and how its strategy and

policy in gifted education shifted the paradigm of giftedness in Saudi Arabia. Implications and recommendations for gifted education policies and programs will be discussed.

5.5.3 Meeting the Needs of the Many; Gifted Programming from 2nd – 12th Grades

Judith Lombard
Washoe County School District
United States

Cheri DiMartino Washoe County School District United States

Bonnie Pillaro Washoe County School District United States

Sean Johnson Washoe County School District United States

Are you looking to improve your district's gifted programming? Are you interested in learning one school district's approach to meeting the many unique needs of over 4,200 gifted and talented students in grades two through 12? Explore how one district is successfully implementing eight models of programming that include self-contained, collaborative, and cluster models, as well as gifted and talented-specific social and emotional learning components. Presenters will share these programming models from their increasingly diverse school district, district-conducted research to support programming, and, most importantly, how they strive to foster a community of collaboration. The team will discuss both successes and areas for improvement.

5.5.4 Shared Journey, Different Perspectives: Snapshots from Downunder

Kathy Harrison Australia Mark Smith Mentone Grammar School Australia

Amy Horneman Northside Christian College Australia

Hayley Lewkowicz Mentone Grammar School Australia

This symposium from "a land Down Under" seeks to explore how programs and provisions within a group of schools in Australia vary despite their common values, vision, and theoretical underpinnings. Intentional crossfertilization of ideas has brought about growth and shared understandings, but each program maintains a distinctive character. These programs will be outlined by the presenters followed by moderated discussion with the audience, focusing on these guiding questions: In what ways are our programs unique, yet similar in purpose? Is there a tension among the programs? How can we draw from each other through our shared values, passion, and purpose so that our students can impact each other in an enriching way?

5.5.5 Diversity of Characteristics of Gifted Anxiety Among Arabic-Islamic Culture

Ghazi Chakroun King Abdul Aziz University Tunisia

Mira Alameddine Lebanon

Mohammed Jafar Jamalallail King Abdul Aziz Saudi Arabia

Aysha Ajweh King Qabous University Jordan The study aims at identifying the characteristics of anxiety in gifted children in four different Arab countries: Tunisia, KSA, Lebanon and Oman. All gifted participants from the four different countries share the same Islamic-Arab culture and differ in terms of age, gender and grade level, with the country of residence as the independent variable. The One-Way Anova analysis revealed that there are differences in the anxiety level between gifted children that live in countries geographically close to one another (KSA-Oman) while those that are on different continents (Tunisia-Lebanon) but share a common history have similar experiences.

5.5.6 Some Dimensions of Gifted Anxiety and the Prospect of the Future of Education and Life

Ghazi Chakroun
Faculty of Letters and Humanities
Tunisia

Naima Benyakoub Faculties of Humanities and Social Sciences of Algiers 2 University Algeria

The main issue examined by this investigation is the degree of anxiety in gifted and talented adolescents compared to students in regular educational institutions within one society and compared with students in other Arab and Western societies. The analytical results will focus on some cultural characteristics of gifted and talented adolescents (25 Tunisians and 30 Algerians). In particular, out of 35 items, the absence of leisure time to enjoy was considered by the outstanding students to be the most descriptive of their behavior (Gifted Anxiety Scale, Jamalallil, 2017).

5.5.7 The Application of the Gifted Anxiety Scale on Gifted Lebanese Youth

Mira Alameddine LWIS-City International School Lebanon

Nidal Jouni University of Science and Arts in Lebanon (USAL) Lebanon

Gifted children still puzzle educators and society. Although researchers have not yet come to a unified definition of what gifted is, they have set forth common characteristics of gifted children. Among these characteristics is the need for perfectionism, which might lead these gifted children to experience anxiety. Anxiety can cause existential depression, social anxiety and interpersonal isolation for gifted children. These reactions, in turn, can impair gifted children, depriving them of their potential. The study aims to validate the Anxiety Scale (JamalAllel, 2017), developed in the KSA, in a Lebanese context to see if it should replace other international scales that might be culturally biased.

5.6.1 Identifying and Predicting Gifted Children's Achievement Trajectories: Effects of Teachers, Peers, and Child Characteristics

Tessa Weyns KU Leuven Belgium

Bieke De Fraine KU Leuven Belgium

Karine Verschueren KU Leuven Belgium

Our aim is to examine achievement trajectory classes of gifted children and the predicting role of children's socio-emotional and learning-related characteristics and their relationships with teachers and peers. A sample of 344 gifted students (i.e., students with the highest ten percent of scores on

cognitive abilities in a representative sample) was used. Mathematics achievement was assessed in grades four-six. In grade four, we assessed possible predictors. We defined a high, average, and low achieving class. Higher achievement was associated with more independence, more self-confidence, and better mathematical self-concept. Also, average-achieving children showed more hyperactive and anxious/fearful behavior than high achieving children.

5.7.1 Applying Sternberg's Theory of Mental Self-Government to Explore Creative and Critical Thinking

Mehdi Ghahremani Purdue University United States

Although creative and critical thinking often seem to be interconnected modes of thought, some scholars have claimed that they are opposites. The purpose of this exploratory study was to explore dimensions of critical thinking and creative thinking through the lens of Sternberg's theory of mental selfgovernment. Our participants were 62 experts in the field of gifted education. The paired-sample design was applied. Applying the Threefold Model of Intellectual Styles as a theoretical framework, our paired-sample analyses provide evidence of differences in these experts' views. Exploratory factor analysis techniques resulted in a two-factor model for critical thinking and a three-factor model for creative thinking.

5.7.2 Powerful Strategies to Enhance the Learning of Gifted Students

Nathan Levy Nathan Levy Books LLC United States

This workshop explores numerous, proven ways to reach gifted learners in challenging ways. Participants will leave with a variety of new strategies and specific ideas to help pupils become better creative and critical thinkers. A variety of successful teaching and parenting techniques relating to social and emotional needs will be shared. Bring your thinking caps and your funny bones to this dynamic presentation.

5.7.3 Creativity Composure: Reasonable Identification and Practice, Reasonably Applied

Bonnie O-Regan Greenwich Public Schools United States

Yvonne-Nicole de St. Croix* New Milford Public Schools United States

This session will provide attendees with resources towards the methodology and pedagogy behind identification of creativity relative to gifted learners, the constraints associated with programming for creativity identified gifted learners, and advancement of practices that enhance creative productivity for gifted learners. Models of giftedness and talent evolve and coexist as research constantly adapts to learners. Constraints exist in the identification, practices, and programming for gifted learners exhibiting high performance in areas of creativity. To develop and foster emerging and existing talents and gifts exhibits by learners, practices in creativity should incorporate a sense of belonging, wantedness, and connectiveness among gifted learners.

5.7.4 Cancelled

This session has been cancelled

5.7.5 Mindsets of Underachievers: Understanding Why They Underachieve and What We Can Do

Emily Mofield Lipscomb University United States Megan Parker Peters Lipscomb University United States

The interaction of thoughts, emotions, and beliefs about ability influence how students achieve. Our research data provides insight into how gifted underachievers differ from gifted achievers on a number of variables, including their conceptions of ability. Presenters will share how their research findings regarding the achievement motivation of gifted underachievers can be especially useful in planning interventions to address underachievement. Presenters will share specific intervention ideas related to developing self-efficacy, organizational supports, self-regulation, and goal-attainment.

