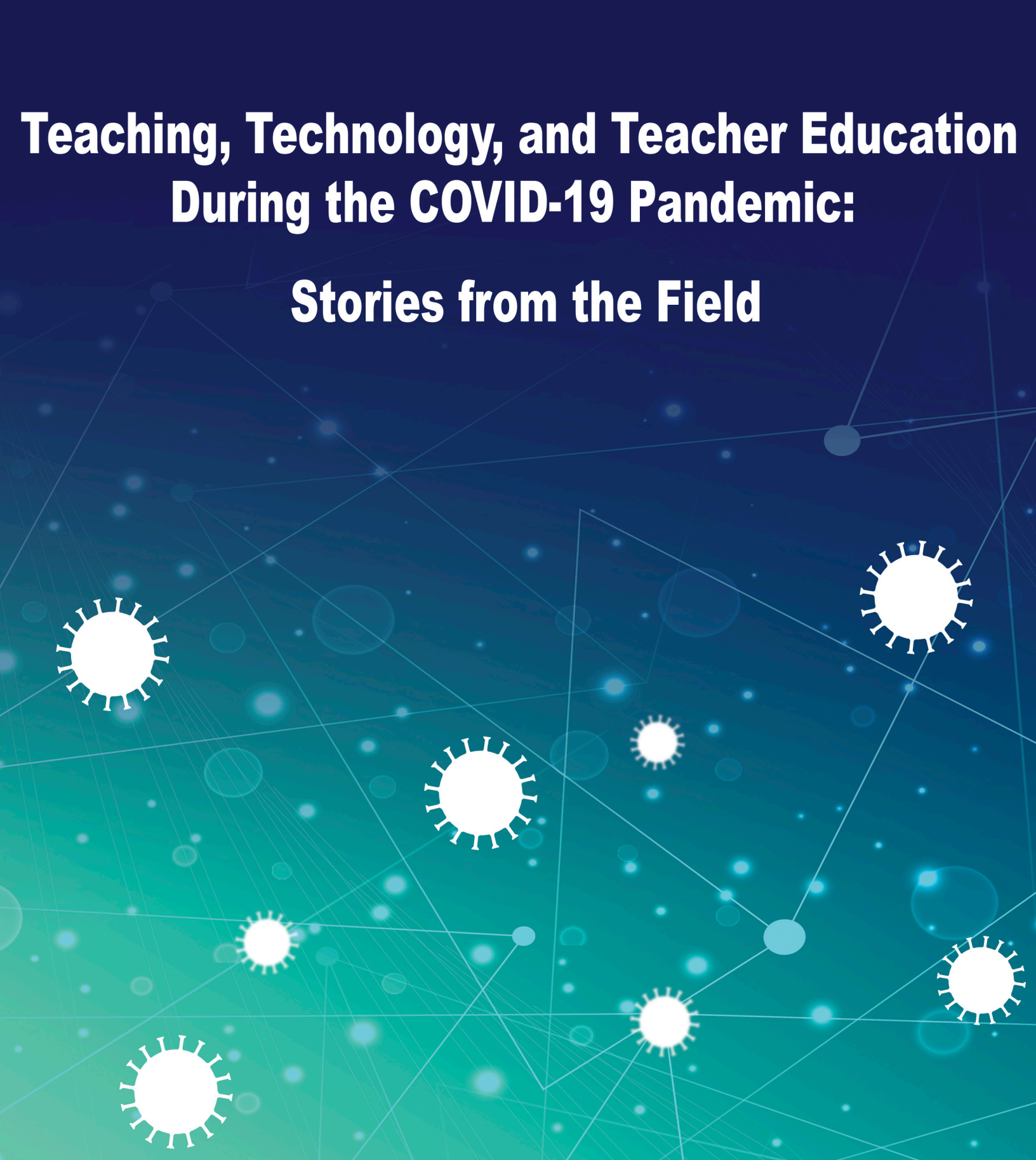


# **Teaching, Technology, and Teacher Education During the COVID-19 Pandemic: Stories from the Field**



## **EDITORS**

**Richard E. Ferdig**

**Emily Baumgartner**

**Richard Hartshorne**

**Regina Kaplan-Rakowski**

**Chrystalla Mouza**

**Teaching, Technology, and Teacher Education  
During the COVID-19 Pandemic:**

**Stories from the Field**

**Edited by**

**Richard E. Ferdig  
Emily Baumgartner  
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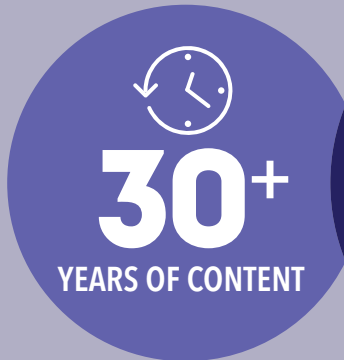
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(1 Thessalonians 5:11; ESV)



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## Table of Contents

Preface.....	xiii
Acknowledgements.....	xvii

### *Online Pedagogical Strategies*

Components of Remote Co-teaching <i>Amanda R. Goddard</i> .....	3
Building on Existing Brick-and-Mortar Practices in Online Spaces <i>Jeanne Mccarthy and Zora Wolfe</i> .....	7
What Are Artists and Art Educators Teaching Us About How We Can Conceive and Deliver Teacher Professional Learning Into the Future? <i>Kathryn Coleman and Abbey Macdonald</i> .....	13
Playing with Faculty: Creating a Learning Management “Sandbox” <i>Lara Ervin-Kassab</i> .....	17
Enhancing Social Learning Through Digital Applications – Life Stance Education and Sámi Pedagogy Move to Synchronous Distance Learning in Teacher Education <i>Satu-Maarit Frangou and Pigga Keskitalo</i> .....	23
Creating a Support Network to Sustain Student-Centered, Active Pedagogy in Emergency Online Education <i>Mia Kim Williams, Joseph E. Schroer, Colby Gull, Jeffrey C. Miller, and Sara Axelson</i> .....	27
À La Carte and On-Demand: Professional Development for Educator Preparation <i>Kiersten Greene</i> .....	33
Virtual Professional Learning for In-Service Teachers to Support Teaching and Learning in Online Environments <i>Stephanie I. Hulon, Melody H. Tucker, and André M. Green</i> .....	43
Preparing for eLearning Using Digital Learning Plans <i>Adrie A. Koehler and Tadd Farmer</i> .....	47
Building Resilience in New Zealand Schools Through Online Learning <i>Lucie Lindsay and Rachel Whalley</i> .....	55
Research-Based Design Recommendations for Transitioning a Computational Thinking Integration Summer Professional Development to a Virtual Format <i>Jennifer Albert, Robin Jocius, Tiffany Barnes, Deepti Joshi, Veronica Catete, Richard Robinson, Ian O’byrne, and Ashley Andrews</i> .....	59
Lessons Learned Moving an Elementary Science Methods Course to Emergency Online Delivery <i>Martha M. Canipe and Arabella Bayford</i> .....	65
Enhancing K-12 Pre-Service Teachers’ Digital Pedagogical Literacy: Lesson Planning for Teaching Online <i>Paul Flynn</i> .....	71
The Transcendent Power of Remix: Cultivating Creativity, Story, and Student Voice in Online Learning <i>Theresa Redmond and John Henson</i> .....	77

