



River Valley High School
Pedagogical Excellence Academy Symposium 2021

Nurturing Future-Ready Leaders

Virtual 27 January 2021

Pedagogical Excellence Academy Symposium 2021	
Theme:	Nurturing Future-Ready Leaders
Date:	27 January 2021, Wednesday
Time:	12:50 pm to 4:40 pm
Venue:	Virtual Symposium via <ul style="list-style-type: none"> ● Zoom Webinar for Opening, Welcome and Keynote Addresses ● Zoom Meeting for Concurrent Sessions

Programme Schedule:

Time	Programme
12:00 pm – 12:50 pm	Registration All RVHS Staff and Guests log into Zoom Webinar Please note: The Webinar will be recorded by the host for reviewing and archiving purposes.
12:50 pm – 1:00 pm	Administrative briefing
1:00 pm – 1:20 pm	Opening and Welcome Address
1:20 pm – 2:35 pm	Keynote Address <i>Professor Tanya Fitzgerald & Dr Fiona Mayne, University of Western Australia</i>
2:35 pm – 2:45 pm	All RVHS Staff and Guests log into Zoom Meeting with full name and school registered for Concurrent Session A and will be admitted into the Meeting Room after the verification process is completed.
2:45 pm – 3:40 pm	Concurrent Session A
3:40 pm – 3:45 pm	Log into Zoom Meeting with full name and school as registered for Concurrent Session B
3:45 pm – 4:40 pm	Concurrent Session B
4:40 pm	End of Symposium

Please note: Further details on Zoom Webinar/Meeting links will be shared with the attendees at a later date.

Keynote Speakers:

Professor Tanya Fitzgerald



Dr Tanya Fitzgerald is Professor of Higher Education and Dean of the Graduate School of Education at the University of Western Australia. In her early career, Tanya was a secondary school teacher (History) and Dean of Students, and predominantly worked in low socio-economic schools. Over the past twenty years Tanya has held leadership roles in universities in New Zealand, England and Australia. She is a strong advocate for public education, social justice and ethical leadership. Tanya has published 11 books and over 100 book chapters and journal articles, has delivered keynotes to national and international audiences and is a regular commentator on social media.

Dr Fiona Mayne



Dr Fiona Mayne is a lecturer in the Graduate School of Education at the University of Western Australia, specialising in technology education, and child development and pedagogy. Fiona's research focuses on young children's rights, voice and agency in research, digital influences on children's learning, and the use of mixed reality in pre-service teacher education. Her 2018 research, the Hierarchical Model of Children's Research Participation Rights, has been translated into German and is currently being used in a number of German universities in their initial teacher education programs. Fiona is the recipient of a prestigious international student research award by the European Early Childhood Education Research Association.

Keynote Title:

Leadership Matters: Leading Learning and Leading Teachers in 21st Century Schools

The first part of the keynote address will focus on leadership in schools. Professor Fitzgerald will give an overview of leadership and argue for the importance of educational leadership. She will discuss how leadership can be enacted across schools, the critical role of teachers as leaders of learning and the challenges of the 21st century classroom. Professor Fitzgerald will invite the audience to consider three particular forms of leadership: organisational, cultural and pedagogical and implications for their own professional practice.

The second part of the keynote address will explore children's voice and agency in school settings and the impact of leadership. Dr Mayne will give an overview of the pedagogical relationship between children and teachers and illustrate how children's agentic rights can be balanced with their needs as children. This will be examined in the context of 21st century education trends. She will consider interdependencies and tensions that frame the realisation of child agency and the critical role teachers play in enhancing or restricting voice and agency. Dr Mayne will invite the audience to consider how integration of concepts of voice and agency might enhance their professional practice and student learning outcomes.

Concurrent Session A

2:45 pm to 3:40 pm

School Excellence Model Promising Practice	Teaching & Learning		
For Junior College/Secondary School /Primary School Middle Managers	For Junior College/Secondary School Teachers	For Secondary School Teachers	For Secondary School/Primary School Teachers
<p>A1 River Valley High School School Excellence Model Promising Practice Student Leadership Empowering Student Leaders – Within and Beyond the School</p>	<p>A3 River Valley High School Teaching & Learning Economics Redesigning Lectures to Nurture the Joy of Learning</p>	<p>A7 River Valley High School Teaching & Learning Biology Use of Physical Models in Teaching, Learning & Assessment</p>	<p>A13 Bukit Panjang Primary School & Westwood Primary School Teaching & Learning Science Harnessing A Blended Learning Environment to Make Thinking Visible in Primary Science Classrooms</p>
<p>A2 River Valley High School School Excellence Model Promising Practice Construct Integrate Differentiate (CID) Programme Learn for Life – Redesigning a Curriculum for Future-Ready Leaders</p>	<p>A4 River Valley High School Teaching & Learning Mother Tongue Languages Systematic Development of Students’ Oracy Skills in H1 MTL Using Culture of Thinking Routines</p>	<p>A8 River Valley High School Teaching & Learning Literature in English Poetry with He(ART)</p>	<p>A14 Henry Park Primary School & Qifa Primary School Teaching & Learning Science Exploring Blended Learning to Support Inquiry-Based Learning</p>
	<p>A5 River Valley High School Teaching & Learning Physical Education Differentiated Instructions through the Lens of Non-linear Pedagogy (NLP)</p>	<p>A9 River Valley High School Teaching & Learning Mathematics Active Learning in Future Mathematics “Classrooms”</p>	<p>A15 Princess Elizabeth Primary School Teaching & Learning English Language Applying Metacognitive Processes in the Teaching of Stimulus-based Conversation</p>
	<p>A6 River Valley High School Teaching & Learning Cultures of Thinking Creating Cultures of Thinking: The RV Way</p>	<p>A10 Bukit Batok Secondary School Teaching & Learning Art Using Script to Guide Students to Develop Their Visual Ideas</p>	
		<p>A11 Bukit Batok Secondary School Teaching & Learning Geography Use of Manipulatives in the Teaching of Plate Tectonics in Geography</p>	
	<p>A12 Fuhua Secondary School Teaching & Learning ALP Forensic Science Forensic Science Applied Learning Programme @Fuhua Secondary School</p>		

