## CONTENTS

<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>Director’s Message</td>
</tr>
<tr>
<td>5</td>
<td>At a Glance</td>
</tr>
<tr>
<td>6-7</td>
<td>Signature Event</td>
</tr>
<tr>
<td>8-14</td>
<td>Programmes, Series &amp; Sessions</td>
</tr>
<tr>
<td>15</td>
<td>Consultations</td>
</tr>
<tr>
<td>16</td>
<td>Online Resources</td>
</tr>
<tr>
<td>17-19</td>
<td>Teaching Enhancement Grants</td>
</tr>
<tr>
<td>20-22</td>
<td>Publications &amp; Outreach</td>
</tr>
<tr>
<td>23-24</td>
<td>Collaboration Projects</td>
</tr>
<tr>
<td>25-27</td>
<td>Academic Developers</td>
</tr>
<tr>
<td>28</td>
<td>Thank You: From the CDTL Team</td>
</tr>
</tbody>
</table>
Welcome to the 2020 edition of CDTL’s annual *A Year in Review*. In these pages we provide an overview of the manifold activities in which the Centre was involved in 2020—and what an eventful year it was.

CDTL works across several Domains of Practice to meet our key goal, namely that of fostering a quality culture through informed discussions that connect teaching, research, and learning, which we do by supporting academics’ development of their teaching in relation to their inter/disciplines.

These domains include the following:
1. Strategic and Policy Advice
2. Teaching and Learning Quality
3. Scholarship of Teaching and Learning
4. Professional Development Programmes
5. Curriculum Development
6. Engagement
7. Centre Effectiveness

*A Year in Review* provides further details about the initiatives we organised around these Domains, all of them intended to support teaching development in the diverse contexts of the disciplines to which NUS academics bring their deep knowledge and rich expertise.

Why is teaching development important at NUS?

It certainly is not because there is something or other ‘wrong’ with the way we have traditionally taught as academics: as experts in our disciplines, we know our content best, and already have well-developed strengths. Nor is it because academics need to learn so-called ‘best practices’ for how or what to teach. There are no such ‘best practices’ since teaching is highly context-dependent, and since as teachers we work with people, not natural, unchanging objects: our students, our colleagues, our compatriots.

Above all, academics’ development of our teaching is important as an opportunity to reflect on and rethink what this is all about: what the purposes of a higher education are, and how as academics we can contribute to the greater good enabled by such an education to our students, one another, and society at large.

May 2021 be a year in which this project of academic development is advanced even further at NUS.

Johan Geertsema
Director, CDTL
1 Signature Event

2 Programmes
2 Series
107 Sessions

9 Online Resources

252.5 Consultation Hours

18 Teaching Connections Issues
2 AJSoTL Issues
100+ Facebook Followers

23 Teaching Enhancement Grants
14 Collaboration Projects
This year, the Higher Education Campus Conference went fully online. The theme, “Re-examining learning, research, and teaching in challenging contexts: From disruption to possibilities”, built upon many recent conversations on responding to the COVID-19 pandemic, addressing new workplace demands and needs, as well as developing interdisciplinary programmes, all in the context of the pervasiveness of digital education.
NUMBER OF PARTICIPANTS
DAY 1 | 360 participants*
DAY 2 | 227 participants*

* unique participants
In light of the COVID-19 pandemic, a decision was made in early February to move all our academic development work online. This allowed us to model the kind of practices that we wanted our colleagues to employ.

We recognised that although there were many colleagues who were familiar with blended learning and educational technology, the majority were going to need support in moving their teaching online, both in terms of familiarising themselves with appropriate technologies and understanding how to effectively use these technologies.

The most pressing issue was to roll out webinars on the use of various technologies, such as Zoom and Microsoft Teams. Supporting these technologies and remote teaching represented the bulk of our academic development work in 2020.

In addition, we put together what we termed as the **Toolkit for e-Learning** that allowed colleagues to register for pertinent webinars and access existing online resources. **Open Conversations** is a new initiative that was prompted by a thirst for building community amongst colleagues who were, since the beginning of the pandemic, working remotely from home.
Open Conversations

Open Conversations is a new platform for NUS colleagues to have an open exchange and discourse on a variety of topics of essential and immediate concern. Conversations focused on a particular topic, but were largely unstructured and allowed colleagues to learn from one another and build a sense of esprit de corps.