5.7.6 Multiple Intelligences and Psychological Well-Being Among Gifted Students in Hong Kong

Lai Kwan Chan Program for the Gifted and Talented Hong Kong

David Chan*
Program for the Gifted and Talented
Hong Kong

Huimin Liu Jockey Club "Giftedness Into Flourishing Talents" Project Hong Kong

Xiaoyan Sun Program for the Gifted and Talented Hong Kong

This study examined the relationship between multiple intelligences (MI) and psychological well-being (PWB) among a group of gifted students in Hong Kong. 318 gifted students were selected from 2309 students from 20 primary and secondary schools based on students' scores on the Raven's Test. Regression analyses showed that in predicting the six PWB dimensions, intrapersonal and

interpersonal intelligences emerged as the most important predictors. Structural equation modeling analyses showed that general self-efficacy partially mediated the relationship between person-related (intrapersonal and interpersonal) intelligences and PWB. The strength of the mediated relationship did not differ across gender but differed across grade level.

5.8.1 The Impact of Outside-of-School Learning: Insights from "Super Users" of Supplemental Gifted Programs

Susan Corwith Northwestern University United States

Schools help nurture academic talent, but most schools only have the capacity to provide an introduction to domains and fields of study. To receive more differentiated, enriched, and advanced learning opportunities, numerous talented students and their parents have embraced supplementary educational programs, which take place outsideof-school. Researchers interviewed 60 students who took supplemental enrichment and accelerated courses and explored how the experiences informed in-school learning, including course placement, achievement, and socialemotional development. Findings suggest supplemental opportunities can be used to support talent development in school. Presenters share results and recommendations for strengthening in-school and outside-of-school connections.

5.9.1 Fostering Creativity from Age 0 to 8

Srinivasan Muthusamy GEAR innovative International School, Bangalore India

Research shows that a child is greatly influenced by parents. Teachers as well influence a child's thought process and mindset formation. However, a lack of insight into child development by their caretakers and teachers deprives many children of their innate potential to expand their talents. In-depth knowledge of brain development, multiple intelligences, and other pedagogical strategies can help all children enjoy learning and realize their potential.

Poster Abstracts

1 Overcoming Gender Bias in STEM: The Effect of Adding the Arts (STEAM)

Pessy Sloan Daemen College United States

Adding the arts to the traditional STEM (science, technology, engineering, and mathematics) curriculum may capture the interest of previously uninterested college students. The current study evaluated the impact of a STEAM (science, technology, engineering, arts, and mathematics) course on female students' later pursuit of additional STEM courses compared to female students who attended a traditional STEM course. The results support the theory that attending a STEAM course has a positive impact on female students compared to a traditional STEM course.

2 Gifted-EBD: Program Design and Next Steps

Barbara Lazarou University of South Florida United States

Although research on programming strategies for gifted-EBD (emotional and behavioral disorders) students is limited, there is evidence to support the theory that strengths and challenges are mutually inclusive. Neither the gifted nor the emotional-behavioral identification is more urgent than

the other. This poster presentation delineates how the following next steps have potential to expand possibilities for gifted-EBD students: framework, programming, voices, professional development and communication/language. Key points from the poster presentation include how embedding an affective component to the overall curriculum and establishing collaborative intent among human resources are essential for building a platform that strengthens and guides the needs and goals of gifted-EBD students.

3 Increasing Women's Pursuit of STEM Degrees: Selective High Schools and a Challenging Curriculum May Help

Pessy Sloan Daemen College United States

Women have made great inroads into a variety of careers and academic fields in the United States in the past century, yet there are still barriers, particularly in regard to pursuing STEM (science, technology, engineering, and mathematics) fields. Selective public high schools help remove some of those barriers by providing female students with opportunities to be in a challenging curriculum with like-minded peers. Out study's results support the positive relationship between female students attending a selective, specialized public

high school in New York City and graduating with a degree in STEM from an honors college. Ultimately, these schools are one factor that can lead to increases in women's participation in STEM careers and contributions to societal progress.

4 Twice-Exceptionality Research in Brazil: What do we know?

Aline Galassi Centro Universitario Padre Anchieta Brazil

Daniela Vilarinho-Rezende Centro Universitario Padre Anchieta Brazil

This study was a systematic review of the Brazilian literature examining twice-exceptionality. The goal was to report on areas commonly addressed in the literature and identify those needing further attention. Results showed that twice-exceptionality has only recently been addressed in Brazilian research. The most common type of study was literature reviews. Most of the studies were conducted by psychology researchers in the southeast region of Brazil. The type of co-existing disability most commonly addressed in the studies was autism spectrum disorder. Clearly, there is a need for additional research on twiceexceptionality in Brazil.

5 NASA Balloon Powered Car

Denise Zigler JPL-NASA United States

This session seeks to investigate Newton's third law of motion by providing a hands-on lesson for teacher involvement: NASA Balloon-Powered Cars, which teachers can implement into their curriculum and use with diverse gifted learners. The content in this session consists of teacher participation in hands-on activities, visual demonstrations, and power-point demonstrations. Handouts will include NASA Balloon-Car materials. Attendees will increase their understanding of and comfort with the nature of science and the scientific process through the context of an interesting, real-world, scientific, interactive, hands-on lesson. Additionally, they will examine Newton's Second and Third Laws through the creation of NASA Balloon-Powered Cars and examine NASA teacher websites.

6 Visual Literacy: Navigating a World Immersed in Visual Language

Dr. Martha Champa University of Toledo United States

Dr. Susanna Hapgood University of Toledo United States

Stop! Look around you. Take note of the images inscribed on our visual landscape. Are you skilled in interpreting them? In creating them? This poster presentation will define visual literacy and its importance in developing and engaging both critical and creative thinking. You will learn how to use the elements of art and the principles of design to interpret visual images. You will then engage in a creative activity that involves interpreting a visual image

and creating an aesthetic response or creating a visual image to represent information and/or data. Visit this poster presentation to deepen your understanding and use of visual language.

7 Teacher Perceptions of GATE Certification Practices in a Southern Californian District: A Replication Study

Jessica Cannaday Azusa Pacific University United States

Jennifer Courduff Azusa Pacific University United States

This replication study surveys teachers regarding certification practices in Gifted and Talented Education (GATE). Data sources include Likert survey questions and open-ended interviews with current teachers at seven schools in Southern California. Results indicate that perceptions of identification and gifted student characteristics vary according to the GATE certification status of the teacher but not according to the grade level taught. Teacher participants further indicated that training in GATE is valuable but not necessary for all teachers.

8 Examining Teacher Discourse in STEM Classrooms in a Summer Enrichment Program

Nesibe Karakis Purdue University United States

Nielsen Pereira Purdue University United States

Several studies have focused on the orchestration of classroom dialogue to investigate successful pedagogies in classrooms. Further research is needed to examine different types of teacher discourse occurring in gifted

classrooms. Through this qualitative project, the discourse of five teachers in a summer enrichment program was investigated during the implementation of STEM curriculum units by looking at the content, complexity, structure, and orchestration of classroom discussions. The results of this study will be shared with participants, and we will discuss how to plan professional development materials for classroom discourse for teachers working with gifted students.