“Connected” Literacies: Virtual Storybook Reading and Digital Writing During the COVID-19 Pandemic <i>Peggy Semingson, Dana Owens, and William Kerns</i> .....	85
Video Conferencing to Support Online Teaching and Learning <i>Damian Maher</i> .....	91
Experiential Learning Through Video Observations <i>Donita Grissom</i> .....	97
Adding Flexibility To Curriculum: A Practical Guide for Student-Directed Assessment <i>Haoyue Zhang, Yan Yan, and Susie L. Gronseth</i> .....	113
Teaching Online Teaching: Using the Task-Centered Instructional Design Strategy for Online Computer Science Teachers’ Preparation <i>Rinat B. Rosenberg-Kima and Koby Mike</i> .....	119
Resisting Dehumanizing Assessments: Enacting Critical Humanizing Pedagogies in Online Teacher Education <i>Catharyn Shelton, Earl Aguilera, Benjamin Gleason and Rohit Mehta</i> .....	125
Promoting Mathematics Problem Solving and Collaboration in Synchronous Courses <i>Shelby P. Morge</i> .....	129
Bidirectional Benefits from School to Home Literacy Practices in the Early Childhood Virtual Classroom <i>Kathy R. Fox</i> .....	133
Best Practice to Teach Kindergarteners Using Remote Learning Strategies <i>Phu Vu, Richard Meyer, and Kelli Taubenheim</i> .....	141
Engaging Parents Through School-Wide Strategies for Online Instruction <i>Zora Wolfe and Jeanne Mccarthy</i> .....	145
 <b><i>Community and Collaboration</i></b> 	
Professional Learning under the Pandemic: A Self-Study of Five Teacher Educators’ Experiences of Transitioning to Emergency Remote Teaching <i>Liyan Song, Qijie Cai, Huili Hong, Xiaoming Liu, Lijun Jin, and Qing Li</i> .....	151
Global Webinars for English Teachers Worldwide During a Pandemic: “They came right when I needed them the most” <i>Joan Kang Shin and Jered Borup</i> .....	157
Modifying Technical Training for the Online Environment: A Community of Inquiry Approach <i>Kevin Oliver, Cansu Tatar, and Jennifer Houchins</i> .....	163
CoPing During COVID-19 Building a Community of Practice (CoP) for Technology Integration and Educational Reform in a Time of Crisis <i>Enrico Gandolfi and Annette Kratoski</i> .....	169
Fostering Interaction in Synchronous Online Class Sessions with Foreign Language Learners <i>Alice Gruber and Elwira Bauer</i> .....	175
Connecting Learners Through Technology in COVID-19: Facilitating Pre-Service Teacher Collaboration During the Pandemic <i>Susie L. Gronseth, Jingyuan Fu, Waneta Hebert, Haoyue Zhang, Lydia Ugwu, and Phuong Nguyen</i> .....	179
Whoopsocker Fights the Zombie Apocalypse: Supporting Teachers with Digital Arts-Based Curriculum <i>Erica Rosenfeld Halverson, Amanda Farrar, Kathy Sliter, and Nathan Wheeler</i> .....	187

Supporting Michigan Educators Through the Transition to Online Learning <i>Kristen Debruler, Carla Denton, Andrea Mckay, and Emily Sicilia</i> .....	191
Leveraging School/University Partnerships to Support the Transition to Online Learning <i>Audra K. Parker, Debra Sprague, Elizabeth Levine Brown, and Francoise Casablanca</i> .....	197
Supporting Teachers Where They Are: The Community Partnership Schools™ Model <i>Jarrad D. Plante and Robert Palmer</i> .....	203
Together in Education, Apart from Brick and Mortar: Rapid Professional Development for Online Distance Learning <i>Shyla Gonzalez-Dogan and Bilal Dogan</i> .....	211
Discovering the Affordances of Remote Instruction: Implementation of a Cross-Disciplinary Collaboration Assignment Online <i>Andrea Golloher, Lara Kassab, and Susan Cooper</i> .....	219
Prioritizing Relationships and Supportive Infrastructure in a University-School Collaboration Through and Beyond COVID-19 <i>Jacob Grohs, Holly Lesko, Justine Brantley, Malle Schilling, Tawni Paradise, Cheryl Carrico, Holly Matusovich, and Gary Kirk</i> .....	227
Promoting the Home-School Connection During Crisis Teaching <i>Frances Dendy Mahaffey and Widad Kinard</i> .....	235
Safe Texting: Increased Accessibility, Support and Connection for Preservice and In-Service Teachers <i>Jennie M. Carr</i> .....	239
Morning Meetings: A Responsive Model to Increase Teacher Candidates' Connectedness <i>Karen Santos Rogers</i> .....	245
Creating a Community of Practice for Educators Forced to Transition to Remote Teaching <i>Lisa B. Carey, William A. Sadera, Qijie Cai, and Samantha Filipiak</i> .....	251
Innovative Online Instruction: Synthesizing TPACK and Video Game Consoles <i>Karla Kingsley and Zachary Ramsey</i> .....	257
Enabling Music Students' Well-Being Through Regular Zoom Cohort Chats During the COVID-19 Crises <i>Carol Johnson and Brad Merrick</i> .....	261
Empowering Techno-resiliency and Practical Learning Among Teachers: Leveraging a Community of Practice Model Using Microsoft Teams <i>Diane P. Janes and Lorraine M. Carter</i> .....	265
Virtual CoffeeEdu: Connecting Educators Through Online Conversation <i>Suzanne L. Porath</i> .....	275
It's About How To Pivot: Teacher Educators, Teacher Candidates and Twitter <i>Sumreen Asim, Susan Poyo, and Samantha Fecich</i> .....	279
Social Media Collaborative Spaces <i>Sheila Baker, Renee Lastrapes, Lecia Eubanks, and Jana M. Willis</i> .....	289
 <b><i>Alternative Field Experiences in Pre-Service Teacher Education</i></b>	
Transitioning to Online Student Teaching <i>Diana Piccolo, Sara Tipton, and Stefanie D. Livers</i> .....	297
Virtually Remote: How Interrupted Internships Continued in a Virtual Classroom <i>Laura E. Monroe, Leslie Mendez, and Joyce Nutta</i> .....	303



Digital Sponsorship of Pre-Service Teacher Interns During COVID-19 <i>Lindsey Pike, Lea Herbert, Dena Slanda, and Mary Little</i> .....	309
Preservice Teacher Perceptions of Transition to an Electronic Portfolio as a Substitution for Practicum Experience <i>Stephanie Hendrith, Crista Banks, and Amanda Holland</i> .....	313
Adapting a Graduate-level Practicum Experience During an Emergency Response <i>Elizabeth Downs, Charles B. Hodges, and Stephanie A. Jones</i> .....	319
Teacher Educator and Preservice Teacher Construct Virtual Internship Through Online Writing Class for Post-Secondary English Learners <i>Josephine Prado, Susan Spezzini, Melinda Harrison, Stacye Fraser Thompson, Jennifer Ponder, and Patricia Merritt</i> .....	323
Using Google Docs and Hangouts to Support Student Teachers During School Closings <i>Samantha Riggleman</i> .....	329
Utilizing Teaching Simulations for Small Group Mathematics Discussions in the Void of Field Placement Opportunities <i>Carrie W. Lee and Hannah Freas</i> .....	335
Virtual Field Experience and Mock Interview Opportunities for Preservice Special Education and Secondary Teachers <i>Bailey Koch and Phu Vu</i> .....	343
Creating Meaningful Learning Experiences for Pre-Service and In-Service Teachers Facing Interruptions in Field Experience Placements During the COVID-19 Pandemic <i>Dawn Mollenkopf and Martonia Gaskill</i> .....	347
Video Instruction Transparency During COVID-19: Modeling for Preservice Teachers <i>Erin D. Besser</i> .....	355
Diving into the Depth of Online Learning: How Pre-Service Teachers Leverage Technology During the COVID-19 Pandemic <i>Joanne Baltazar Vakil</i> .....	361
Preservice Teachers' Use Design-based Research: Learning to Tutor Online During COVID19 <i>Sheri Vasinda, Hailey Adams, Kayla James, Ashley Henry, Tara Henson, Brianna Mckinney, Emmy Mueller, Morgan Randolph, and Jatelyn Taylor</i> .....	367
I Never Thought Quarantine Would Take Me All over the World <i>Jennice Mccafferty-Wright and Almira Kordic</i> .....	373
Through the Constructivist Lens: A Vision for Preparing Pre-Service Teachers for Online <i>Jennifer Green and Eugenia Johnson-Whitt</i> .....	379
Practical, Proactive and Responsive Teacher Preparation for the Virtual Context <i>Susan R. Poyo and George Ash</i> .....	387
Using a Critical Perspective to Transition an Elementary Mathematics Methods Course to a Virtual Learning Experience <i>Stefanie D. Livers and Diana Piccolo</i> .....	393
Implementing Virtual Learning in Teacher Education During the COVID-19 Pandemic in a Teacher Training Center in Morocco <i>Ayad Chraa, Mohamed El Hajji, El Hassane Khouya, Mohamed Manssori, Mohamed Mimis, Abdelaziz El Ghordaf, Wendy Peia Oakes, Tanya Pinkerton, Nicole L. Thompson, Mohammed Elmeski, and Edith Gummer</i> .....	401
It's a Beautiful Day in the (Digital) Neighborhood: Using Mr. Rogers to Demonstrate Educational Psychology in Practice <i>Natalie Schelling and Calvin Rausch</i> .....	409