Development of Online Resources

Developing online resources proved to be a critically needed response to the pandemic. The first resource we developed was a wiki entitled NUS Quick Guide to Online Teaching that brought together the necessary information for colleagues to understand what would be necessary to succeed and build effective remote teaching experiences.

However, although this was informative, colleagues wanted media that was more bite-sized and accessible. To this end, we developed a series of infographics and short videos for both colleagues and students. These were far more digestible, and included embedded links that allowed colleagues to go deeper for more information.

These online resources and information on pertinent webinars are accessible on Toolkit for e-Learning.
The programme comprises two components: the PDP-T Core and the Seminar Series.

The Core is a 3-day programme which focuses on helping participants become more familiar with teaching and learning processes. The August 2020 PDP-T Core was offered in a blended format in which participants were required to complete pre-session activities (e.g., micro-lectures, infographics, audio podcasts, annotated presentations) before meeting for online group discussions.

The Seminar Series, which from February 2020 was also moved online, engages participants in a faculty learning community that culminates in the completion of a teaching statement. These sessions aim to integrate and develop concepts and ideas introduced during the Core into the participants’ teaching practice.
CDTL conducts the Teaching Assistants’ Programme (TAP), as part of the University’s commitment to teaching excellence and recognition of the important role TAs play in supporting higher education teaching.

The TAP aims to enhance the TAs’ knowledge and skills in facilitating collaborative classroom learning. These sessions focus on planning and designing peer-to-peer learning that encourages active student engagement and participation during labs and tutorials to improve learning.

This year, the TAP went fully online, with all hands-on sessions being converted to synchronous sessions on Zoom. The Centre also developed a customised TAP for newly graduate trainees under the University’s Growth and Resilience Initiative, held over 2 half days in Oct 2020.
The teaching portfolio is critically important in enabling colleagues to document their achievements as academic teachers. It also plays a key role in the promotion process. The main goals of this series are for participants to reflect on their teaching and professional growth, examine what constitutes high-quality teaching, articulate their teaching philosophies, and explore how they can draw on multiple sources of evidence to develop impact narratives that demonstrate growth as a teacher and good teaching practice.

This two-day series focuses on guiding colleagues to prepare a formal education grant proposal for research into higher education, and fosters cross-institutional, collaborative projects. It also introduces participants to qualitative and quantitative research methodologies, supports them to formulate research questions, explore current and relevant literature, and design appropriate measures of students’ learning outcomes.
CDTL runs sessions which support colleagues’ teaching and learning needs, covering various pedagogical topics including designing online lectures and e-Learning resources, promoting online student engagement, and enhancing student assessment and feedback.

In 2020, most of CDTL’s sessions went fully online, and included webinars and virtual sessions designed to prepare and support colleagues in transitioning to fully remote or hybrid teaching and learning. These sessions ranged from using Zoom and Microsoft Teams for online teaching, presenting lectures using Panopto and Camtasia, administering e-Assessments on LumiNUS and ExamSoft, to “Open Conversations”.

107 SESSIONS
3,929 participants*

* includes repeat participants
SESSIONS LISTING

New Sessions

Open Conversations
• Sharing Your Experiences with Take-home Exams
• Move to Online Learning
• What I Will Do Differently Next Semester
• Building Community at a Distance
• Supporting Students
• Building an Ethical Online Course
• The Impact of Technology on the Future of Human Learning
• Universities Need to Tear Down Subject Silos
• How to Teach with an Interdisciplinary Approach
• Living Ideas: Immersive Assignments and Their Learning Outcomes

Other New Sessions
• Zoom for Online Teaching
• Microsoft Teams for Teaching Online
• Using ExamSoft for Digital Assessment and Feedback
• Online Teaching: What Can We Learn From Students’ Experiences?
• Designing MCQ Assessments That Require Higher-Order Thinking & Reasoning Skills
• The Power Of Visuals: Designing Infographics For Poster Presentations
• Helping Students Adapt To An Online Learning Environment
• Applying for the University Teaching Awards (ADEA & ATEA)

On-going Sessions
• Developing E-Learning Resources Using Camtasia Studio
• Recording Online Lectures with Panopto
• Managing Online Learning Using LumiNUS
• Facilitating Effective Online Discussions Using LumiNUS
• Assessing Student Learning Using LumiNUS
• Moderating Online Synchronous Discussions for Tutorials
In 2020, our academic developers (ADs) offered a total of 252.5 consultation hours. The main objective of the consultation sessions for grant applications was to provide and discuss feedback that might enhance draft proposals. For the one-on-one and small group sessions, ADs provided feedback on course portfolios, teaching portfolios for those applying for promotion, module design and other aspects of teaching and learning.