9 Connecting Students to a World of Possibilities in Authentic Science Research

Shirley Farrell Troy University United States

The power of the Internet brings scientists together with everyday citizens to collaborate on research projects. Students can assist global scientists on projects that provide realworld applications of skills and content while advancing scientific knowledge. Learning then becomes relevant and students are "thinking as scientists." Students anywhere in the world are able to find projects in their interest areas, such as the arts, language, literature, space, climate, nature, physics, history, and medicine. Leave this session with multiple resources to help your gifted students find their interests and become scientists

10 A Program for Nurturing the Potential of Indigenous Community Children from Arunachal Pradesh, India

Mrinmayi Vaishampayan Jnana Prabodhini India

This study presents a project initiative carried out to explore and nurture the potential of children in an identified sample of a remotely located indigenous population from Arunachal Pradesh, India. It elaborates on the different ways used for content delivery and documents observations of responses and behaviors of the children and the feedback of facilitators and students. The objective of the study is to document in detail a sample of a nurturing program to be used for remotely located diverse populations.

11 Developing Gifted Social/ Emotional and Academic Skills in a K-Fifth Gifted Community

Linda Kirby Williamson County Schools United States

Gifted learners kindergarten through fifth grade come together each day in a school environment to develop social/emotional, collaboration. and communication skills through structured activities. The gifted teacher facilitates the safe learning environment where students can build positive relationships with intellectual peers. Students develop their own learning activities to share with others: logic puzzles, Cartesian coordinate pictures, pattern block pictures that teach math concepts and reasoning, and many other activities of interest to each child. Through these activities, they develop relationships and develop social and emotional skills. Learn how to set up a gifted community of elementary learners in your school or community.

12 Fostering Career Success and Satisfaction for Gifted and Talented Students

Joi Lin University of Denver United States

P-20 education focuses on developing student potential, but gifted and talented students sometimes struggle to prepare and select a career path that will allow the demonstration of extraordinary skills, support their

life satisfaction, and align with their values. This poster will share a review of the literature and share opportunities for career and talent development, affective strategies that support worker productivity and well-being, and programming options that can be implemented to foster the future career success for gifted children.

13 One School's Journey to Implementing Identity Workspaces and Culturally Responsive Education

Tiffany Blassingame Midtown International School United States

A physically, intellectually, and emotionally safe environment is essential to student learning and wellbeing in schools. Join administrators from a school designed for gifted learners as they discuss the power of identity work and affinity groups in promoting culturally responsive education. Discussion topics include a history of affinity groups, educational resources and experiences, and the administrative infrastructure needed to support this initiative.

14 Gifted and Faced with a Problem: The Ase of (Meta)Cognitive and Affective Strategies

Chelsea O'Brien University of Amsterdam Netherlands

Dutch gifted students frequently have underdeveloped metacognitive strategies. Complex tasks, such as translating Latin texts, can be used to develop these strategies. This research focuses on which (meta)cognitive and affective strategies students do and do not use when translating Latin sentences, particularly when faced with a problem. A think-aloud study was conducted with students translating Latin sentences, some of which were non-coherent to ensure that the students

came across problems. The analysis shows that students prefer using cognitive problem-solving strategies to metacognitive ones; some students even rely wholly on their cognitive skills.

15 Self-Regulated Learning: What It Can Look Like

Chiou Yen Chang Raffles Girls School Singapore

King Koon Koh Raffles Girls School Singapore

Educators believe that "no gifted individual is exactly the same" (National Association for Gifted Children). The traits "independence in work and study" and "diverse interest and abilities" were of special interest in a study conducted in a Singapore school for high ability learners. This study focused on using self-regulated learning and differentiated instruction strategies to improve the learning of mathematics for girls ages 13-15. The communication between students and teacher was leveraged on the Google learning platform to provide effective feedback regarding the students' progress. This method enabled teachers to better prepare the instructional materials for subsequent lessons.

16 The Rubik's Cube: A Unique Twist in STEAM Gifted Education

Dan Van der Vieren Chinook West Alternative High School/ You CAN Do The Rubik's Cube United States

The Rubik's Cube, invented by Ernö Rubik in 1974, continues to spark creativity and curiosity across the world. Through a lending library program, it is possible for educators to borrow Rubik's Cubes not only to promote STE(A)M (science, technology, engineering, (arts,)

and mathematics) education in any mathematics classroom, but to inspire pupils to solve the Cube quickly by practicing algorithms and pattern recognition. This independent project specifically evaluated the Rubik's Cube on its effectiveness in building students' self-confidence, enhancing classroom camaraderie, and promoting problem solving and critical-thinking skills over two, five-week elective courses at an alternative high school in Colorado during the 2017-2018 school year.

17 Deepening Knowledge through Visual Arts and Technology

Alicia Weyeneth Compton Unified School District United States

This presentation will provide examples on how to deepen knowledge in various content areas by using applications such as the Prompts of Depth and Complexity, Content Imperatives, Math Icons, and the integration of visual arts and technology. Attendees will see how the use of interactive technology based presentation tools can be embedded with visual prompts which challenge students to think in deeper and more complex ways across the disciplines, while retaining a focus on visual arts instruction.

18 Helping the Gifted Children Solve Practical Problems with Mathematics

Zhijie Liu Beijing No. 8 High School China

Mathematician Hans Freudenthal emphasized the importance of realistic mathematics education. In his theory, mathematics education must be connected to reality and everyday life. Gifted children are often more curious and determined than ordinary

children. It is the responsibility of their teachers to tap their potential and develop their strengths so that they can solve problems with mathematics. This study sets up various mathematics topics, encourages and guides students in a multi-faceted manner, stimulates their interests, and lets students solve problems in a proactive and relaxed way.

19 Professional Development of Teachers to Improve the Education of Gifted and Talented Scholars

Shelbie Dixon-Brown Nova Southeastern University United States

The shortage of ongoing professional learning has created a learning gap for educators of gifted learners who want to increase self-efficacy and have a desire to improve their pedagogical strategies. Cortina (2011) suggested limited opportunities for professional development in gifted education topics for general education teachers is a persistent and pervasive problem. This mixed methods research study consisted of the researcher employing two theoretical frameworks, Adult Learning Theory (Knowles, 1980; 1984) and Social Cognitive Theory (Bandura, 1997). The results of the survey revealed that teaching area emerged as the strongest predictor that contributed to the model significance. The significance of the data and the implications they have on the future of professional development for gifted educators are critical. These findings may influence teachers, administrators, professional developers of school districts, and the gifted community in promoting further evaluation of gifted and talented professional development practices.

20 Gifted Children in Primary Schools: Children's Perspectives as Participants Across Social Arenas, Activities, and Teaching Charlotte Madsen Aarhus University, Arts. Denmark Denmark

My research is about gifted children in Danish primary schools. What the children themselves perceive are important for their well-being, learning and participation. From children's perspectives, I want to create knowledge about how they experience school day and classroom education. What matters to their learning and well-being and their experience of inclusion in class communities? What social interaction do they participate in and what are they oriented to? The ambition is to create knowledge for teachers in support and challenging these children while at the same time children experience themselves included in the class community.