## ***Pre-Service Teacher Education Methods and Pedagogy***

Lessons Learned from the Transition to a Virtual Instructional Technology Course for Elementary Preservice Teachers <i>Leslie Suters</i> .....	417
Using Coding to Go Beyond Skill Based Mathematical Learning: Expanding the Arc of Online Mathematics Teaching and Learning in an Era of Emergency COVID-19 Online Teaching <i>Cory A. Bennett and Beverly Ray</i> .....	425
Innovative Design Revisions on an Undergraduate Technology Integration Course for K-12 Preservice Teachers <i>Suparna Chatterjee and Julia Parra</i> .....	431
Transitioning to Online Music Teacher Education: Challenges and Opportunities for Knowledge Development <i>Smaragda Chrysostomou and Angeliki Triantafyllaki</i> .....	443
Reimagining Learning in a Language Education Course Thrust Online: Social Constructivism in Times of Social Isolation <i>Una Cunningham and Anna Bergström</i> .....	449
Revisiting Preservice Technology Integration Course Content: What are the Critical Objectives? <i>Theresa A. Cullen and Anne Ottenbreit-Leftwich</i> .....	457
Flipping the Classroom with Routine and Innovation <i>Mara Haslam, Oliver Smith, and Ylva Sandberg</i> .....	465
Teacher Education During Isolation: Virtual Worklabs for Community and Accountability <i>Stefani Boutelier, Samantha Gibson, Charon Leal, and Nicole Ludwig</i> .....	473
Take Back Social Constructivism: A Process for Teachers Educators to Design Collaborative, Asynchronous Learning Experiences for Pre-Service Teachers <i>Todd Cherner</i> .....	479
Professional Development for Remote Learning in Teacher Education to Support Teacher Educators and Preservice Teachers During the COVID-19 Pandemic <i>Yi Jin and Traci Redish</i> .....	483
Action Research on Remote Teaching as an Instrument for Reflection on Online and Face-to-Face Teaching <i>Anne Bannink and Rose van der Zwaard</i> .....	489
Future Teacher Training of Several Universities with MOOCs as OER <i>Martin Ebner and Sandra Schön</i> .....	493
Meaningful and Reflective Virtual Professional Development with Preservice Teachers Amidst the COVID-19 Pandemic <i>Rebeca Grysko, Michelle Kelley, and Lee-Anne Trimble Spalding</i> .....	499
Stability Under Pressure: How a Teacher Educator Sought to Align Beliefs and Practices During a Pandemic <i>Tim Buttler</i> .....	507
5 Minutes On K-12 Online Learning With... – Advice from Experts to Teachers in the Field <i>Michael K. Barbour</i> .....	511

## ***K-16 Educator Professional Development***

Throw Me a Lifeline: A Professional Development Program for Teacher Educators Managing the Demands from the Rapid Transition to Online Teaching <i>Teresa S. Foulger, Kevin J. Graziano, Denise A. Schmidt-Crawford, and David A. Slykhuis</i> .....	517
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Coaching Novice Inservice University Lecturers: From Face-to-Face Supervision to Online Video Tagging <i>Rose van der Zwaard and Anne Bannink</i> .....	521
Facilitating Just-in-Time Professional Development for Inservice Teachers Transitioning to Distance Learning <i>Kalianne L. Neumann and Megan Durst Smith</i> .....	527
Multilevel Approach to Professional Development for Teaching During School Closure <i>Pakon Ko, Yutong Wang, and Nancy Law</i> .....	531
Leveraging Virtually-Mediated Professional Development to Meet the Emotional Needs of Preservice Teachers in the Age of COVID-19 <i>Dustin Meritt and Eileen Wertzberger</i> .....	535
Building-Level Teacher-Experts as a Professional Development Support for a Multiple Access Point Strategy During Distance Learning <i>Melyssa Ferro and Jessica Anderson</i> .....	539
Virtual Professional Development Design for Inservice Teachers During the Pandemic <i>Shannon Williams</i> .....	549
Personalized Professional Learning in the Move to Remote Instruction During COVID-19 <i>Jenna Conan</i> .....	557
Tutoring in Online Environments: A Topic for Professional Development <i>Christopher J. Devers, Erin E. Devers, Paul D. Miller, and Alexandra Alayan</i> .....	561
Asynchronous Professional Learning: An Online Conference to Connect Pre-Service and In-Service Teachers to Current Research <i>Jaime L. Beck, Teresa Fowler, and Barbara Brown</i> .....	565
Teaching With A Non-Traditional Mindset: Lessons Learned from In-Service Teachers <i>Jean Kiekel, Nicole McZeal Walters, and Serena Flores</i> .....	569
Teaching the Teachers During Remote Learning <i>Dannielle Darbee Muelthaler</i> .....	575
The 5-Phase Process as a Balancing Act During Times of Disruption: Transitioning to Virtual Teaching at an International JK-5 School <i>Maria D. Avgerinou and Sophia E. Moros</i> .....	583
Use of ICT for Active Teaching and Learning in the Indian Government Secondary Schools During the Lockdown 2020 <i>Amina Charania, Roshan Singh, Kaveri Borthakur, Sajid Ansari, Maman Halsana, Ishmeet Kaur, Uchita Bakshani, and Srabanti Basak</i> .....	595
Virtual STEM+C Camp <i>Jaime Coyne, Tori Hollas, Mae Lane, and Christina Ellis</i> .....	601
Research-Informed Teaching in a Global Pandemic: “Opening Up” Schools to Research <i>Cornelia Connolly, Tony Hall, Sarah-Louise Jones, and Richard Procter</i> .....	609
 <b><i>Digital Tools</i></b>	
Digital Storytelling for Online Classrooms <i>Jamie Caudill and Christine Reilly</i> .....	617
Managing to Collaborate with Secondary Mathematics Teachers at a Distance: Using Storyboards as a Virtual Place for Practice and Consideration of Realistic Classroom Contingencies <i>Amanda Milewski, Patricio Herbst, and Irma Stevens</i> .....	623