41
Grant applications

182
One-on-one

29.5
Small group
Remote Teaching and Online Education Resources

This year, CDTL produced resources in different formats to support faculty and students in transitioning from face-to-face to fully remote or hybrid forms of teaching and learning. These include infographics, short videos, wikis as well as resource guides.

RESOURCES & GUIDES

UNIQUE PAGEVIEWS (NOV-DEC 2020)

14
2,861

INFOGRAPHICS

- Quick Guide to Hybrid Teaching
- Quick Guide to Hybrid Learning (for students)
- Quick Guide to Remote Teaching
- Teaching During a Pandemic
- Preparing for Online Exams
- Peer Review of Online Teaching

VIDEOS

- Planning Open-book Take-home Exams
- Designing MCQs for Take-home Exams
- Using ExamSoft for Take-home Exams
- Preparing for Online Supervised Exams

WIKIS & GUIDES

- NUS Quick Guide to Online Teaching
- Facilitating Effective Discussions
- Designing Effective Online Assessments
- Quick Guide: Peer Review of Online Teaching
TEACHING ENHANCEMENT GRANTS

23 GRANTS AWARDED

13 Learning Improvement Projects

10 Learning Community Projects
Learning Improvement Projects

1-year Projects

Augmenting Digital Design Toolkit Application and Pedagogy with Peer-to-peer and Blended Learning
CHUNG Shu Yeng, Simone, Architecture

Cultivating a RESPonsive and Transformative Learning Community (CARES-TLC), a Peer Mentoring Programme for Professional Conversion Programme (PCP) Nursing Students with Postgraduate Nursing Students: A Mixed Methods Study
Siriwan LIM, ZHOU Wentao, & DONG Yanhong, Catherine, Alice Lee Centre for Nursing Studies

Developing Self-regulated Language Learners via Online Language Portfolios
Eduardo LAGO-OTERO, Yale-NUS College

Effectiveness of Dialogic Feedback: Impact of Questioning Techniques Used in Tutor-Student Conferences
Jessie TENG, Norhayati MOHD ISMAIL, & Daron Benjamin LOO, Centre for English Language Communication

Engaging Deeply with Cognitive Science in a Conservatory of Music: Using Student-centred, Project-based Learning to Improve Learning Outcomes and Performance Practice in Music Students
Kathleen Rose AGRES, Yong Siew Toh Conservatory of Music

Evaluating E-learning Migration Strategies during Emergencies - A Framework Toward Educational Resilience
TAN Swee Lin, Sharon, LEK Hsiang Hui, LU Weiquan, & OH Lih Bin, Information & Systems Analytics

Evaluating the Foundational Understandings Required for the Role of Health Advocacy of Year 1 Student Pharmacists in a New Integrated Programme: A Phase I Study
Leroy KOH & Paul GALLAGHER, Pharmacy; Julian AZFAR, Saw Swee Hock School of Public Health

Game-based Learning to Enhance Inorganic Chemistry instruction: “18-Electron Rule” Game as Proof-of-concept
FOO Maw Lin & ANG Wee Han, Chemistry

Online and In-Class Case Pedagogy: Applications in Strategic Communication Modules
Suwichit CHAIDARON, Communications & New Media

Retaining the Experiential Learning Focus of an Engineering Freshmen Module Amidst the COVID-19 Pandemic
SOH Wee Seng, Electrical & Computer Engineering

Scenario-based Student-generated Questions (SGQs) for Active Learning and Higher-order Engagement in Bloom’s Taxonomy
TAY En Rong, Stephen, Building

The Impact of PeerWise Approach on Assessment as Learning
WU Jinlu, Biological Sciences