Concurrent Session B

3:45 pm to 4:40 pm

School Excellence Model Promising Practice	Teaching & Learning		
For Junior College/Secondary School /Primary School Middle Managers	For Junior College/Secondary School Teachers	For Secondary School Teachers	For Secondary School/Primary School Teachers
<p>B1 River Valley High School School Excellence Model Promising Practice Management of Support Resources Future-Ready School Resource Stratagem @ River Valley High School</p>	<p>B4 River Valley High School Teaching & Learning Geography Beyond See Think Wonder</p>	<p>B8 River Valley High School Teaching & Learning Chemistry Applying Modelling Instruction to Develop Students' Attitudes, Skills and Knowledge (ASK) in Chemistry</p>	<p>B12 Fuhua Primary School , Lakeside Primary School, Princess Elizabeth Primary School & Shuqun Primary School Teaching & Learning Science Mapping Towards a Successful Curriculum Leadership in Primary Science – an W7 Experience</p>
<p>B2 River Valley High School School Excellence Model Promising Practice Staff Learning and Development Future-Ready @ RVHS Professional Development</p>	<p>B5 River Valley High School Teaching & Learning Mathematics Mathematical Modelling with Thinking Tools</p>	<p>B9 River Valley High School Teaching & Learning Mother Tongue Language Reflective Self-Assessment for Purposeful Learning</p>	<p>B13 Jurong West Primary School, West View Primary School & Jurong Primary School Teaching & Learning Science Curriculum Maps</p>
<p>B3 River Valley High School School Excellence Model Promising Practice SAP Programmes Nurturing Future Ready Bicultural Leaders</p>	<p>B6 River Valley High School Teaching & Learning Physical Education Motivation and Challenges: JC Students Engagement in Moderate-to-Vigorous Physical Activity during their Free Time</p>	<p>B10 River Valley High School Teaching & Learning Construct Integrate Differentiate (CID) Programme Learning for Life through Empathy Masterclass</p>	<p>B14 Nanyang Primary School Teaching & Learning Science Blended Learning – The Best of Both Worlds</p>
	<p>B7 Fuhua Secondary School Teaching & Learning Biology & Physics Differentiated Instruction through Play and Creation</p>	<p>B11 Bukit Batok Secondary School Teaching & Learning History Empowering Students to Discover and Construct Community Heritage</p>	<p>B15 Princess Elizabeth Primary School Teaching & Learning Mother Tongue Languages Sharing of Good HBL Practices in MTL Department - Pictorial Composition</p>

Synopses

Concurrent Session & Time	School	Category	Subject /Area of focus	Target Audience	Title of Presentation	Synopsis	Team/Presenters
A1 2:45 pm - 3:40 pm	River Valley High School	School Excellence Model Promising Practice	Student Leadership	For Junior College/Secondary School /Primary School Middle Managers	Empowering Student Leaders – Within and Beyond the School	<p>Empowerment is central to the school's belief in student well-being and development. The school's shared value of people-centricity is exemplified in our school curriculum philosophy: we believe all students can achieve individual excellence. Our mission – to empower students to be thinkers, leaders and achievers – steers the school to create an environment for student empowerment and multiple pathways for students to achieve different peaks of excellence.</p> <p>How might we enable students to take ownership of their school experience through a variety of decision-making processes?</p> <p>To nurture student empowerment, we inspire our students to confront the three dares – (i) Dare to dream, (ii) Dare to let go, and (iii) Dare to try. The presenters will share how student development experiences are utilised to encourage student empowerment within and beyond the school.</p> <p>Through a sharing, participants will take away ideas of how they could adapt these strategies in their student leadership development journey.</p>	Ms Tan Lay Kwan Hannah Ms Khaw Kai Yim Mr Joel Koh Mr Eddy Razali Nazri
A2 2:45 pm - 3:40 pm	River Valley High School	School Excellence Model Promising Practice	Construct Integrate Differentiate (CID) Programme	For Junior College/Secondary School /Primary School Middle Managers	Learn for Life – Redesigning a Curriculum for Future-Ready Leaders	<p>In line with the school's vision and mission to develop future-read leaders, the Construct Integrate Differentiate (CID) programme seeks to prepare students for lifelong learning and to take on challenges with confidence.</p> <p>Building on strengths of project-based learning and Wagner's concept of Play, Passion, and Purpose, the CID curriculum was redesigned to allow students to grow their passion into strengths, giving them a head start in exploring their career aspirations. To strengthen continuous improvement, professional learning structures that incorporate design thinking were put in place to enhance reflective and collaborative learning amongst teachers, and promote a culture of excellence and innovation.</p> <p>In this session, presenters will share their journey towards curriculum excellence through evidence-based review and how they build the capacity and culture amongst staff over the years.</p>	Mr Tan Ching Ms Ng Wang Khee Carine
A3 2:45 pm - 3:40 pm	River Valley High School	Teaching & Learning	Economics	For Junior College/Secondary School Teachers	Redesigning Lectures to Nurture the Joy of Learning	<p>While lectures tend to be regarded as an efficient way of transmitting information, many people question its effectiveness as a mode of learning, despite it taking up a significant proportion of the curriculum hours. In view of MOE's increasing emphasis on thinking and joy of learning, the department set out to redesign our lectures to improve its effectiveness. Specifically, carefully-designed activities are being integrated at different intervals of the lecture to help students to be 'present', as well as provide them opportunities to process and apply concepts taught. At the same time, assistance is at hand to help them construct their own knowledge and thinking. This integration of activities is further supported by other initiatives to ensure lectures are effective in nurturing the joy of learning.</p>	Mr Tan Kay Song Ms Tee Lay Hoon Ms Lee Wei Min Mr Koh Joel Ms Chew Ji Rong