Supporting Resilience Through Meaningful, Digital Performance-Based Projects <i>Leah McKeeman and Blanca Oviedo</i> .....	631
We Came to See, Then We Saw: A Reflection of One School’s Experience Using Seesaw for Online and Remote Learning <i>Daniel James Mourlam, Gabrielle Strouse, Karen Kindle, Steven Chesnut, and Lisa Newland</i> .....	639
Using Teaching Menus and Portfolios to Support At-Home Interns’ Work <i>Michelle Adler, Jodi McArthur, Katie Wolgast, and Deann Seems</i> .....	645
Developing Educational Websites in lieu of Clinical Fieldwork <i>Charles Tocci, Frances Bartolutti, Katherine Czajka, Jenna Jeffirs, Maddi Matassarini, Noe Serrano, and Amanda Timlin</i> .....	649
Supporting Children’s Mathematical Understanding Through a Hyperlinked Book of Mathematics Games <i>Julie M. Amador, Abraham Wallin, Jode Keehr, and Christopher Chilton</i> .....	655
Designing Personalised, Authentic and Collaborative Learning with Mobile Devices: Confronting the Challenges of Remote Teaching During a Pandemic <i>Matthew Kearney, Kevin Burden, and Sandy Schuck</i> .....	661
Using Google Apps as a Tool to Advance Student Learning via Productive Small Group Discussions and Teacher Feedback in an Online Environment <i>Patrick Sullivan</i> .....	667
Rethinking Online Assessments: Screencasting as an Evaluation Resource <i>Katherine Baleja</i> .....	671
Using Flipgrid to promote Social and Emotional Learning During Covid-19 <i>Della Perez</i> .....	675
Personal Outreach at a Distance: Using Voice and Video Tools to Enhance Engagement <i>Charlotte Hunter, Nicole Berry, and Ceceilia Parnter</i> .....	681
Using Motivational Videos to Support Student Engagement <i>Marla J. Lohmann</i> .....	687
Best Practices for Online Language Teaching with 360-Degree Videos <i>Margherita Berti</i> .....	691
Using Recorded Online Meetings to Support Remote PD Program for UAV Drones <i>Karen H. Jin and Diane Silva Pimentel</i> .....	695
Supporting In-Service Kindergarten Teachers for an Effective Online Phonological Awareness Instruction <i>Argyro Fella and Lefki Kourea</i> .....	699
In-Service Teachers’ Technology Integration for Young Learners: Using QR Codes to Extend Knowledge Building with Non-fiction Picture Books <i>Katie Schrodt, Erin FitzPatrick, and Debra McKeown</i> .....	705
Making Effective Use of Voice Thread and Discussion Boards in Online Coursework <i>Chinwe Ikpeze and Katrina Arndt</i> .....	711
Asynchronous Audio Feedback: Time- and Space-flexible Writing Instruction <i>Erin FitzPatrick, Debra McKeown, and Katie Schrodt</i> .....	717
Integrating Simulations as a Tool for Developing Robotics Skills in Technology Education <i>Emily Baumgartner</i> .....	725

Using Virtual Simulations and Videoconferencing to Rehearse and Enact Number Talks in Online Settings <i>Catherine S. Schwartz, Carrie W. Lee, Monica Gonzalez, and Leigh Belford</i> .....	729
Creating an Online Maker Education Course Incorporating Make to Learn Invention Kits <i>Glen Bull, Jo Watts, and Michael Littman</i> .....	737
Digital Assessment for Learning – An Early Snapshot of the DADLIS Project <i>Miriam Judge</i> .....	745

## ***Equity Issues***

How Do We Oppose Racist Zoombombs?: A Discriminatory Design Technology Audit <i>Daniel G. Krutka, R. Zackary Seitz, and Ahmed Mohamed Hadi</i> .....	753
Emergency Closure in Education: A Case for STEM Outreach Center’s Afterschool Program <i>Sara Morales, Stella Otoo, and Suparna Chatterjee</i> .....	761
Technology as Technocracy: Educators’ Conscientious Use of Technology for Authentic Family Engagement <i>Katherine Barko-Alva, Lisa Porter, and Socorro Herrera</i> .....	765
Physical Literacy for Communities: A Multi-Sectoral Approach and Response to the Physical Literacy Needs and Capacities of Teachers, Schools, and Students During COVID-19 <i>Jennifer Fane and Drew Mitchell</i> .....	769
Multimodal Reflections on Teaching Experiences <i>Andrea Tochelli-Ward</i> .....	773
Online Assistive Technology Professional Development for In-Service Teachers <i>Virginia Morash-MacNeil</i> .....	783
Enhancing Online Science Instruction for Students with Disabilities Using Universal Design for Learning <i>Jacob S. Brewer and Sacha Cartagena</i> .....	789
Remote Instruction for Students Who Are Blind or Visually Impaired: Experiences of Preservice Interns <i>Kerry S. Lueders, Fabiana Perla, Jamie Maffit, Emily Vasile, Nicole Jay, Jessica Kaplan, and William Edward Hanuschock, III</i> .....	795
Learning Outside the Classroom through Collaborative Practices Utilizing Universal Design for Learning <i>Michelle Grenier and Victoria Nelson</i> .....	801
Online Teaching Labs to Facilitate Lesson Analysis in Mathematics Methods Courses and Professional Development Contexts <i>Julie M. Amador, Ryan Gillespie, Cynthia Carson, Cynthia Callard, and Jeffrey Choppin</i> .....	807
Online Simulations Enhance Learning and Class Relationships Through Shared Embodied Experiences <i>Catherine Smith</i> .....	813
Creating Space for Reflection and Reflexive Responses within a Digital Environment <i>Kimberly Lewis Banks and Ceceilia Parnther</i> .....	819
The Trap of Technocentrism: (Re)Centering Pedagogy for Emergency Remote Teaching <i>Marie K. Heath and Pamela Segal</i> .....	827

## PREFACE

### Introduction

The COVID-19 pandemic brought frightening headlines. Each day dawned with news highlighting the number of cases (and deaths), the contagiousness of the disease, the lack of a cure or vaccine, and the scarcity of personal protective equipment for our healthcare and other frontline workers. One of the few positives was the speed at which many global partners joined to battle the disease. Academic researchers and even academic journals joined in the fight. For instance, in addition to giving open access to articles, many medical journals switched to a speedier review to be able to quickly publish promising results. So, as researchers were making early discoveries, they had a way to bypass a traditionally longer review and publication process to give hope, share building blocks, and encourage collaboration.

At the beginning of April (2020) we began a conversation with editors of journals including *TechTrends* (Chuck Hodges) and the *Journal of Computing in Higher Education* (Stephanie Moore). We knew three things. First, we knew that many education and technology journals would probably invite and publish special issues of articles in 9-24 months. These articles would be retrospectives detailing what happened, what was implemented, and what worked (or did not work). Second, we knew that COVID-19 would probably last a while, and that although future journal articles would be tremendously helpful, we needed to publish work that would immediately impact people. Although ‘emergency instruction’ was getting people through their spring classes, there was a very high likelihood that they were going to need support and advice in the summer and into the fall (and perhaps beyond). Thus, in addition to support in the next 24 months, they needed help right away.

Third, we knew that there were a lot of success stories happening in teacher education around the world. We each personally heard and saw stories of success in responding to the pandemic and emergency online instruction at the pre-service teacher education and the inservice teacher professional development levels. However, these ‘stories’ were not your typical research narratives. In other words, these were not stories that began with a theoretical idea, developed into a research plan, received human subjects research approval, resulted in collected and analyzed data, and then were going to be turned into 30-page academic papers. Rather, these were stories of heroes using technology to respond to desperate situations. We needed to share these stories as a way of providing hope, support, and ideas for others while maintaining the rigor of the academic review process.

We spoke with leaders at both the *Association for the Advancement of Computing in Education* (AACE) and the *Society of Information Technology and Teacher Education* (SITE). More specifically, we sought and were given approval to host a special issue of the *Journal of Technology and Teacher Education* (JTATE) on “Preservice and Inservice Professional Development during the COVID-19 Pandemic.” Unlike a traditional special issue, where five to seven articles of 5,000-7,000 words (each) are published, we asked authors to submit short articles of between 500-1000 words. The timeline was absurd for most traditional journals. We released the call on April 15, 2020. We gave authors until April 30 to submit papers, reviewers one week to review papers, and accepted authors around a week to return revisions.

There was initial concern that such a timeline would not work but we were hopeful that we would receive 15-20 articles. The response exceeded our expectations by far; by the end of the night on April 30, we had received 266 submissions. Of those, 33 were accepted for publication in the special issue. By quantity, and by quality of the responses, the special issue idea was a success. The use of a short ‘medical model’ for publishing allowed us to issue a call for papers on April 15, 2020, and subsequently publish 33 articles in a special issue six weeks later (June 1, 2020; <https://www.learntechlib.org/j/JTATE/v/28/n/2/>; see Hartshorne et al., 2020).