2- to 3-year Project

Design and Implementation of Virtual Experiments to Demonstrate and Understand Chemical Engineering Concepts and Its Applications
Karthiga NAGARAJAN & Sachin JANGAM, Chemical & Biomolecular Engineering
Learning Community Projects

**Co-op Gurus**
Facilitator: HAN Zhe, Pharmacy
Co-facilitator: Paul GALLAGHER, Pharmacy
Members:
CHUI Wai Keung; CHEW Eng Hui; Priscilla HOW; WANG Aiwen; THE Sin Yee; TAI Chen Wei; CHEN Zhi Xiong; TAN Kong Bing

**Curriculum Re-design for Greater Community-based Learning**
Facilitator: James KAH, Biomedical Engineering
Co-facilitator: KUAN Yee Han, Tembusu College, & Office of Student Affairs
Members:
Stephen HSU; Norman NEW & LIM Cheng Puay; ZHOU Wentao; Muhammad NAWAZ; Bimlesh WADHWA; Jonathan CHEN; Dujeepa D. Samarasekera; Angeline LIM

**Designing Quality Massive Open Online Courses (MOOCs)**
Facilitator: Andre Matthias MULLER, Saw Swee Hock School of Public Health
Co-facilitator: Raymond LIM, Saw Swee Hock School of Public Health
Members:
SEAH Siang Joo; Alan SOONG Swee Kit; Rafi RASHID; Olivier Patrick LEFEVBVRE; Hafizah OSMAN; Clayton MILLER; Narayanan SHYAM; Thirugnanasambhandan DHANESHAN; Alex LIU Kaiyi

**Developing More Learner-centred Teaching**
Facilitator: Daniel JEW, College of Alice & Peter Tan, & History
Co-facilitators: Eddie LAU Siu Kit, Architecture; Bellam SREENIVASULU, Residential College 4
Members:
KUAN Yee Han; Paul ONG; Lynette TAN; Daniel SNG; Kankana MUKHOPADHYAY; Bryan Benjamin GOH Yu Xian; Joel CHOW Ken Q

**General Education Learning Community**
Facilitator: Nicholas CAI, General Education Unit, Office of the Senior Deputy President & Provost (SDPPVO)
Co-facilitator: Kenneth CHONG, General Education Unit, SDPPVO
Members:
SOON Wan Mei Amanda, WANG Hui Ting, LAU Chee Loong, Desmond, ZHANG Chen, Will, WI Chee Yong, Andy, & LIIM Lit San

**Inclusive Education Learning Community**
Facilitator: Dara Leah RICHARD, Centre for English Language Communication (CELC)
Co-facilitator: LEE Gek Ling, CELC
Members:
Shobha ADVADHANI; Gene Segarra NAVERA; Deborah CHOO; Marissa E Kwan Lin; Nazerene IBRAHIM; Jamila OSMAN; Inthra Raja INDRAN; Salome Antonette REBELLO; Agnes YUEN; LEUNG Wing Sze; Angeline LIM; Nilanjana SAXENA

**“Insight” Out on Student Motivation - We Learn What We Share, We Share What We Learn**
Facilitator: CHNG Hui Ting, Pharmacy
Co-facilitators: CHONG Yuan Yi, Chemistry; NG Tao Tao Magdeline, NUS Libraries
Members:
Ivan LOW Cherh Chiet; LEE Li Neng; NG Shun Geng; Noopur Vinayak JOSHI; SEOW Teck Keong; TAY En Rong Stephen; YEO Heu Ming Jeremy

**Project-centricity versus Learner-centricity in Project-based Learning for Design Courses**
Facilitator: CHEAH Kok Ming, Architecture
Co-facilitator: Hans TAN, Industrial Design
Members:
LIM Beng Kiang; LOH Ai Poh; TANG Kok Zuea; Nikhi JOSHI; ZHANG Ye; Kenya ENDO, & LIN Shengwei Ervine; Tsuto SAKAMOTO; KONG Kwok Hoong Thomas; CHEW Jia Ying; Donn KOH