						<p>The presenters will share their experience gleaned from the whole redesign process, as well as bring participants through a short snippet of how such a lecture 'looks and feels'. We will also show quantitative and qualitative feedback given by the students. While our project mainly focuses on JC lectures, the learning points gleaned can be applicable to a typical secondary school classroom setting.</p>	
A4 2:45 pm - 3:40 pm	River Valley High School	Teaching & Learning	Mother Tongue Languages	For Junior College/Secondary School Teachers	Systematic Development of Students' Oracy Skills in H1 MTL Using Culture of Thinking Routines	<p>In the preparation leading up to the H1 MTL Oral Examination (OE) in July 2020, we applied two CoT routines "See-Think-Wonder" and "What Makes You Say That" to develop students' critical thinking and oracy skills.</p> <p>The team carried out the research project in three stages. Stage 1: Pre-Test (T1W8), Stage 2: Teaching Process (T2W1-T3W1), Stage 3: Post-Test (T3W2). In Stage 1, we conducted an internal OE on selected students to identify their entry levels. In Stage 2, we introduced the two thinking routines to reduce students' learning gaps. An individual oral practice was conducted for all students in T2W3. In Stage 3, we conducted a final internal OE. Our research observed a significant improvement in students' ability to note down pertinent points and provide substantiation, and being flexible in organising speech content.</p> <p>The presenters will share lesson resources and research data (audio recordings, transcripts, assessment results) to illustrate students' outcome.</p>	Ms Ho Fui Fang Ms Huang Liling Mdm Nur A'in Bte Mohamad Mdm Lam Wan Mr Lee Boon Yeow
A5 2:45 pm - 3:40 pm	River Valley High School	Teaching & Learning	Physical Education	For Junior College/Secondary School Teachers	Differentiated Instructions through the Lens of Non-linear Pedagogy (NLP)	<p>This session will focus on the use of NLP strategies in classroom to allow students to explore and learn various skills of games.</p> <p>Due to an increase of diverse learners in the classroom, there is a need to explore different ways to engage and cater to these learners.</p> <p>The Nonlinear Pedagogy (NLP) approach considers the performer, task and environment. It is also aligned to the Differentiated Instruction's (DI) principles. This session explores the use of various teaching models like NLP, as a pedagogy to differentiate instructions. This will allow learners to understand the concepts and skills involved in learning a game.</p> <p>Lesson ideas and game-like activities for net-barrier games will be shared in secondary school and JC context, and participants will see how DI can be enacted in the classroom.</p> <p>Through this sharing, participants will take away lesson ideas on how activities can allow students to explore and learn new skills.</p>	Mr Koh Suan Lam
A6 2:45 pm - 3:40 pm	River Valley High School	Teaching & Learning	Cultures of Thinking	For Junior College/Secondary School Teachers	Creating Cultures of Thinking: The RV Way	<p>This session provides an in-depth view of RVHS's journey in cultivating a culture of thinking.</p> <p>Through a detailed presentation comprising project design, survey results, and artefacts, participants will learn about the RV approach based on Ron Ritchhart and Harvard Project Zero's work. Beginning with catalyst classrooms as testbeds in 2015, teachers learned the concepts from Ritchhart's Cultures of Thinking and</p>	Mr Eugene Sng Ming Liang Ms Yang Huilin