21 A World of Possibilities: Gifted Hispanic Students Overcoming Barriers to Advanced Placement

Amy Graefe University of Northern Colorado United States

Prior studies have repeatedly extolled the advantages of Advanced Placement participation for high school students. This research, however, has primarily focused on the typical student population, ignoring both the needs and the unique characteristics of gifted learners in general, and gifted learners from underrepresented populations in particular. This research examined factors that were potentially predictive of success on Advanced Placement exams for Hispanic gifted students at a high school that received grant funding to increase diversity in its Advanced Placement courses. Findings, implications for practice, and suggestions for future research will be discussed

22 The Relationship Between Creativity and Creative Dispositions Among Kindergarten Children in Hong Kong

Hoi Wai Wong Hong Kong

In this study, TCAM, Hong Kong version (Chiang, 2018), and Five Creative Dispositions Checklist were used to determine children's creativity and parents' perspectives on their creative dispositions, respectively. The results showed that intuition, from the imaginative disposition, was positively correlated with the imagination score of the TCAM (r = .271*); and collaboration, from the collaborative disposition, was negatively correlated with the composite score of the TCAM (r = -.272*). Implications on the Five Creative Dispositions Checklist, the potential cultural difference, and Hong Kong parents' perspectives on creativity and creative dispositions were discussed.

23 A Possible School: The Educational Center for High Capacities

Julián Betancourt Morejón Secretariat of Education Jalisco Mexico

María de los Dolores Valadez Sierra Universidad de Guadalajara Mexico

The CEPAC is a full-time, public, educationally innovative school at the basic level, aimed at children from six to 12 years of age with an IQ equal to or greater than 130. It provides services in a space adapted and equipped for two specific programs: Proedin, an innovative educational program that is part of the curricular plan established by the Secretary of Public Education where project-based teaching deepens and expands the content; and E-Lab, an extracurricular enrichment program

using laboratories such as STEM, Innovation and Creativity, Learning Commons, and Art and Social-Emotional Competencies.

24 Place-Based Learning: Acquiring 21st-Century Skills and Increasing Cultural Cognizance Through Travel

Ashley Scott Midtown International School United States

In the age of digital learning, Gifted and Talented Education (GATE) programs must consider what it means to prepare gifted students not only to master the content but to acquire the skills needed for industries not yet created. In an equally complicated task, teachers and administrators must also begin providing authentic opportunities for students to engage with different cultures. The goal is to create students who engage with the culture through action and reflection, thereby creating empathetic and globally minded citizens prepared to interact with the world. This session will teach participants how to construct an immersive travel program that helps facilitate the acquisition of 21stcentury skills and cultural competency.

25 An Exploration of School Belonging, Connectedness, and Life Satisfaction of High Ability LGBTQ+ Students

Jo Tuite Ball State University United States

A review of the literature shows that little research has been conducted on the intersectionality of LGBTQ+ and high ability youth, particularly as it pertains to school belonging. The evaluation of this data will provide educators insight into the educational and life experiences of high ability LGBTQ+ students and the factors that influence their sense of school

belonging and connectedness. It will also provide an understanding of potential areas for school improvement. It is imperative for educators to establish a school environment that allows all students to feel safe and connected and to thrive academically and socially.

26 Thinking About Physics and Chemistry through Feedback: A Path for Gifted Students

Martin Konecny
Faculty of Mathematics and Physics,
Charles University, Prague
Czech Republic

This session will present several concrete, field-tested proposals that may help educators, especially when teaching science. It will introduce not only possible methods of evaluating students but also the advantages of making educational experiments. The central part of the presentation will focus on a form of student evaluation frequently used at Charles University, explain its purpose, demonstrate how the information gathered can help teachers reflect on their own teaching styles, and explain its importance when teaching gifted pupils. Additionally, the session will discuss how to obtain information from educational experiments and how to verify them. Finally, the impact of gathering gifted students' feedback on education will be discussed

27 The Influence of Creative Classroom Environments on the Creativity of Children Aged 10-14 Years

Xiaochen Ma Faculty of Education, Beijing Normal University China

Li Cheng Faculty of Education, Beijing Normal University China Yan Wang Faculty of Education, Beijing Normal University China

Zhiyu Xu Faculty of Education, Beijing Normal University China

This study used the Creative Classroom Environment Questionnaire, Learning Motivation Questionnaire, and Judicial Thinking Style questionnaire made by the authors as well as the Creative Battery from the Aurora-a Battery to explore the mediating effect of learning motivation and a judicial thinking style on the influence of a creative classroom environment on the creativity of 10-14 years old students in China. A sample of 2007 students was obtained. The results indicated that learning motivation and a judicial thinking style played a serial mediating role in the influence of creative classroom environments on creativity while the direct effect of creative classroom environment on creativity was not significant.

Symposium Abstracts

S2.6.1 Learning for a New World: Innovative Design-Build Enrichment for Creatively Gifted and All Learners

Sarah Shuster-Tucker RGI Creative United States

Sylvia Rimm Family Achievement Clinic United States

Ryan Gerber RGI Creative United States

John Stipek Saint Joseph Parish School United States

Maureen Goodwin Saint Joseph Parish School United States

Saint Joseph Design-Build Studio (the Studio) is the co-creation of a K-8 school and a creative small business. Standards-aligned Studio projects are designed to engage K-8 students in the design-build process of researching, designing, prototyping, building, and presenting innovative ideas. Creatively gifted students, who typically complain about boredom, discover design as a route to enjoying learning in their unique styles. Underachieving gifted students who avoid working hard easily become engaged in effort and discovery. In this symposium, the Studio's leadership team will share the

challenges, strategies, solutions, and outcomes of implementing a designbuild approach to learning through school-community partnership.

S2.6.6 Asynchrony Revealed: The Columbus Group Story

Michele Kane Northeastern Illinois University United States

Barbara Mitchell Hutton NOVA Middle School United States

Ellen D. Fiedler Northeastern Illinois University/Wings for Education, Inc. United States

Linda Kreger Silverman Gifted Development Center/ISAD United States

Shelagh A. Gallagher Engaged Education United States

The concept of asynchronous development of the gifted is intuitively grasped by parents, teachers, and counselors deeply involved in the lives of gifted children. Yet, this notion has only been part of the gifted lexicon for the last 25 years. This presentation describes how asynchrony became woven into the fabric of the psychology and education of the gifted and the resulting positive impact of understanding and recognizing

asynchronous development at home, school, and within the community. The story of The Columbus Group definition demonstrates what can be accomplished when it does not matter who gets the credit.

S2.8.1 Criteria and Procedures for Accreditation of Assessments of Giftedness and Talent

C. June Maker University of Arizona United States

Ketty Sarouphim-McGill Lebanese American University Lebanon

Julia Link Roberts Western Kentucky University United States

Diana Hill University of Arizona United States

Our purpose is to present the process and results of an international project to develop criteria and procedures for evaluating the quality of assessments. Although these criteria and procedures are designed for all types of assessments and for multiple purposes, the emphasis in this symposium will be on the criteria related to assessment of giftedness and talent in diverse populations. Representatives from the committees will present the quality indicators and describe the test evaluation process.