**Student Growth and Development in the New Learning Spaces of Residential Colleges**
Facilitator: TAMBYAH Siok Tuan, College of Alice & Peter Tan (CAPT)
Co-facilitator: TOH Tai Chong, CAPT
Members:
Navin Prabhu BALAKRISHNA; CHUA Siew Chin; NG Jia Yun; Eric KERR, Kankana MUKHOPADHYAY; Susan See THO

**Teaching PET and CET Students Within the Single Classroom: Issues and Approaches**
Facilitator: WONG Yao Hing, Lee Kuan Yew School of Public Policy (LKYSSP)
Co-facilitator: Agnes TAN, LKYSSP
Members:
Naniek YULIATI; James CRABTREE; Aileen LAM Wanli
The year 2020 was an eventful one for publications and outreach at CDTL.

*Teaching Connections* was launched in April 2020 with five blog posts. It is a platform for colleagues and students to advance discussions about teaching, and share effective practices and innovative ideas related to teaching, learning, student experience and support. At the end of 2020, over 60 authors contributed 72 blog posts published in 18 installments, accessed by more than 15,000 unique viewers globally.

Another publication initiative was the revival of CDTL’s Facebook presence in August 2020. While still at a humble 100 followers, the [CDTL’s Facebook page](https://www.facebook.com/cdtl.unimelb) has gained a slow yet steady momentum. The [Asian Journal of the Scholarship of Teaching and Learning (AJSoTL)](https://ajsotl.org/) published 11 articles and 5 reflections in 2020.

In terms of events, we organized an [e-Learning Symposium](https://www.cdtl.unimelb.edu.au/events/e-learning-symposium) on 8 June 2020 in response to rapid changes in teaching and learning, and their implications due to COVID-19. CDTL also collaborated with the Global Relations Office (GRO) in organising [three regional webinar series](https://www.cdtl.unimelb.edu.au/events/webinars) between June and September 2020. Our team also facilitated the Open Networked Learning (ONL) course. In 2020, we had 24 colleagues who successfully completed two runs of the ONL course.

On 8 and 9 December 2020, we held the annual [Higher Education Campus Conference (HECC)](https://www.cdtl.unimelb.edu.au/events/hec). Instead of the usual in-person conference, it went fully online this year.

It has been a very productive year with many new adventures and learning points. Our heartfelt appreciation to contributors, presenters, participants, and readers who have supported us. Keep watching our space in 2021 and keep the conversations going.
Teaching Connections

A natural evolution from CDTL’s former e-newsletter CDTLink, Teaching Connections launched in April 2020 as an online platform for educators, students, and academic administrators within NUS’s wider learning community to share effective practices and innovative ideas related to teaching, learning, student experience and support within and beyond the physical classroom. The blog also includes specialist guides and resources relevant to the NUS teaching and learning context, as well as submissions by faculty from other South-East Asian universities and international institutions.

18 issues have been published thus far, with many articles focused on COVID-19’s impact on the higher education landscape, as well as the issues and innovations surrounding blended and remote teaching and learning. Our articles are frequently shared on our Facebook page - a new initiative developed for reaching a wider range of interested audiences.
The *Asian Journal of the Scholarship of Teaching and Learning (AJSoTL)*, Volume 10, Issue 1 was a Special Issue featuring completed teaching and learning research grants with the objective of improving student learning outcomes. Volume 10, Issue 2 showcased colleagues’ efforts in developing evidence-based pedagogical inventions to improve student learning. The journal published 11 articles and 5 reflections in 2020.

**GRO-CDTL Regional Webinar Series**

This webinar series creates a forum for conversations about good practices that go beyond the pandemic and its impact. It also facilitates opportunities for dialogue and collaboration among participating universities.

3 WEBINARS | 11 PANELISTS

**Open Networked Learning (ONL)**

This 80-hour fully online course builds on open and collaborative learning practices and explores how a problem-based learning format can be utilised in an online learning environment.

**e-Learning Symposium**

The key objective of this e-symposium was for Senior Management to communicate and consult with faculty members and students on the way forward for teaching at NUS.