						<p>applied them in their teaching. CoT was then scaled up to a whole-school approach. Consequently, departments took charge of integrating cultural forces into their teaching and learning to align thinking skills with disciplinary thinking.</p> <p>In the most recent iteration, the approach evolved to emphasise professional development. This took the form of a more decentralized, classroom or team-based approach to enhance teacher proficiency and rapport, utilising a modified toolbox based on Harvard Project Zero's Snapshot Protocol.</p> <p>Presenters will share artefacts from this ongoing project. Participants can take away ideas for their own modification and pose questions on RVHS's experience.</p>	
A7 2:45 pm - 3:40 pm	River Valley High School	Teaching & Learning	Biology	For Secondary School Teachers	Use of Physical Models in Teaching, Learning & Assessment	<p>This session will focus on the use of physical models in teaching, learning & assessment in the biology classroom.</p> <p>Through a detailed sharing of lesson activities carried out in the biology classroom involving the use of physical models and a newly developed thinking routine, participants will see how these activities helped students enhance their understanding of biology concepts. Results from a survey conducted also showed that students demonstrated increased engagement levels when model building was introduced as it helped them visualize new concepts. In addition, building and presenting their models in class made students' thinking highly visible and facilitated the teachers' checking of students' understanding. This provided opportunities for the teacher to provide timely and specific feedback to students on their concepts and their 21st century competencies.</p> <p>The presenters will share sample lesson resources and students' work while taking participants through the approach used.</p>	<p>Ms Kasturi R Ms Lin Zhiyi Ms Bon Poh Ee Claire Mr Lio Zong Long Ivan Mr Chow Ban Hoe Mr See Kah Woon</p>
A8 2:45 pm - 3:40 pm	River Valley High School	Teaching & Learning	Literature in English	For Secondary School Teachers	Poetry with He(ART)	<p>This session will explore how learning journeys to museums can be used to broaden students' cultural capital and to strengthen their individual literary skills.</p> <p>Through a detailed sharing on a 3-stage (pre, during, and post-trip) learning journey package, participants will learn how learning journeys can be infused into the Literature curriculum. An innovative fusion of poetry and visual art analysis is taught in class, followed by a learning journey to the National Gallery Singapore. There, students analyse poetry based on visual artworks, and discuss the elements of a good poem. Finally, students are tasked to write and reflect on their own poems. Observable student outcomes include improved literary analysis skills and a greater awareness of global contexts.</p> <p>Presenter will share sample lesson resources and participants will take away ideas on how they can implement this in their own schools.</p>	<p>Ms Jasmyn Lim Zhimin</p>
A9 2:45 pm - 3:40 pm	River Valley High School	Teaching & Learning	Mathematics	For Secondary School Teachers	Active Learning in Future Mathematics "Classrooms"	<p>This workshop will showcase some highlights from the team's journey in designing and implementing strategies to support active learning in Mathematics "classrooms" of the future. Curriculum-aligned videos centred around real-life problems were created to spark interest and promote discussion. These videos feature teacher facilitation questions, crafted following Bloom's Taxonomy, to make students' thinking visible. To encourage students'</p>	<p>Ms Lim Fen Niu Ms Ho Kian Ming Danielle Ms Lee Yiwei Christina</p>

						<p>self-directedness in assessing and reflecting on their learning, learning targets checklists inspired by Jan Chappuis were designed for students to identify their strengths and gaps. The process of refinement in designing the checklists will also be shared. To facilitate collaborative work, Jamboard was adopted as a tool for virtual interactions. Paired with the thinking routine Generate-Sort-Connect-Elaborate, students were involved in organising their understanding of concepts to concretise learning.</p> <p>The presenters will share sample resources and students' artefacts. Through interactive activities, participants will experience how students engaged in active learning beyond the physical classrooms.</p>	Mr Lim Beng Jin Desmon
A10 2:45 pm - 3:40 pm	Bukit Batok Secondary School	Teaching & Learning	Art	For Secondary School Teachers	Using Script to Guide Students to Develop Their Visual Ideas	<p>This session presents on using I.D.E.A.S as a 'script' to guide students to develop their visual ideas. This session also shares how effective questioning by planning key questions and using scripted questions can deepen students' learning.</p> <p>It is observed that students have limited ideas in their development. Most students have little or limited ideas to create their own visual ideas based on their chosen thematic question. Henceforth, focusing on the use of script, the Art unit created visual teaching aids to guide students to identify the various ways of developmental I.D.E.A.S. I.D.E.A.S. stands for Integration, Distortion, Expansion, Artist References and Stylisation to illustrate various ways to develop their visual ideas. With the references, it hopes to aid students to think flexibly and adapt many possibilities to stretch their visual ideas. From the lesson observations, teachers observed an improvement in student design thinking, engagement and motivation.</p> <p>Participants could learn creative ways to come up with a script sample for students as a guide in a particular topic. Through the sharing, participants will take away ideas of how using script can be one of the strategies used to deepen students' learning.</p>	Mdm Nadiah Binte Abdul Nasir Mr Azhar Bin Mohamad Ali Mr Marshall Tan Khoon Lim
A11 2:45 pm - 3:40 pm	Bukit Batok Secondary School	Teaching & Learning	Geography	For Secondary School Teachers	Use of Manipulatives in the Teaching of Plate Tectonics in Geography	<p>This session will focus on the use of manipulatives to help lower progress students understand plate movements and landforms. Several studies in use of manipulatives in Mathematics learning has shown that, manipulatives help students learn by allowing them to move from concrete experiences to abstract reasoning (Heddens, 1986).</p> <p>The idea of using manipulatives was applied in the teaching of plate movements. In the first lesson, the students explored landforms through Google Earth. Secondly, students used a digital simulation (PHET) to visualise plate movements. Thirdly, the teacher guided the students through using manipulatives (food items) to visualise and feel the processes and resulting landforms.</p> <p>The series of lessons with the use of manipulatives helped the students visualise and understand the concept of spatial distribution of landforms. Participants will learn how the use of manipulatives can be carried out in a Geography lesson to help lower progress learners.</p>	Mr Nikhil Nath Chatterji Mdm Jayanthi Appachamy Mdm Nur Khairunnisah Bte Abdul Jamil Ms Anita D/O Chandrasagaran