We took a lot of pride in the journal special issue and what our authors were able to contribute to the field in such a short amount of time. However, we quickly realized we had a major challenge in front of us. With only 33 articles accepted for the special issue, we had another 233 submissions remaining. Some of the 233 submissions were not suitable for publication in response to the call; they were either not about work during the pandemic or not focused at the intersection of technology and teacher education. On the other hand, a large portion of the remaining submissions contained very thoughtful and helpful prose. While they did not necessarily all have an empirical nature to them, they were full of positive news and provided helpful advice and implications for scholars and educators alike. We returned to AACE and asked if they would be willing to let us publish an eBook, providing an outlet for those authors to share their important work with the larger community. They readily agreed, and we had the genesis of this book.

In addition to the original reviews we received from members of the editorial board and ad-hoc reviewers, we began the process of re-reviewing the remaining articles as editors. We identified 156 submissions that we believed had promise

to both enlighten and guide preservice teacher educators and those who lead inservice teacher professional development. We invited those authors to revise their submissions, using a new chapter template to ensure consistency (see *General Outline of the Chapters* below). We provided authors one week to revise and resubmit their work. Resubmitted papers were reviewed again editorially and 133 papers of the initial 266 submissions were accepted for publication in this book.

## The General Outline of Chapters

We gave the authors of the special issue a more research-oriented outline for their articles. However, we knew that many of the book chapters did not have a traditional research framework. We also knew that with 133 chapters and 1000-1500 words we allowed book authors, we needed to have consistency for our readers. Finally, and perhaps most importantly, we knew we wanted to help our readers in their daily practice. Thus, we created a template that focused more on the pedagogical innovation (i.e., the response to the pandemic) and its implications for practice.

We asked authors to ensure that each chapter included the following (although some also choose to use sub headers):

- **Front Material** – Title and author information as well as an abstract (75-150 words) and 7-10 keywords.
- **Introduction** (~100-150 words). The introduction set the stage for the work. We told authors that most readers would understand the context of the pandemic, and thus to focus instead on the theoretical framework and literature guiding their work. We also asked them to describe the audience they worked with (e.g., preservice or inservice) and the research and practice gaps they were trying to fill. We told them to think of this as the combined sections of an introduction and literature review of a ‘normal’ academic paper.
- **Innovation** (~300-350 words). We told the authors that this was the first of two especially important sections. We reminded them that if the purpose of the chapter was to help others, then someone reading this section should be able to clearly understand what they did during the pandemic. We encouraged the authors to include links, tables, figures, and appendices—materials that might help others not only visualize but also replicate what the authors were able to accomplish. Authors were advised to ensure that references were used throughout the chapter, but particularly in this section to support and justify design decisions. Some authors also included free-to-use linked media and resources that you will see throughout the book.
- **Results** (~100-200 words). This section was purposely kept short as we knew that most papers were not empirical in nature. Authors were instructed to include data results if they had them and also to consider including literature and references to support early claims and findings.
- **Implications** (~350-500 words). The authors were told that this was the second critically important part of the chapter. We asked them to include straightforward and practical implications for their audience (preservice teacher educators and/or inservice professional development). While the innovations section described what the authors did in vivid detail, this section was intended to be a place for authors to give advice to others based on what they learned. Once again, authors were reminded to include links, tables, figures, or appendices to support recommendations and the implementation by others. We also suggested that this was another great place for references to support those policy and practice implications, particularly if their data were limited.
- **Future Research** (~100-150 words). The implications section provided next steps for readers; it served as a lessons-learned/practical advice section of the chapter (with the occasional policy recommendation). However, we also wanted authors to invite readers into a research conversation. Because many of these studies were pilot studies, we asked that this section be comprised of future research possibilities for both the authors and their readers, particularly drawing literature back in from the introduction.
- **References**. There was no maximum number of references, and they did not count against the word limit (neither did figures, images, links, or appendices). However, we reminded authors that references should be placed throughout each of the sections, not just in the introduction.

- **Appendices.** We really wanted this book to be useful to readers attempting to teach online or in blended environments for summer, fall, and beyond. As such, we encouraged authors to include any materials that would allow readers to immediately and directly implement the authors' work into their own practice.

## The Sections of the Book

At its core, this book is focused at the intersection of technology and teacher education. However, even with such a specific focus, authors submitted papers that covered very diverse areas of inquiry or practice. We divided the book into seven categories that somewhat mirrored the categorical divisions for the special issue of JTATE:

1. Online Pedagogical Strategies. The move to remote instruction necessitated the transition from face-to-face or brick-and-mortar approaches to new pedagogical strategies in preservice and inservice teacher education that capitalized on the affordances of technology. This section features 24 manuscripts that discuss a wide range of online strategies that facilitated the delivery of teacher education activities. Articles in this section discuss theoretical frameworks that support the adaptation of face-to-face teaching and learning strategies to online platforms, new forms of teacher lesson planning for online teaching, the development of digital resources for teachers that supported online teaching and learning, and strategies for teachers as they prepare parents and students for online learning and assessment.
2. Community and Collaboration. The COVID-19 pandemic made it clear that close collaboration with school systems and institutions of higher education, both locally and globally, was going to be essential to respond to the needs of preservice and inservice teachers. The 19 chapters featured in this section highlight ways to build such communities. These chapters discuss webinars for teachers worldwide during the pandemic, teacher and teacher educator discipline-specific as well as cross-discipline communities of practice, the development of school/university partnerships to support the transition to remote teaching, the role of home-school connections, and the promises of social media to empower and connect educators.
3. Alternative Field Experiences in Preservice Teacher Education. Clinical field experience is the hallmark of teacher education and a required component of teacher licensure (Darling-Hammond, 2014). With the need to shift both university and K-12 school instruction online, teacher educators had to quickly re-envision and re-imagine traditional field experiences, which typically place preservice teachers in physical classrooms working alongside inservice educators. The 19 chapters featured in this section discuss innovative approaches to preservice teachers' field experiences. These chapters discuss virtual internships, the use of simulations and video as an alternative to field placement, unique ways of facilitating preservice and inservice collaboration, and alternative approaches to helping preservice teachers connect theory to practice, a primary goal of field experiences.
4. Preservice Teacher Education Methods and Pedagogy. Like field experiences, content-specific methods courses are an essential component of teacher education (Darling-Hammond, 2014). These courses focus on helping preservice teachers develop knowledge and skills needed to teach within a discipline. The 15 chapters featured in this section discuss new pedagogical approaches to the delivery of methods coursework (e.g., mathematics, music, language education, and educational technology), as well as innovative pedagogical strategies for helping preservice teachers develop critical skills related to reflection, collaboration, and ongoing learning.
5. K-16 Educator Professional Development. Professional development is essential for helping teachers keep up to date with new developments in theory and practice. This need was exacerbated during the COVID-19 pandemic as educators had to shift quickly to remote instruction. This section includes 16 chapters focusing on innovative approaches to educator professional development in both K-12 and higher education settings. These approaches leveraged what we know about effective professional development, including opportunities for personalized and just-in time learning to coaching and tutoring.



6. Digital Tools. In the current technology-saturated world, the plethora of digital tools can sometimes be intimidating, resulting in their misuse. When preservice and inservice teachers were suddenly faced with the necessity of transitioning to online instruction, they needed guidance with how to use digital tools in pedagogically-sound ways. This section features 23 chapters that overview innovative implementations of digital tools. The authors discuss how online instruction can be facilitated and enhanced using digital tools such as audio feedback, hyper-linked websites, 360-degree video, videoconferencing, storyboards, and digital storytelling.
7. Equity Issues. When instruction precipitously needed to be delivered electronically, preexisting concerns regarding equity issues in education became increasingly amplified. The 13 chapters featured in this section cover a variety of topics addressing these equity issues with the goal to help preservice and inservice teachers meet the diverse needs of all learners. Topics addressed include discussions related to the digital divide, the technocentrism trap, assistive technology solutions, and wellbeing.