S2.8.6 Panel Discussion: Policies and Practices that Promote Equity in Gifted Education

Soha Elzalabany American University in Cairo Egypt

Wendy A. Behrens Minnesota Department of Education United States

Julia Roberts Western Kentucky University United States

Leonie Kronborg Monash University, Education Clayton Australia

Jonathan Plucker Johns Hopkins University United States

The field of gifted education has evolved from one in which intelligence was thought to be a fixed trait to one that acknowledges the importance of learning, effort, training and practice. As the field evolves, policymakers increasingly see the relationship between access and opportunity. They see education policy as a unifying function that focuses efforts and establishes a set of uniform expectations across an educational system. An international panel will consider evidence-based policies and practices that encourage excellence and allow highly-able students from traditionally under-represented backgrounds to reach advanced levels of academic performance regardless of socio-economic status and geographic constraints.

S2.9.1 Empowering 2e Learners through the Visual and Performing Arts

Jilliane McCardle Model Laboratory School - Eastern Kentucky University United States Mary Elizabeth Henton Model Laboratory School - Eastern Kentucky University United States

Karen Edwards Model Laboratory School - Eastern Kentucky University United States

Jana Mayer Model Laboratory School - Eastern Kentucky University United States

Christi Sexton
Model Laboratory School - Eastern
Kentucky University
United States

During this symposium, the presenters will share the experiences of twiceexceptional (2e) learners in a fine arts program at a K-12 laboratory school. Specific instructional strategies will be illustrated that enable 2e learners to be empowered through visual and performing arts programming. Presenters representing a variety of roles, such as gifted coordinator, director of orchestras, visual arts instructor, special education teacher, and school counselor, will highlight the interconnectedness of their roles as they relate to supporting 2e learners and their gifted peers through the arts.

S2.9.6 Creative Problem Solvers Today – Innovative Leaders Tomorrow!

Marcia Delcourt Western Connecticut State University United States

April Dennis
Future Problem Solving Program
International
United States

Sandy Horton North Carolina Future Problem Solving United States

The 21st Century requires powerful and innovative global leaders who must possess effective problemsolving skills. Gifted students do not automatically develop into leaders or problem solvers; rather, they must be provided appropriate tools to acquire these behaviors. The Partnership for 21st Century Learning identified four Cs: Collaboration, Communication, Creativity, and Critical Thinking — all of which are addressed within Creative Problem Solving (CPS). Audience members will practice CPS activities incorporating idea-generating and idea-focusing tools. A study will be shared that demonstrates when students learn about and are given strategies to hone their problem-solving styles, their performance in creative problemsolving significantly improves.

S3.7.12 Neuroscience and Gifted Education: Foundation for Practice or Application Gap?

Pamela Clinkenbeard University of Wisconsin-Whitewater United States

Erin Miller Bridgewater College United States

Susan Assouline University of Iowa United States

Curtis Bradley Bridgewater College United States

What does neuroscience research offer scholars, psychologists, and teachers who work with gifted and talented students? This symposium will provide an overview of research including basic neuroscience concepts relevant for education, applications of neuroscience to the development and education of gifted students, and specific findings with twice-exceptional students.

Topics include use of the term "brainbased," neuromyths in our field, the

research base for educational practice, and how a focus on neuroplasticity might broaden our conception of talent development, particularly with young children of poverty. There will be time for discussion and O&A.

S3.7.2 Achieving Eminence: What's Known? What Needs to Be Known? Does it Matter for Our Field?

Rena Subotnik American Psychological Association United States

Susan Paik Claremont Graduate University United States

Renata Muniz Prado University Mauricio de Nassau Brazil

Leonie Kronborg Monash University Australia

Frank Worrell University of California - Berkeley United States

Paula Olszewski-Kubilius Northwestern University United States

What aspirations for eminence do we hold for the children, youth, and young adults with whom we work? Should we expect that programs will incorporate insider knowledge to prepare participants who strive towards notable achievements? Should elementary school specialists be familiar with optimal out-of-school programs and reputable secondary schools for domain-talented students? Concurrently, what psychosocial and other skills need to be developed to prepare for the next level of talent development in a domain? Who should be responsible for providing coaching or mentoring for these skills? Finally, how much choice should students have about what domain to pursue?

S3.7.5 Socratic Inquiry: A Pedagogy to Address the Social-Emotional Needs of the Gifted in the Classroom

Richard Courtright
Duke University Talent Identification
Program (Duke TIP)
United States

Crissy Brown High Point University United States

Laura Courtright
Gaston County Schools
United States

Socratic inquiry not only can be used to enhance critical thinking skills but also may be adapted to address the social/emotional issues faced by gifted and talented students. Gifted students may experience vulnerabilities and encounter difficulties as they develop an understanding of the self as gifted and in relationships with others. Focusing on classroom/program applications, the presenters will share strategies for conducting Socratic seminars to explore issues of concern to the students. Socratic discussions centering on the characters/persons being studied through literature or biographies can permit students to openly explore their concerns, fears, and issues through civil discourse without self-identifying.

S3.7.9 Embodied Cognition: Findings and Practical Implications

Sarah Awad University of Erlangen-Nuremberg Germany

Mariam AlGhawi Hamdan Bin Rashid AlMaktoum Foundation for Distinguished Academic Performance United Arab Emirates

Thomas Eberle University of Erlangen-Nuremberg Germany Wilma Vialle University of Wollongong Australia

Albert Ziegler University of Erlangen-Nuremberg Germany

Zinaida Adelhardt*
University of Erlangen-Nuremberg
Germany

Tobias Debatin* University of Erlangen-Nuremberg Germany

Barbara Jacob* University of Erlangen-Nuremberg Germany

Stefan Markus* University of Wuppertal Germany

Within cognitive science, the theory of embodied cognition has gained increasing attention by assigning the body an integral role regarding cognitive functioning. In contrast to non-embodied computational concepts, embodied cognition assumes that physical cues and cognitive processes are deeply rooted in each other. During this symposium, we will examine the effects of embodiment on self-concept and creativity as well as introduce a new approach that combines perception-action coupling and giftedness. Finally, within the framework of a discussion, we will highlight the relevance of embodied cognition for the field of giftedness.

S3.8.12 Gifted LGBTQ Students around the World: Needs and Responses

Terence Friedrichs Friedrichs Education United States

Fiona Smith Gifted Minds, Pty., Ltd. Australia Frans Corten Independently Employed Netherlands

Susan Jackson Daimon Institute Canada

Orla Dunne Centre for Talented Youth Canada

Gifted LGBTQ youth are safer and happier in some parts of the world than they have been in previous times. Yet, depending on their nation and sector of their country, these youth face very different situations in terms of the extent to which they have access to resources that empiricallysupported research has shown to be necessary, including physical safety, psychological support, teaching role models, LGBTQ curriculum, and professional learning for their educators to support all of these elements. In this session, three LGBTQ-supportive presenters share empirical, professional, and personal data to indicate how their countries are assisting gifted LGBTQ youth. Hear this first-ever session on diverse international perspectives on a population that is increasingly becoming heard!

S3.8.2 Adapting Tests for Different Cultures

Ahmed Mohamed United Arab Emirates University United Arab Emirates

C. June Maker University of Arizona United States

Hala Elhoweris United Arab Emirates University United Arab Emirates

The purpose of this symposium is to describe methods for adapting tests created in one language or culture so they are valid and reliable assessments of children who speak a different language and are from a different culture. Many tests developed in the United States have been translated, administered, and normed. Appropriate and valid adaptation involves a longer and more comprehensive process. Researchers who have translated and adapted assessments developed in the USA for use in Gulf Coast countries in the Arabic language will describe the processes they used to translate and adapt performance-based and norm-referenced assessments.