A12 2:45 pm - 3:40 pm	Fuhua Secondary School	Teaching & Learning	ALP Forensic Science	For Secondary School Teachers	Forensic Science Applied Learning Programme @Fuhua Secondary School	<p>This session will focus on the use of a 4E [Engagement, Exploration, Experimentation and Evaluation] model, adapted from the 5E Instructional model developed by the Biological Sciences Curriculum Study, in designing two cycles of ALP lessons which focus on forensic science.</p> <p>Various ICT tools and collaborative learning strategies are also incorporated in each lesson to develop 21st century competencies in students as they collaborate with one another and develop critical thinking and problem solving skills in the process. Each ALP lesson has a deliverable which comprises one of the following: mind map, infographic, oral presentation, etc which serves as an assessment of students' learning.</p> <p>Through 5 hands-on activities centred on a crime 'Elderly man found dead in a one-room flat', participants will gain insight into how each phase of the 4E model is enacted in lesson design and delivery. This session would conclude with a detailed sharing of a unit of eight lessons crafted using the 4E model - a 'Hit-and-Run Accident'.</p> <p>Participants will take away ideas on how they could adapt these strategies including the use of ICT tools and assessment rubrics in their classrooms.</p>	Mdm Hia Soo Ching Ms Huang Kexin Ms Nur Hanis Mohamad
A13 2:45 pm - 3:40 pm	Bukit Panjang Primary School & Westwood Primary School	Teaching & Learning	Science	For Secondary School/Primary School Teachers	Harnessing A Blended Learning Environment to Make Thinking Visible in Primary Science Classrooms	Sharing by Bukit Panjang Primary & Westwood Primary on re-imagining lesson design and facilitation to make students thinking visible and encourage students to take an active role in assessing their own progress as learners.	Ms Long Miaow Ying, Jennifer (Westwood Primary School) Ms Chang May Ling (Bukit Panjang Primary School) Mr Joel Ong (Westwood Primary School) Mrs Phyllis Lim (Bukit Panjang Primary School)
A14 2:45 pm - 3:40 pm	Henry Park Primary School and Qifa Primary School	Teaching & Learning	Science	For Secondary School/Primary School Teachers	Exploring Blended Learning to Support Inquiry-Based Learning	<p>Blended learning has emerged as a necessary mode of teaching and learning now.</p> <p>Henry Park Primary School (HPPS) and Qifa Primary School (QPS) will share the design considerations in designing a series of blended learning experiences to facilitate the learning of new scientific concepts and Science process skills (e.g. investigative skills) using the inquiry-based approach. Our sharing will focus on how to make learning seamless by harnessing different platforms to teach concepts and skills effectively. QPS will be sharing on how they have successfully used blended learning approach to teach the unit of Electricity and HPPS will be sharing about how they carried out their signature programme – Young Investigator Project through blended learning.</p>	Mr Mubaraq Ali S/O Peer Mohamed (Henry Park Primary) Ms Moh Choy Ying (Qifa Primary) Ms Ong Jingxuan (Qifa Primary)