## Conclusion

Our academic publication process of peer reviewing manuscripts is a good example of a tried-and-true practice that is common in academic traditions. As academics, we strongly believe in and continue to promote full peer review, just like we did in this book. However, through the special issue and this book, we adopted a fast ‘medical model’ of going from a ‘request for papers’ to publication of a special issue in about six weeks and to a book in about eight weeks. This was truly an experiment for us as editors and for many in the field who were writing for us, reviewing for us, or just watching what we were doing. We believe that this accelerated model has merit and should be considered for future publications. This would be particularly true during events that require immediate response (e.g., a pandemic).

In conclusion, we are pleased to be able to bring you this book on technology and teacher education during (and after) a pandemic. In these pages, you will find thoughtful and well-written chapters that can be used to improve practice, to inform current and future research, and to drive important policy questions.

Respectfully,

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Emily Baumgartner, *Assistant Professor of Technology, Ohio Northern University*

Richard Hartshorne, *Chair and Professor, Learning Sciences and Educational Research, University of Central Florida*

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## References

- Darling-Hammond, L. (2014). Strengthening clinical preparation: The holy grail of teacher education. *Peabody Journal of Education*, 89(4), 547–561. <http://doi.org/10.1080/0161956X.2014.939009>
- Hartshorne, R., Baumgartner, E., Kaplan-Rakowski, R., Mouza, C., & Ferdig, R.E. (2020). Special issue editorial: Preservice and inservice professional development during the COVID-19 pandemic. *Journal of Technology and Teacher Education*, 28(2), 137-147. Available online at: <https://www.learntechlib.org/primary/p/216910/>.

## ACKNOWLEDGEMENTS

Edited books have authors; as such, editors rightfully thank their authors. This process, however, feels like it should come with an extra-large bouquet of appreciation. Our authors were asked to write—and re-write (often several times)—in an incredibly short amount of time. They did so joyfully to help others. As you read these pages and hear their stories, we hope you are as encouraged as we were by their willingness to respond to something none of us had ever witnessed (COVID-19).

Peer-reviewed edited books also require reviewers. We asked our reviewers for their service, we asked them for their service during a pandemic, and we asked them for their service in a short window of time (some read upwards of 10 chapters in as little as 7 days). We have listed the entire JTATE Editorial Review Board and the guest reviewers below. Some read, some wrote, and some sent us extra reviewers to help. We thank them for ensuring this book was rigorous in review. Their invaluable advice to authors ensured quality work in this book.

We would also like to thank Gary Marks, Chris Marks, Kathryn Mosby, and Sarah Benson at AACE for being willing to take a risk with both the special issue and the book. They were supportive of the idea, even though success was not guaranteed. In addition to taking on the project, they believed so much in helping others that they made the special issue and this book open access so that everyone could benefit from the amazing stories included in these pages.

In closing, we wish to thank our families for their support of our professional efforts, allowing us to give up personal time to complete this task.

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# Video Conferencing to Support Online Teaching and Learning

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At the COVID-19 pandemic impacts on schools and universities, these institutions are drawing on video conferencing technologies as a safe alternative to support teaching and learning. This article draws on publications by the author and other literature as well as recent practice to provide processes and strategies to support online teaching and learning via video conferencing technologies. Using a Community of Inquiry framework, the article highlights the benefits of using video conferencing focusing on social presence, cognitive presence and teaching presence.

**Keywords:** video conferencing, Community of Inquiry, school education, university education, social presence, cognitive presence, teaching presence

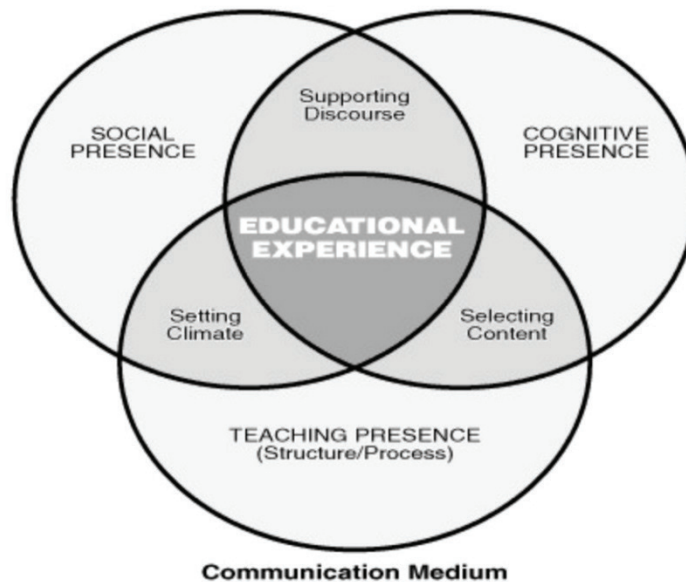
## INTRODUCTION

The use of video conferencing to support teaching and learning is becoming increasingly possible with many young people and adults owning computers or mobile devices that can support video and audio connections. According to Themelis and Sime (2020), video conferencing (VC) can assist online learning and teaching through supporting, watching, and interacting with teachers and learners from anywhere. Interactions via VC can be both informal and formal. Informal online interactions have been shown to help lecturers and students “establish better social relationships with their instructor and classmates” (Contreras-Castillo, Favela, Perez-Fragoso, & Santamaria-del-Angel, 2004, p. 164).

This chapter focuses on two different projects undertaken. One of these involved children in a hospital ward and classroom where, due to sickness, students were unable to travel and thus, the use of VC provided opportunities to learn a variety of topics. The second project involved working with pre-service teachers (PSTs) using video conferencing as a result of them being unable to physically attend university due to the COVID-19 lockdown. These two projects illustrate how VC can be used to support teaching and learning for children and adults, and how VC can be used in small and large group settings.

### Community of inquiry framework

The theoretical framework used to understand online interactions supporting teaching and learning is the Community of Inquiry (CoI) model, which consists of three key elements: Social Presence, Cognitive Presence and Teaching Presence (Garrison, Anderson, & Archer, 2000). It is the interactions of all three elements of the model that produce the educational experience for participants as illustrated in figure 1.



**Figure 1.** The community of inquiry model (Garrison et al., 2000).

Drawing on the model, Social Presence is defined as the ability of participants to project their personal characteristics, thus presenting themselves as real people. Cognitive Presence is the “extent to which the participants in any particular configuration ... are able to construct meaning through sustained communication” (Garrison et al., 2000, p. 89). Teaching Presence consists of the design of the educational experience, as well as facilitation for the purpose of constructing meaningful and worthwhile knowledge (Garrison et al., 2000).

## INNOVATION

The two projects have been undertaken by the author examining the use of VC are drawn upon for this chapter. For the first project, VC was used to support lessons for primary school aged students in an Australian children’s hospital, both in the hospital classroom and on a ward. There were two classroom lessons organised where the students were connected via Skype. In the first lesson, which was the science lesson, there was one student on the ward and three students in the classroom. In the second lesson, which was the dental lesson, there was a student on a ward and seven students in the hospital classroom with a teacher. These two groups were connected in a multi-video connection to a dental assistant at a dental surgery. An iPad connected to 3G had been provided to the assistant so that she could talk with the students, show them the surgery and then show them how to clean their teeth. The students had a dental pack to support the lesson.

In the second project, VC was used at an Australian university with third year undergraduate pre-service teachers (PSTs) around the age of 21 years old. The focus of the subject was on the use of digital technologies. Initially, the tutorials were run face-to-face at the university, but as COVID-19 restrictions came in, the tutorials went completely online. There were five tutorial groups running with approximately 25 PSTs in each group. The tutorials went for three hours each week and there were six tutorials run for each group. The tutorials were supported by the university Learning Management System.

The process used to understand practices was underpinned by a qualitative methodological approach (Lincoln & Guba, 1985), embracing and understanding the contextual influences (i.e. physical and structural settings, social context – participants’ backgrounds, experiences, etc.) (Hennink, Hutter, & Bailey, 2011). The methods used included participant observation and informal interviews. Participant observation, as defined by Mulhall (2003), focuses on the observer “who undertakes prolonged observation, is involved in all the central activities of the organization, and whose role is known” (p. 308). The use of informal interviews, allows for discussion to probe emerging issues, and ask questions about unusual events in a naturalistic manner (Reeves, Kuper, & Hodges, 2008). In the context of the university setting, such discussions are useful as they can inform further practice.