S4.6.2 Specialized Schools for Talent Development: Delivering an Advanced Education Program

Bronwyn MacFarlane University of Arkansas at Little Rock United States

Julia Roberts
Western Kentucky University
United States

Christina Amspaugh University of Virginia United States

Nancy Hertzog University of Washington United States

Kristina Ayers Paul Lower Merion School District United States

This panel-based session will provide a cutting edge discussion about the best practices for delivering specialized educational programs for high ability learners. Participants will listen to experts in the field discuss specific elements critical to the design and implementation of specialized schools and specialized programs for advanced students. The panelists will present a set of research-based talks about planning and differentiating learning experiences in specialized settings.

Come enjoy listening to the members of this esteemed panel discuss both theoretical and practical concerns in gifted education programming for talented and advanced students.

S4.6.5 Student Voices: Attending a State-Wide Residential STEM High School on a University Campus

Lynette Breedlove The Gatton Academy of Mathematics and Science United States

Julia Roberts
The Gatton Academy of Mathematics
and Science
United States

Zack Ryle
The Gatton Academy of Mathematics
and Science
United States

A state-wide residential high school on a university campus offers access to all the academics a high ability student could want while living within a community designed for high school students. It's the perfect model for meeting the academic, social, and emotional needs of gifted and talented and high ability students. Hear directly from program students, its founder, and the school director. Participants will have the opportunity to ask questions of all the panelists to gain ideas to implement in other school environments, as well as what is required to pursue establishing a similar program in their area.

S4.6.9 On Human Potential: Nurturing Talents, Cultivating Expertise

Sandra Kay United States

Rena Subotnik American Psychological Association United States

Laurie Croft

The Connie Belin & Jacqueline N. Blank International Center for Gifted and Talented Development United StatesStudent strengths and talents are displayed in every classroom. Communicating these observations as report card comments provides a snapshot of what each student does well, addressing a 21stcentury requirement and providing a scaffold for all educators to participate in gifted and talented education. Empowered with research-based behavioral checklists in six talent areas, teachers can identify sparks of potential on a Talent Profile. Here the arts, athletics, academics, creativity, leadership, and psychomotor/ kinesthetic abilities are physically on the same page and measure achievements with the same scale. This cumulative K-12 Talent Record of behaviors and achievements invites collaboration among everyone interested in advancing human potential.

S4.8.2 Grade-Skipping, Subject Acceleration, and Early Entrance to Kindergarten: Developing Academic Acceleration Policies

Ann Lupkowski-Shoplik University of Iowa Belin-Blank Center United States

Wendy Behrens Minnesota Department of Education United States

Susan Assouline University of Iowa Belin-Blank Center United States

Acceleration is a well-documented success story. State and local acceleration policies help us to make fair, consistent decisions about student placement and to give appropriate credit for work completed. Presenters will discuss revised guidelines for developing whole grade, single subject,

and early entrance to kindergarten acceleration policies. Sample policies and a discussion of policy implementation will be included, as well as the rationale for implementing these research-based policies in international settings. Presenters will share three different perspectives on acceleration, indicate why acceleration policies are important, and lead small group discussions.

S4.8.5 The Role of Mentoring for Talent Development and Excellence

Heidrun Stoeger University of Regensburg Germany

Rena Subotnik American Psychological Association United States

Barbara Kerr University of Kansas United States

Laura Lunsford Campbell University United States

Implications for the practice of mentoring will be discussed in light of four presentations. Kerr examines how gifted girls can become patented inventors in STEM (science, technology, engineering, and mathematics). Stoeger and colleagues describe longitudinal research on effective online mentoring for talented girls in STEM. Subotnik investigates how mentors transform talented youth into creative producers. Finally, Lunsford uncovers various populations' affective reactions to mentoring.

S4.8.9 Dreams Deferred: Access, Equity, and Missing Children in Gifted Education Across the United States

Marcia Gentry Purdue University United States Gilman Whiting Vanderbilt University United States

Nielsen Pereira Purdue University United States

Anne Gray Purdue University United States

The United States is often viewed as a leader in gifted education. Our recent analyses on equity and access to gifted education paint a different picture when we consider children who (1) attend Title 1 Schools; (2) come from American Indian/Alaska Native, Black, Latinx, or Native Hawaiian/ Pacific Islander families; (3) have Limited English Proficiency; and/or (4) receive Special Education services. Additionally, equity and access vary widely across the states. In this session, we examine census data from the Office of Civil Rights from the years 2000 to 2016 for equity and access and estimate numbers of children missing from gifted education.

S4.9.2 Gifted Teens and College-Level Research: Factors in their Success

Manashri Bhor East Ridge High School United States

Anish Kulkarni Wayzata High School United States

Amogh Kulkarni Wayzata High School United States

Terry Friedrichs Friedrichs Education United States

Devesh Bhor East Ridge High School United States Despite an increase in rigorous high school classes, especially those featuring left-brain instructional methods and "correct answers," there remain relatively few college-level independent research opportunities. Gifted teens can conduct such inquiries successfully, as seen with these four high school researchers who recently investigated such disparate matters as teen eating habits in Norway, the US-Russia Arms Control Treaty of 1987, 2000 years of architectural history in Paris, and highly sensitive mobility apps for students with visual impairments. Presenters will describe the opportunity, professional mentoring, and discovery of helpful research methods. A veteran researcher will also describe how these youths' work represents national trends of quality, independent, gifted teen research.

S4.9.8 Parenting for High Potential: Essential Caregiving Strategies for Nurturing the Whole Gifted Child

Janette Boazman University of Dallas United States

Tracy Inman
University of Western Kentucky
United States

Michele Kane Northeastern University United States

Kathy Nilles NAGC United States

Effective parenting and caregiving for gifted and talented children far exceeds meeting just their academic needs. Gifted individuals reach their full potential when there is an understanding and nurturing of the whole gifted child including their emotional, social, physical, and academic identities. Topics in this presentation cover Sayler's model of

Gifted and Thriving as one framework for research and holistic development; friendship and character development for the gifted; practical approaches and strategies related to parenting; strategies to enhance relationships and the spiritual dimension; resources; and strategies beyond the classroom such as enrichment, the arts, clubs, family, parent groups, and advocacy.

S5.6.2 Performance Based Assessments to Identify Gifted and Talented Students

Ketty Sarouphim-McGill Lebanese American University Lebanon

Abdulnasser AlHussaini Jeddah University Saudi Arabia

C. June Maker University of Arizona United States

Randal Pease University of Arizona United States

Four researchers and practitioners who have developed and studied performance assessments, their usefulness, and their results for identifying gifted students and identifying the strengths of all children will present examples of performance assessments of 10 different abilities These abilities include STEM (science, technology, engineering, and mathematics), other academic areas such as oral and written language (administered bilingually in the children's home language and English), leadership (social, emotional, and ethical), and the creative arts (visual, bodily, and auditory). The presenters will include the results of their research on the reliability, validity, and stability of scores across several years. They will also present cross-cultural comparisons of the strengths of the students assessed.