A15 2:45 pm - 3:40 pm	Princess Elizabeth Primary School	Teaching & Learning	English Language	For Secondary School/Primary School Teachers	Applying Metacognitive Processes in the Teaching of Stimulus-based Conversation	<p>This session will focus on a project which the primary four English Language teachers adopted and applied the use of ‘CORE’ strategy in the answering of stimulus-based conversation questions. It is in alignment with the EL Syllabus 2020. The session will also highlight how metacognitive processes of the ‘Teaching-Speaking Cycle’ (Goh & Burns, 2012) enable students to become self-regulated learners and take ownership of their own learning.</p> <p>Research Questions: To what extent does the use of ‘CORE’ strategy enable primary four students to show improvement in answering oral stimulus-based conversation? Are there any significant differences in the stimulus-based conversation scores in term 1 and term 4 with the application of ‘CORE’ strategy?</p>	Mdm Sanmuga Malar D/O Rathakrishnan Miss Chin Sau Lai
B1 3:45 pm - 4:40 pm	River Valley High School	School Excellence Model Promising Practice	Management of Support Resources	For Junior College/Secondary School /Primary School Middle Managers	Future-Ready School Resource Stratagem @ River Valley High School	<p>Need some strategies to manage your school resources? We have two suggestions!</p> <p>#1 Having a blueprint: Guided by our school’s vision and mission, our resources are strategically planned and deployed to build cultures of Innovation, Excellence, Thinking and Care. Our Resource Management Excellence Framework is a toolkit that guides decisions on resource management to support excellence in teaching and learning.</p> <p>#2 Our DNA: We believe in continual thinking to pre-empt and respond to tomorrow’s challenges, in the quest for improvements by being: Adaptive in the acquisition and allocation of resources to adjust to changing needs in the educational landscape. Reflective in review processes with the use of data to drive systematic efforts to find innovative solutions leading to a push towards productivity gains in the face of constraints. Our processes harness technology to monitor inventories and streamlining administrative procedures to simplify workflow, thus achieving efficiency in school operations.</p>	Mr Chow Ban Hoe Mr Oh Chee Wee Ms Sophia Ying Hsu Fen Ms Fan Suet Yeng Mr Michael Ho Chee Choy
B2 3:45 pm - 4:40 pm	River Valley High School	School Excellence Model Promising Practice	Staff Learning and Development	For Junior College/Secondary School /Primary School Middle Managers	Future-Ready @ RVHS Professional Development	<p>RVHS employs a Staff Excellence Framework and uses a GEM approach to <u>G</u>row competent and effective teachers who <u>E</u>xcel as Teacher Leaders or middle managers who can <u>M</u>agnify their skills and talents as peer developers.</p> <p>Through GEM, the school strategically intervene to make staff more competent through intentional identification of local and overseas platforms such as conferences, learning journeys and/or workshops to raise the professional competencies of the different core teams. Subsequent sense-making and adaptation led to creation of school-based professional upskilling sessions. The curriculum is also re-designed and further customised so that it can better actualise the school’s vision and mission. The curriculum offers an educational experience that encompasses 21CC, Cultures of Thinking and Positive Education.</p> <p>The presenters will share how the school employs a model to better use learning journeys (e.g. local or overseas trips) to jumpstart internal change and stimulate teachers’ intrinsic/extrinsic interest. This model features in-house customised workshops to grow a distinctive school culture. In addition strategic deployment</p>	Mr William Wee Mdm Lim Lee Mui

						helped create catalyst teams to experiment, refine and accelerate adoption of pedagogical innovations such as Cultures of Thinking.	
B3 3:45 pm - 4:40 pm	River Valley High School	School Excellence Model Promising Practice	SAP Programmes	For Junior College/Secondary School /Primary School Middle Managers	Nurturing Future Ready Bicultural Leaders	RVHS strives to nurture future bicultural leaders for Singapore. Our programming is guided by PAC Framework, encapsulating the three key competencies for bicultural leaders: a) Proficiency in Chinese: RVHS provides platforms (e.g. student journalist, song-writing and radio broadcast) to Chinese language alive in school. b) Appreciation of Chinese Culture: Our Appreciation of Chinese Culture (ACC) programme draws parallels with current affairs to help RVians to see the relevance of Chinese history and culture, and to develop their sense of Singapore Chinese identity. c) Cross-Cultural Skills: To groom future bicultural leaders who can engage the East and West, all S2 students embark on Overseas Experiential Learning Programme (OELP) to China, where they develop critical thinking skills and China-savviness through a comparative study of China and Singapore. Leveraging strong partnership with alumni, local cultural institutions and Chinese IHLs, the Bicultural Leaders Academy provides leadership opportunities for students to participate/organize Chinese-related events at the school and national level. Through a sharing and presentation of the PAC framework, participants will take away ideas of how they could adapt these strategies in their school programmes.	Mdm Wan Chiew Inn Mr Loo Jiaming
B4 3:45 pm - 4:40 pm	River Valley High School	Teaching & Learning	Geography	For Junior College/Secondary School Teachers	Beyond See Think Wonder	This project focuses on a learning gap exhibited in secondary and post-secondary Geography students — a lack of skill to make analytical observations of photographs which are crucial in making relevant inferences in Geography. The ‘Beyond See-Think-Wonder’ framework empowers students with a thinking routine to scaffold geographical analysis of photographs, enabling them to translate their photo observations into writing independently. Using See-Think-Wonder as a framework, this routine is developed with scaffolding questions which were informed by principles of critical thinking, geographical disciplinary thinking and classroom data gathered through pilots and diagnostic testing of the framework. The presenters will share the process of establishing the theoretical basis and context of the design of the framework. A hands-on activity involving the proposed framework will be used to trigger conversation among participants on its effectiveness and relevance to their teaching practice in the context of Geographical education	Mr David Toh Hui Han Mr Siar Hao Ken Leonard Ms Lim En Qi Ms Anne Kang Joo Lian Ms Chee Sok Jane Mdm Zainab Banu Hassan
B5 3:45 pm - 4:40 pm	River Valley High School	Teaching & Learning	Mathematics	For Junior College/Secondary School Teachers	Mathematical Modelling with Thinking Tools	Recent review and changes in mathematics syllabi revealed that the national mathematics curriculum is going beyond just teaching content and skills. Greater emphasis is now placed in helping students appreciate the applications of mathematics to real-world problems. This is in tandem with the River Valley High	Mr Lim Bock Seng Mr Lum Chee Fai Mr Pang Chee Boon Vincent