## RESULTS

The use of VC was found to successfully support teaching and learning across the two projects. In the hospital project, students were able to connect with each other via VC for informal interactions (Social Presence), such as playing games, which were important precursors to formal learning. These games also helped to ensure the mental health of students was supported, where isolation on wards can have negative impacts. This presence is very important for students in hospitals confined to wards or to their homes, which can include sick students or self-isolated students.

In working with the hospital school students, the use of VC allowed students to experience authentic settings (dental clinic) that they would not normally have access to because of safety issues. The students were able to interact with experts in the field, in this instance the dental assistant (Teacher Presence). Additionally, it was found that the role of the teacher changed where experts supported the process. Teachers acted as facilitators mediating the interactions of the experts online and with the students (Maher, 2015). The teacher also provided prompts and scaffolds to assist the students' learning.

Cognitive presence was realised for the ward student through providing him with the same resources that the students in the class has access to (see figure 2). The student was able to communicate with the class teacher to ask questions and to clarify processors and procedures.



**Figure 2.** Resources used for science lesson.

In the university setting, using VC allowed PSTs to interact with each other as a large group and in small groups analogous with the process that would be undertaken in a face-to-face class. Students were able to work with the lecturer where explicit instruction was provided for the whole group as well as one-to-one discussions (Teacher Presence). The use of break-out rooms via Zoom allowed for students to interact and share in pairs (Social Presence). This peer connectivity is as important for university students as it is for school students, particularly in time like the COVID-19 where there is a lot of uncertainty.

The sessions were organised so that the PSTs presented in pairs at the beginning of each session which allowed for them to experience teaching using a VC medium. At that stage it was unclear when school students would return to schools so this experience provided an opportunity to experience the use of VC to support teaching. A Learner Management System used in conjunction with the VC system allowed students to access information prior to the tutorials and the use of Google Slides, via Google Classroom enabled them to document their ideas in groups during the tutorials, which could then be shared with the whole group (Cognitive Presence).

## IMPLICATIONS

One of the important findings to come out of the two projects was around the role of the teacher. When running online lessons, it is possible, and to some extent easier compared to face-to-face lessons, to involve an external expert who can provide focused information. Through the use of video conferencing “students hear things from ‘the horse’s mouth’ and can respond immediately with their own questions” (Comber et al., 2004, p. 8). The implication of having experts support some of the teaching is that the role of the teacher changes to become one of facilitation, mediating the interac-

tions of the experts online and with the students. The teacher also provides prompts and scaffolds to assist the students' learning. Pedagogical practices, such as breakout sessions, where students can chat in groups with the teacher moving from group to group using tools such as Zoom or Skype can allow for more collaborative opportunities, thereby enhancing teacher presence (Maher & Prescott, 2017).

As was illustrated in the hospital project, through the use of mobile technologies, students can experience authentic locations and interact with authentic people, thus facilitating authentic learning, which Collins (1998) defines as “the notion of learning knowledge and skills in contexts that reflect the way they will be used in real life” (p. 2). Authentic learning has the following features:

1. Provide authentic contexts that reflect the way knowledge will be used in real life
2. Provide authentic links
3. Provide access to expert performances and modeling of processes
4. Provide multiple roles and perspectives
5. Support collaborative construction of knowledge
6. Promote reflection to enable abstractions to be formed
7. Promote articulation to enable tacit knowledge to be made explicit
8. Provide coaching and scaffolding by the teacher at critical times
9. Provide for authentic assessment of learning within the tasks. (Herrington & Oliver, 2000, p. 25)

In relation to authentic locations, these might include places that are prohibited due to being dangerous. These locations might also be overseas or at other locations far away. Experiences provided might be for students learning another language where they can virtually visit an overseas location whilst communicating with a native speaker where they can ask questions. This helps build their language competency and knowledge of the country.

Learning online via VC can also provide students authentic links to audiences. While a student's audience may initially consist of peers and the teacher, this audience has the potential to develop beyond these immediate links (Richardson, 2005). “Other audiences can include relatives of the students, from the immediate family to grandparents, cousins etc.” (Maher, 2014, p. 129). The role of experts as highlighted in this chapter can also be drawn upon as authentic audiences. In the instance of PSTs, VC can be used to observe classroom lessons in situ where there is the opportunity to talk with teachers about their practice afterwards.

Social interactions are an important part of learning. During the normal day people have breaks, move around and have opportunities to social interact. It is important therefore, that students have the opportunity to interact with each other socially online. This concept is supported by Cummings, Butler and Kraut (2002) who state: “The evidence is clear that interpersonal communication is an important use of the Internet, if not its most important use” (p. 103). This can be achieved, as was the case in the university project, by providing break out rooms, where students are in small groups. In the hospital project, it was realised by providing games for students to share. Some examples of types of games that might be provided are illustrated in table 1:

**Table 1**  
Categories and Game Sites

Category of game	site
Puzzles	digipuzzle.net
Puzzles	onlinejigsawpuzzles.net
Puzzles	cbeebies.com
Board games	tabletopia.com
Board games	arkadium.com
Board games	pogo.com
Sports	learn4good.com
Sports	thekidzpage.com
Sport	gamekidgame.com
Action	safekidgames.com
Action	gamesgames.com/games/action
Action	Nick.com.au



Social interactions are particularly important for students in hospitals confined to wards or to their homes, which can include sick students or self-isolated students. As suggested by Onken Dumont, Ridgway, Dornan and Ralph (2002), recovery involves a social dimension - a core of social relationships by being connected with peers. If students are isolated but can participate cognitively assigning a buddy partner in the class to manage a device connected to VC software enables them to participate both socially as well as for content-related purposes. In the case of schools, the mobile device might be taken out at recess or lunch, which would help to facilitate this process. Importantly, if operating in a blended environment, if possible, meet face-to-face before moving to an online environment as this will positively impact on social presence.

In going online with the PSTs it was clear that they had limited experience in interacting online using Zoom. One of the strategies that was found to be useful early on was to provide opportunities for the PSTs to practise using Zoom where they got to explore the different features. This not only supported their content knowledge of the subject (Teacher Presence) but provided opportunities to develop skills and knowledge in using VC software such as Zoom. For the teaching staff, using Zoom with 30 people was a new experience and taking advantage of professional learning opportunities provided by the university helped to develop skills.

As the move from face-to-face tutorials to online tutorials was unexpected, a list of online resources was provided to students through which they might communicate with other class members (which some students took up) as shown in table 2:

**Table 2**  
Resources Provided to Students

Name of product	Type of product
Skype	VC software
Adobe Connect	VC software
Google Hangouts	VC software
Kahoot	Game-based platform
Socrative	Game-based platform
Aha slides	Game-based platform
Quizizz	Game-based platform
Poll Everywhere	Polling platform
Direct Poll	Polling platform
Slido	Polling platform
Mentimeter	Polling platform

One of the impacts of interacting with PSTs online for an extended period was that they got what is known as Zoom fatigue. This is caused as the cues that normally support interactions can be absent such as if a person is framed only from the shoulders up, where viewing hand gestures or other body language is eliminated (Sklar, 2020). Gaps between interactions tend to be longer which also adds fatigue. It was found that having breaks in the tutorial helped to diminish the effects of Zoom fatigue.

## FUTURE RESEARCH

Much of the research undertaken on VC has focused on planned use to support teaching and learning. There has been very little research in how VC has been implemented through unexpected circumstances such as the COVID-19. This chapter has touched on this briefly, but there needs to be a greater focus of this in the literature. Another aspect focused on in this chapter is the use of VC to support children in hospitals. To date, there is limited research focusing on how VC can support sick or immobilised children and adults. The focus of the work in this chapter has been on native speaking participants. There has been limited research exploring the needs on English as Second Language (ESL)

students. Considering that many students have access to VC technology via phones, this aspect could provide important information. Another area focused on in this chapter was around the aspect of fatigue when video conferencing. There is limited research in this area and considering that VC is becoming more commonplace in schools and universities, this is an area needing more research.