S5.6.5 Practical Programming for Rural Gifted Teachers and Administrators

Angela Novak East Carolina University United States

Bronwyn MacFarlane University of Arkansas at Little Rock United States

Katie Lewis York College of Pennsylvania United States

In a field constantly barraged with policy and resource setbacks, rural programs for the gifted face additional challenges that further hinder the success of delivering differentiated services for advanced learners. At the same time, programs in rural school districts have distinct strengths different from those of larger districts. In this session, we will dive into common mistakes and program limitations in rural settings and share information about how to leverage existing resources to meet the needs of gifted students and teachers. Topics will include identification, program service details, funding, and evaluation through the lenses of community, culture, and place.

S5.8.2 Acceleration: An Effective Option for the Development of Talents

Susan Assouline Belin-Blank Center United States

Ann Lupkowski-Shoplik Belin-Blank Center United States

Lianne Hoogeveen Radboud University Netherlands Laurie Croft Belin-Blank Center United States

In spite of extensive research supporting the implementation of acceleration (Hattie, 2015) schools do not use it routinely; many educators approach the concept of acceleration with grave concerns. The uncertainty often revolves around potentially deleterious social-emotional impacts of acceleration on students and possible gaps in foundational knowledge of content areas. Professionals hesitate to use options for this educational adaptation due to a lack of familiarity with the research, assuming that doing nothing is better than taking a "risk" to accelerate a student and expressing concerns about pushing children. Presenters share current acceleration research and resources

S5.8.5 Results of Four Years' Research at the National Center for Research on Gifted Education

Del Siegle National Center for Research on Gifted Education United States

D. Betsy McCoach University of Connecticut United States

E. Jean Gubbins University of Connecticut United States

Daniel Long National Center for Research on Gifted Education United States

Carolyn Callahan University of Virginia United States For four years, the National Center for Research on Gifted Education has examined identification and service practices in gifted education. During this symposium, researchers will share the status of gifted services that we found, and we will discuss which practices appear to be more or less predominant for successfully identifying and serving gifted students, especially those from historically underserved groups. Our work shows that underserved populations are still under-represented in gifted programs, but pockets of excellence exist. We will share potential practices to improve participation of underserved students in gifted programs and suggestions for future research in this area.

S5.9.2 Establishing and Fostering Positive Partnerships: Collaboration and Twice/Multi-Exceptional Children

Kimberley Perry Australia

Melinda Gindy Gifted Families Support Group Australia

Bek Duyckers Imaginarium at Perth College Australia

Carolyn Prince Education Queensland Australia

Students who are twice/multiexceptional (2e) often have diverse learning needs. The very nature of these needs means that 2e students can be overlooked in gifted education programs and extension opportunities. Supporting, nurturing, and engaging these students throughout their educational journeys demands focused attention on their cognitive abilities while making adjustments and providing appropriate remediation for their learning disabilities. Delivered through a multi-media format, this symposium will utilize evidence-informed practices and case studies to explore ways in which all stakeholders, including teachers, parents, allied health professionals, and students, can collaborate to achieve the best outcomes for 2e students.

S5.9.5 Supporting Potentially-Gifted Learners in the Early Years (Birth Through Age 5) Across the World

L. Kathleen Casper Florida Association for the Gifted United States

Margaret Sutherland University of Glasgow United Kingdom

Dagmar Bergs-Winkels University of Applied Sciences Hamburg Germany

Jo Dean University of Melbourne New Zealand

Andrea Delaune University of Canterbury New Zealand

Early childhood experts from multiple nations and continents discuss efforts in their countries (USA, Germany, Scotland, New Zealand,) to identify and support high ability, potentially gifted early learners (from birth through age five), including potentially gifted students from special populations with unique needs such as foster children, orphaned children, and children experiencing homelessness; children in minority racial groups; children from families of low socioeconomic status: children in crisis or who have experienced trauma; and twice-exceptional children.

Sponsors

BAG SPONSOR



LANYARDS & NAME BADGE SPONSOR



KEYNOTE SPONSORS

Camilla Benbow



VANDERBILT
PROGRAMS FOR
TALENTED YOUTH
VANDERBILT VUNIVERSITY

Sheyla Blumen



Lannie Kanevsky



Paula Olszewski-Kubilius, Rena Subotnik, & Frank Worrell



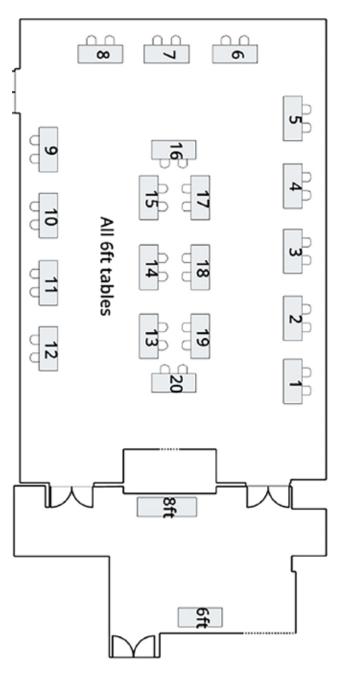
Melinda Webber



Albert Ziegler



Exhibitors



- Western Kentucky University, Center for Gifted Studies
- 2. Future Problem Solving Program International
- 3. Renzulli Learning
- 4. Center for Talent Development, Northwestern University
- Belin-Blank Center for Gifted Education and Talent Development
- 6. Kendall Hunt Publishing Company
- 7. Bridges Education Group
- 8. Troy University College of Education
- 9. Prufrock Press Inc.
- Davidson Institute for Talent Development
- 11. Center for Talented Youth JHU
- 12. Vanderbilt University
- 13. Knowsys Educational Services, LLC
- 14. Jodie Mahony Center for Gifted Education
- 15. Midtown International School
- 16. Multi Health Systems
- 17. Nathan Levy Books, LLC
- 18. giftEDnz: The Professional Association for Gifted Education
- Duke University Talent Identification Program
- 20. WCGTC 2021 World Conference

Affiliates

Affiliated Federations

- Asia-Pacific Federation on Giftedness
- ECHA (European Council for High Ability)
- Ibero-American Federation (FICOMUNDYT)

Affiliated Organizations

- Al Alfi Foundation, Egypt
- Association for Gifted and Talented Education Victoria (AGATEVic)
- 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 (AAEGT)
- The Center for Gifted Studies at Western Kentucky University
- Centro de Atención al Talento (CEDAT), Mexico
- Centro para Altas Capacidades de Jalisco (CEPAC), Mexico
- Chinese Culture and Education Center
- 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
- Hamdan Bin Rashid Al Maktoum Foundation for Distinguished Academic Performance
- The Hong Kong Academy for Gifted Education
- Nokhbegan International Talent & Creativity Development Institution
- Okyanus Eğitim Kurumları (Turkey)
- Professional Association for Gifted Education (giftEDnz), New Zealand
- Queensland Association for Gifted & Talented Children (Australia)
- The Republican Scientific Center "Daryn" of the Ministry of Education and Science of Republic of Kazakhstan
- Russian Union for High Ability and Talent
- Stepnet Onlus (Supporting Network for the Development of Talent, Emotions and Potential) (Italy)
- Talentos UdeC (Chile)
- Turkish Gifted and Talented Education, Culture, Health, Superior Foundation and College (TÜZYEKSAV)