						<p>Mathematics Department's vision in nurturing thinking students who are confident in mathematical problem-solving. The department believes that mathematical modelling (MM) is a tool that could help bridge the gap between the present way of teaching and learning and its desired outcome. Infusing MM into the curriculum will equip students with the skills to solve real-world questions and to develop their 21st century competencies. Thinking tools will equip students with good habits of mind and learning disposition.</p> <p>Participants will be introduced to the progressive infusion of MM in a 6-year mathematics curriculum and take away suggested approaches that they could try out in their own classrooms.</p>	<p>Mdm Yeo Poh Huey Ms Ho Kian Ming Danielle</p>
<p>B6 3:45 pm - 4:40 pm</p>	River Valley High School	Teaching & Learning	Physical Education	For Junior College/Secondary School Teachers	<p>Motivation and Challenges: JC Students Engagement in Moderate-to-Vigorous Physical Activity during their Free Time</p>	<p>This session will focus on understanding the JC1 students' engagement in Moderate –to-Vigorous Physical Activity (MVPA) during their free time.</p> <p>Through focus group discussions, the quantitative descriptive study provided insights to the level of physical activity engagement in our students, their perceived importance of MVPA, the challenges they faced, the impact of instructional programme on engagement of MVPA, and factors that would motivate and further engage them in MVPA.</p> <p>The insights and findings from this Action Research project would allow the department to re-view and reposition some of its current curriculum focus in support of late adolescent's active engagement in MVPA.</p> <p>Participants will have a better understanding of the contextualized challenges with each unique setting in the promotion of JC students' engagement in MVPA during their free time. The evolving Covid-19 situation has also presented ample opportunities in accelerating adoption of some measures in this matter.</p>	<p>Ms Carol Seah Ming Li</p>
<p>B7 3:45 pm - 4:40 pm</p>	Fuhua Secondary School	Teaching & Learning	Biology & Physics	For Junior College/Secondary School Teachers	<p>Differentiated Instruction through Play and Creation</p>	<p>The common challenge of Science teachers is to design and enact lessons that effectively engage and assess students' academic readiness, interest and learning profiles.</p> <p>Playful learning creates a safe environment for learning and encourages collaborative learning among students to explore multiple perspectives. Play allows differentiation through multimodal representations. The culture of play relates closely to the language used within design, of playing with ideas, playing with the rules and role-playing (Rice, 2009).</p> <p>Creation is at the apex of the revised bloom taxonomy (Armstrong, 2016). Teachers who engage students in creative tasks inherently challenges students' understanding and application of the concepts taught. Concept sketches (Ho, Wong & Rappa, 2019) and role-play (Ross & Ritchie, 2008) are effective AfL instructional strategies that will help uncover students' conceptual understanding and alternate conceptions.</p> <p>This interactive workshop provides participants with teaching strategies and samples of learning experiences that engage students through play and creation.</p>	<p>Mr Tan June Keong Owen Mr Loh Kok Wee Raymond</p>

B8 3:45 pm - 4:40 pm	River Valley High School	Teaching & Learning	Chemistry	For Secondary School Teachers	Applying Modelling Instruction to Develop Students' Attitudes, Skills and Knowledge (ASK) in Chemistry	<p>With the release of MOE's revised Science Curriculum Framework, our chemistry department pondered the implications of the framework's recommendations. As the framework points out, "the Practices of Science serve to highlight that the discipline of science is more than the acquisition of a body of knowledge; it is also a way of thinking and doing."</p> <p>This sharing will describe the department's journey in applying modelling instruction (Dukerich, 2008), where students learn how scientific models are developed in the real world.</p> <p>The results of the department's 3-year iteration of modelling instruction indicate increasing effectiveness in developing the attitudes, skills and knowledge (ASK) of our chemistry students.</p> <p>Through hands-on activities, participants will gain insights on how modelling instruction can be carried out. Specific examples to make students' thinking visible and develop their appreciation of science as a way of thinking and doing will also be shared.</p>	Ms Loh Yuhui Mr Tan Zhuhui
B9 3:45 pm - 4:40 pm	River Valley High School	Teaching & Learning	Mother Tongue Language	For Secondary School Teachers	Reflective Self- Assessment for Purposeful Learning	<p>This session focuses on encouraging self-reflection practices beyond classroom lessons and develop a habit of mindfulness post essay writing. This is to also inculcate critical thinking in assessing personal work, enabling students to see meaning and purpose in their learning. This is a project extended from the processes adopted in 2018's oral self and peer assessment. The design of reflective questions and materials enabled students to self-assess their work in a structured manner.</p> <p>Through a sharing of lesson samples and resources, participants will take away ideas of how they could adapt these strategies in their classrooms.</p>	Mr Alvin Lam Sau Yin Mdm Wan Chiew Inn Ms Ng Yee Jia
B10 3:45 pm - 4:40 pm	River Valley High School	Teaching & Learning	Construct Integrate Differentiate (CID) Programme	For Secondary School Teachers	Learning for Life through Empathy Masterclass	<p>This session will showcase the development of Empathy Masterclass, which comes under the school's Construct Integrate Differentiate (CID) programme.</p> <p>The vision of CID is to develop a learning community of future-ready value creators. To fulfill this vision, CID 3 students engage in creative problem solving to address community needs. In order to do so, the need for empathy is especially crucial. Students must be able to understand their target audience before they can come up with appropriate solutions to address them.</p> <p>In 2017, the department started the Empathy Masterclass. The class adopts an experiential learning pedagogical approach which was developed from Place-based Learning to RV Community Space Exploration.</p> <p>Through a sharing and hands-on activity, presenters will share their journey of how they develop lifelong learners who are empathetic to create value in their work.</p>	Ms Hannah Tan Lay Kwan Ms Ng Wang Khee Carine