706 PARTICIPANTS | 13 PANELISTS

100+ FOLLOWERS
In 2020, CDTL’s academic developers have been actively collaborating with colleagues in CDTL and from other departments, whether as co-applicants for research grants, co-authors of journal articles, or as co-investigators in module/programme development as well as teaching and learning inquiry projects.
Module/Programme Development

Development and Evaluation of Blended Resilience Improvement Training (BRIT) Among Students Across Higher Education Institutions: A Sequential Mixed-Methods Design
LAU Ying, ALCNS
Jeanette CHoy, CDTL

Development of the “Design Your Own Module” (DYOM) DMS1401CM “Chemistry of Food” (DYOM)
Francis CHONG Yuan Yi, Dept of Chemistry, FoS
Magdeline NG Tao Tao, Science Library
SEAH Zi Quan, Undergrad, FoS
Mark GAN, CDTL

Teaching/Learning Inquiry

Professional Development of University Teachers: Significant Conversations Following an Online Course
Rafi RASHID, NGS
Alan SOONG, CDTL
M Kamala DEVI, ALCNS
LEE Ming Cherk, CELC
Hafizah bte OSMAN, SCALE
Kiruthika RAGUPATHI, CDTL

Wither the LMS
Julie WILLEMS, Monash University (MonashU)
Henk HUIUSER, Queensland University of Technology (QUT)
Alan SOONG, CDTL
Iain DOHERTY, Deakin University
Scott GRANT, MonashU

Investigating Classroom Community across Three Learning Modes at RC 4: Face to Face, Fully online Zoom and Hybrid
TAN Yuen Ling, Lynette, RC4
Naviyn Prabhu BALAKRISHNAN, RC4
Jeanette CHoy, CDTL
Mark Gan, CDTL

Effects of Learning through Peer Discussions on Student Performance
LOY Hui Chieh, Dept of Philosophy, FASS
Kiruthika RAGUPATHI, CDTL

Learning in Online Environment: Faculty and Student Report (for Dept of Architecture, SDE)
TAN Beng Kiang, Dept of Architecture, SDE
Mark GAN, CDTL
Alviedo Dionne Robin MENEZ, Dept of Architecture, SDE
LEI Qinghua, Student Researcher
NG Lee Han Joshua, Student Researcher

Exploring Flexible Assessment in the Context of Computing Modules
Bimlesh WADHWA, Dept of Computer Science, SOC
Mark GAN, CDTL

Technology Acceptance Model and the Perception of Learning Quality in Online Design Studio Environment
Mark GAN, CDTL
TAN Beng Kiang, Dept of Architecture, SDE
YEO Zi Hui, CDTL
Alviedo Dionne Robin MENEZ, Dept of Architecture, SDE

Study of Students’ Use of Self-explanation and Elaborative Interrogation During Pre-course Video Watching in Blended Learning Module
SEET Min Kok, Economics
Mark GAN, CDTL

Study on Peer Assessment in Pharmacy Module
HAN Zhe, Dept of Pharmacy, FoS
Mark GAN, CDTL

Design-Your-Own-Module (DYOM): Co-creating an Undergraduate Elective Module with Students as Partners (SaP)
Francis CHONG Yuan Yi, Dept of Chemistry, FoS
NG Tao Tao Magdeline, Science Library
SEAH Zi Quan, Undergrad, FoS
Mark GAN, CDTL

Study on Authentic Learning Framework/Blended Learning Framework and Module Re-design
LUO Sha, Dept of Electrical & Computer Engineering, FoE
Mark GAN, CDTL

Diversity and Learning in the Context of Living-Learning Programmes: A Scoping Review
Johan GEERTSEMA, CDTL
LEE Kooi Cheng, CDTL
Mark GAN, CDTL
Alan Soong, CDTL
ACADEMIC DEVELOPERS

Back row (from left): Jeanette CHOY, Mark GAN, Johan GEERTSEMA, Adrian LEE, Alan SOONG
Front row (from left): Kiruthika RAGUPATHI, Charina Li ONG, LI EW Shin Dee, LEE Kooi Cheng
Publications & Conference Presentations


Publications & Presentations


Ragupathi, K. (2020, May 19). Resources: Conducting assessments online—How we can support our students. *Teaching Connections*. https://blog.nus.edu.sg/teachingconnections/2020/05/19/resources-conducting-assessments-online-how-you-can-support-your-students

Thank you
CDTL wishes you a fresh start with renewed energy and confidence throughout the New Year.

https://www.facebook.com/nuscdtl