Delegates

- Australia: Carmel Meehan, Margaret Plunkett, Michelle Ronksley-Pavia, Susan Knopfelmacher (Alternate)
- · Bangladesh: Zahirul Islam
- Brazil: Jane Farias Chagas Ferreira, Daniela Vilarinho-Rezende, Maria Lucia Sabatella, Eunice Soriando de Alencar (Alternate)
- Canada: Bruce Shore, Andree Therrien
- · Columbia: Seth Jager
- Costa Rica: David Bolaños
- Czech Republic: Eva Vondrakova, Stansilav Zelenda
- Denmark: Ole Kyed
- Ecuador: Fanny ALencastro, Daniela Ayora
- Egypt: Nermeen Abou Gaza, Yasmin Hussein
- Estonia: Viire Sepp
- Finland: Sonja Laine
- Germany: Christian Fischer, Annette Heinbokel, Klaus Urban
- Greece: Sofia Theodoridou, Konstantinos Koutsantonis
- Hong Kong China: Mantak Yuen, Anna Hui, Ricci Fong
- India: Tarika Sandhu, Shilpa Spoorthy
- Ireland: Leslie Graves
- Israel: Naama Benny
- Jamaica: Viviene Deokoro
- · Japan: Yukiko Sakai, Manabu Sumida
- Jordan: Janette Wakileh, Surayya Ayyad
- Lebanon: Nidal Jouny, Anies Al-Hroub
- · Malaysia: Jeffery Macraild

- Mexico: Andrew Almazan, Zayda Accevo
- The Netherlands: Desiree Houkema, Hans van Elten, Eleonoor Van Gerven
- New Zealand: Lynn Berresford, Brooke Trenwith, Deborah Walker, Graeme Miller (Alternate)
- Norway: Jan terje Bakler
- · Oman: Ahmed Mohamed
- Peru: Manuel Rodríguez
- Poland: Wieslawa Limont, Malgorzata Sierszenska-leraczyk
- Portugal: Alberto Rocha
- Romania: Dorothea Ionescu
- Singapore: Kwee Hoe Lim, Letchmi devi Ponnusamy
- Slovenia: Mojca Juriševič, Mojca Kukanja gabrijelcic
- South Africa: Philip Kokot
- South Korea: Moon Ehun-shik, Kyunghwa Lee
- Spain: Juan Alonso Bravo, Yolanda Benito Mate, Leopoldo Carreras-Truñó, Flavio Castiglione Mendez (Alternate)
- Sweden: Elisabet Mellroth, Caroline Sims
- Switzerland: Jean-Jacques Bertschi, Salome Mueller-Oppliger, Victor Mueller-Oppliger
- Turkey: Marilena Leana-tascilar, Sevgi birsel Nemlioglu, Adviye pinar Konyalioglu
- USA: Wendy Behrens, Shelagh Gallagher, Ann Robinson, Bob Seney (Alternate)
- Uruguay: Susana Graciela Pérez Barrera
- · Vietnam: Minh Kim

Friends List (2017-2019)

We would like to express our gratitude to the following individuals for recently giving to the WCGTC scholarship fund either directly or through purchasing a silver, gold, or platinum membership. These donations make it possible to provide more opportunities to interested individuals around the globe to join us at the World Conferences. For more information about giving to the scholarship fund, visit www.world-gifted.org/give.

- Queeniva Bilola (Cameroon)
- Dina Brulles (United States)
- Sarah Bryce (Australia)
- Julie Buntz (Australia)
- Alla Cehbotareva (Switzerland)
- Paula Christensen (United States)
- Tyler Clark (United States)
- Pamela Clinkenbeard (United States)
- Connie Cude (United States)
- Nancy Dinar (Indonesia)
- Vicki Edwards (United States)
- Marlis Eeg (Switzerland)
- Shelagh Gallagher (United States)
- Theodore Gillette (United States)
- Mary-Anne Haines (Australia)
- Ellen Hampson (New Zealand)
- Roslyn Heywood (Australia)
- Kerry Hodge (Australia)
- Eric Iyayi (Nigeria)
- Monique de Kermadec (France)
- Minh Kim (Vietnam)
- Susan Knopfelmacher (Australia)

- Konstantinos Koutsantonis (Greece)
- Joi Lin (United States)
- Justine López (United States)
- Carmel Meehan (Australia)
- Brett Monnard (United States)
- Susan Nikakis (Australia)
- Megan Parker Peters (United States)
- Dunia Elvir Procida (United States)
- Dana Reupert (United States)
- Arnfinn Rismoen (Denmark)
- Sylvia Rimm (United States)
- Julia Link Roberts (United States)
- Ann Robinson (United States)
- Valerij Romel (United Kingdom)
- Bob Seney (United States)
- Yukiko Sakai (Japan)
- Fiona Smith (Australia)
- Yvonne De St. Croix (United States)
- Kyoko Taguchi (Japan)
- Vicki Tweedale (Australia)
- Klaus Urban (Germany)
- Frank Worrell (United States)

Dear Colleagues,

The WCGTC Executive Committee is excited to invite you to attend the 24th Biennial World Conference that will be hosted in Dubai, UAE. The mission of the WCGTC is to focus on developing the future of gifted education. The world conference creates a space where



individuals can discuss and share future visions in improving the quality of educating gifted and talented children worldwide.

Attendees will enjoy keynotes, parallel sessions, symposia, and workshops delivered by international experts in gifted education and talent development. We encourage all researchers, educators, practitioners, psychologists, parents, among others interested in the needs of gifted learners to come to Dubai.

We look forward to welcoming you to Dubai, UAE, during August 1-5, 2021.

www.worldgifted2021.com







Contribute to the WCGTC community!

CO-EDITORS

Leonie Kronborg

Monash University

Megan Foley-Nicpon

University of Iowa

ASSOCIATE EDITORS

Barbara Kerr University of Kansas

C. June Maker
University of Arizona

Nielsen Pereira

Purdue University

Franzis Preckel

University of Trier

Ann Robinson

University of Arkansas at Little Rock

Gifted and Talented International

THE OFFICIAL JOURNAL OF THE WORLD COUNCIL FOR GIFTED AND TALENTED CHILDREN

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. Its purpose is to share current theory, research, and practice in gifted education with its audience of international educators, scholars, researchers, and parents.

GTI publishes original research, theoretical studies, systematic literature review papers or accounts of practice. Integrative literature reviews and theoretical pieces that appreciate empirical work are welcome. Topics include:

- development, personality and individual differences, affect and motivation, social behavior and cross-cultural issues in relation to giftedness, talent, and creativity;
- identification, education, and fostering of giftedness, talent, and creativity;
- teacher education and professional development;
- curriculum development and implementation, research on instructional strategies, and school interventions, and evaluations of programs and services;
- twice-exceptionality; and
- counseling issues.

Gifted and Talented International is the official journal of the **World Council for Gifted and Talented Children (WCGTC)**, a worldwide non-profit organization that provides advocacy and support for gifted children 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. For more information about **WCGTC**, visit: **www.world-gifted.org**.

INTERESTED IN PUBLISHING IN GIFTED AND TALENTED INTERNATIONAL?

GTI is published twice each year and uses a double-blind, anonymous peer review process based on initial editor screening.

For complete details on submitting a manuscript, please visit www.tandfonline.com/UGTI and click on the "Submit" tab.

All manuscripts should be submitted via the ScholarOne site https://mc.manuscriptcentral.com/GTI

Direct questions to Dr. Leonie Kronborg at Leonie.Kronborg@monash.edu