B11 3:45 pm - 4:40 pm	Bukit Batok Secondary School	Teaching & Learning	History	For Secondary School Teachers	Empowering Students to Discover and Construct Community Heritage	<p>As teachers facilitating historical investigation in the 21st century, it is important to find ways to develop student's interest to curate history and leverage on digital tools to construct knowledge of the past. Through these lessons, students were empowered to be self-directed and confident learners to gather stories of the community and make connections to their historical significance. Using the "Find, Think, Apply and Create" approach, lessons on historical inquiry were carried out to support the creation of community heritage trails by students. Students were engaged by the focus on community heritage as they were given the opportunity to discover what was personally relevant to them.</p> <p>Participants will be able to take away ideas on the inquiry and digital literacy approach to adopt and integrate these lesson resources for use in their classrooms.</p>	Mr Er Heow Hong Jared Mr Tan Jun Tian Terence Ms Goh Zhi Qing Mdm Tong Wee Onn
B12 3:45 pm - 4:40 pm	Fuhua Primary School , Lakeside Primary School, Princess Elizabeth Primary School & Shuqun Primary School (Cluster W7 Primary Science NLC)	Teaching & Learning	Science	For Secondary School/Primary School Teachers	Mapping Towards a Successful Curriculum Leadership in Primary Science – an W7 Experience	<p>As Science curriculum leaders, we often seek ways to create an impact on student learning outcomes. One strategy is to ensure quality teaching and learning. In this presentation, a cluster of Science HODs and teacher leaders in W7 will share the functionality and benefits of curriculum maps in supporting the process of teaching and learning in Science. Participants will gain insights into how the team leverages on the curriculum maps to not only plan and enact effective lessons but also monitor and evaluate student learning. From the sharing, participants will also glean the boundless opportunities that the process brings about in continuous professional learning and development, strengthening the capacities of teachers as leaders of their own classes.</p>	Mdm Gui Wan Ping (Princess Elizabeth Primary School) Ms Tan Ying Yin (Fuhua Primary School) Mr Chin Joong Fui (Lakeside Primary School) Mdm Nur Hazreen Binte Subadar (Princess Elizabeth Primary School) Mdm Lau Hong Lay (Shuqun Primary School)
B13 3:45 pm - 4:40 pm	Jurong Primary School, West View Primary School & Jurong West Primary School (West Zone Cluster schools)	Teaching & Learning	Science	For Secondary School/Primary School Teachers	Curriculum Maps	<p>As Science curriculum leaders, it is important to ensure that the Science curriculum package is of good quality and is effectively and efficiently carried out. The group will be sharing how curriculum maps can be used as guide in planning for :</p> <ol style="list-style-type: none"> (1) conducting inquiry lessons, (2) making visible connections between key ideas and links between lower and upper block topics (3) making visible alternative misconceptions and using appropriate strategies to overcome them (4) using formative assessments to improve teaching and learning <p>On top of developing a quality curriculum package using the maps, the team will also be sharing how these curriculum maps can be leveraged to promote</p>	Mdm Goh Hwee Sung Patricia (Jurong West Primary School) Mdm Lim Pei Pei (Jurong Primary School) Mdm Efizah Samat (West View Primary School)

						professional learning, which would in turn ensure effective implementation of these maps.	
B14 3:45 pm - 4:40 pm	Nanyang Primary School	Teaching & Learning	Science	For Secondary School/Primary School Teachers	Blended Learning – The Best of Both Worlds	<p>Given the changing nature of how knowledge can be acquired and the profile of our learners, the way we teach and how we engage our learners need to change. Full Home-Based Learning (FHBL) as a result of Circuit Breaker catalyses the need to leverage technology to bring about blended learning in local schools.</p> <p>In this sharing, Nanyang Primary School will be sharing our exploratory journey on blended learning. We will share how a series of Science inquiry-based lessons using synchronous & asynchronous learning platforms to teach the topic of Food Chains and Food Webs during FHBL evolved to include elements of differentiated instruction in our final HBL task for our students in November.</p>	Mdm Yasmeen Mohamad Mrs Joanne Soo
B15 3:45 pm - 4:40 pm	Princess Elizabeth Primary School	Teaching & Learning	Mother Tongue Languages	For Secondary School/Primary School Teachers	Sharing of Good HBL Practices in MTL Department - Pictorial Composition	<p>Pictorial composition writing has always been a concern among our students. In a bid to help students become more confident and proficient in their writing, our team has infused FA strategy and technology into our teaching. In addition, the long learning journey of composition writing has been broken down into a series of small steps to make learning more manageable. For FA strategy, we will be sharing on the use of learning intentions, success criteria, checklist and writing frames. For technology, we will be elaborating more on how we have used SLS, Google Classroom and Classkick in composition teaching while incorporating the active learning processes with technology.</p>	Mdm Jiang Yanyan Miss Chanel Neo Wen Fang Miss Siti Zahidah Bte Suhaimi Mrs Poong kodi Muthu