## References

- Collins, A. (1998). *Cognitive apprenticeship and instructional technology*. Cambridge, MA: BBN Labs.
- Comber, C., Lawson, T., Gage, J. A., Cullum-Hanshaw, A., & Allen, T. (2004). *Evaluation for the DfES video conferencing in the classroom project*. Coventry: BECTA. Retrieved from [http://www.global-leap.org/about/video\\_conferencing\\_final\\_report\\_may04.pdf](http://www.global-leap.org/about/video_conferencing_final_report_may04.pdf).
- Contreras-Castillo, J., Favela, J., Pérez-Fragoso, C., & Santamaría-del-Angel, E. (2004). Informal interactions and their implications for online courses. *Computers & Education*, 42(2), 149-168.
- Cummings, J. N., Butler, B., & Kraut, R. (2002). The quality of online social relationships. *Communications of the ACM*, 45(7), 103-108.
- Garrison, D. R., Anderson, T., & Archer, W. (2000). Critical inquiry in a text-based environment: Computer conferencing in higher education. *The Internet and Higher Education*, 2(2-3), 87-105.
- Hennink, M., Hutter, I., & Bailey, A. (2011). *Qualitative research methods*. Los Angeles, London, New Delhi, Singapore and Washington DC: SAGE Publications Ltd.
- Herrington, J., & Oliver, R. (2006). An instructional design, framework for authentic learning environments. *Educational Technology Research and Development*, 48(3), 23-48.
- Lincoln, Y., & Guba, E. (1985). *Inquiry*. Newbury Park: Sage Publications.
- Maher, D. (2015). A Window to the world: Video conferencing via tablets in schools. In Stavros (Ed.), *Advances in communications and media research, Volume 11*. Hauppauge, NY: Nova Science Publishers.
- Maher, D. (2014). Online learning in primary schools. In P. Lowenthal, C. York, & J. Richardson (Eds.), *Online learning: Common misconceptions, benefits, and challenges*. Hauppauge, NY: Nova Science Publishers.
- Maher, D., & Prescott, A. (2017). Professional development for rural and remote teachers using video conferencing. *Asia Pacific Journal of Teacher Education*, 45(5), 1-19.
- Mulhall, A. (2003). In the field: Notes on observation in qualitative research. *Journal of Advanced Nursing*, 41(3), 306-313.
- Nsibandé, R. (2007). Using professional dialogue to facilitate meaningful reflection for higher education practitioners. *Proceedings of the 30th HERDSA Annual Australian Journal of Teacher Education*, 39.
- Onken, S. J., Dumont, J. M., Ridgway, P., Dornan, D. H., & Ralph, R. O. (2002). *Mental health recovery: What helps and what hinders? A national research project for the development of recovery facilitating system performance indicators*. Prepared for National Technical Assistance Center for State Mental Health Planning, National Association of State Mental Health Program Directors.
- Reeves, S., Kuper, A., & Hodges, B. D. (2008). Qualitative research: Qualitative research methodologies. *Ethnography*, 5(1).
- Richardson, W. (2005). The educator's guide to the read/write web. *Educational Leadership*, 63(4), 24-27.
- Simoncini, K. M., Lasen, M., & Rocco, S. (2014). Professional dialogue, reflective practice and teacher research: Engaging early childhood pre-service teachers in collegial dialogue about curriculum innovation. *Australian Journal of Teacher Education*, 39(1), 27-44.
- Sklar, J. (2020). 'Zoom fatigue' is taxing the brain. Here's why that happens. National Geographic. Retrieved from <https://www.nationalgeographic.com/science/2020/04/coronavirus-zoom-fatigue-is-taxing-the-brain-here-is-why-that-happens/>
- Themelis, C., & Sime, J. A. (2020). From video-conferencing to holoportation and haptics: How emerging technologies can enhance presence in online education? In S. Yu, A.
- Shengquan, M. Ally, & A. Tsinakos (Eds.), *Emerging technologies and pedagogies in the curriculum* (pp. 261-276). Singapore: Springer.

# Experiential Learning Through Video Observations

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Experiential learning opportunities in public school settings for first-semester teacher candidates (TCs) discontinued with the closing of public schools during the COVID-19 Pandemic crisis. In order to offer a rigorous experience for first-semester TCs in the areas of effective tools and techniques for teaching English learners (ELs), an alternative pathway was devised to connect theory with practice. We continued to afford first-semester TCs opportunities to observe and reflect on tools and techniques helping ELs learn grade level content through the use of classroom videos and observation forms. Additionally, to continue opportunities for TCs to understand what ELs experience during their acculturation process in the U.S., TCs they watched the documentary film, “*I Learn America*” and complete viewing guide reflections.

**Keywords:** experiential learning; teacher preparation; teacher candidates; pre-service teachers; videos; observation tools; English learners; EL tools and techniques; self-reflections; ESOL methods; culture of ELs

## INTRODUCTION

When public schools closed due to the COVID-19 Pandemic, teacher candidates (TCs) in our ESOL methods course, needed alternative experiential learning plans. A course goal is to prepare all (TCs) to work with English learners (ELs) by providing a connection between theory and classroom teaching. TCs need to be equipped to meet EL cultural and linguistic needs (Pappamihiel, 2007). It is imperative to teach TCs research based, theory-to-practice tools and techniques (TTT) that teach language and content (de Jong & Harper, 2005; Nutta et al., 2014; Nutta et al., 2018). TCs need to be linked to expert teachers to better learn how to apply TTT (de Jong et al., 2013; Shulman, 2016). To continue to provide excellent undergraduate education programs, in spite of COVID-19, we revised experiential learning to include immersive learning through video observations of classroom teachers teaching ELs; intense noticing with an observational form; reflections; a cultural film with reflection questions, and two key assignments (Hougan et al., 2018).

## INNOVATION

The World Languages TESOL program at our university historically placed first-semester TCs in K-12 school settings to learn from classroom teachers teaching ELs. With that option off the table, our alternative plan for TCs to learn from classroom teachers was viewing videos of teachers teaching ELs. When viewing the videos, TCs identified TTT noticed from their instruction in the ESOL Methods course. This option is viable because research supports the strength of TCs learning TTT for future ELs by observing videos of accomplished teachers (Hougan et al., 2018). While observing these videos, TCs unpack and analyze appropriate TTT used by classroom teachers because they can slow down or pause the video to reflect about what they see (Santagata et al., 2007). Because instructors choose videos that highlight relevant TTT, TCs have the opportunity to see TTT maybe not otherwise observable in service learning experiences (Abell et al., 1996; Wang & Hartley, 2003). These viewing experiences are rooted in social cognitive theory which states that individuals learn from people engaging in targeted behaviors through live or media sources (Bandura, 1977; Lim, 2015; Miller, 2002).

Videos were chosen from Colorín Colorado, a national website serving educators of K-12 ELs (see <https://www.colorincolorado.org/video>). The 30 videos include various topics (e.g., answering guided questions; key academic vocabulary instruction; interactive reading; using realia; teacher commentaries). TCs used an observation form to track TTT noticed in the videos demonstrating classroom teachers assisting ELs. The TTT connected to their ESOL methods course

and assigned textbook, “*Show, Tell, Build*” (Nutta, et al, 2018). The observation form provides a place to analyze written lesson plans taught in the video with the Academic Subjects Protocol (ASP), a lesson planning tool adapting mainstream lessons to English learners’ proficiency levels; field notes section; codes for TTT noticed; and, reflection questions to analyze TTT viewed (Nutta et al., 2014). Using this observation form enabled TCs to notice targeted TTT as they observed interactions between the classroom teacher and ELs (Sherin et al., 2008).

A key assignment was a modified K-12 lesson plan using the ASP. TCs apply TTT appropriately in a content lesson by modifying instruction for each English proficiency level (e.g., beginner, intermediate, advanced). Instructors give **feedback** adding value to TC’s ability to modify instruction for ELs.

Another key assignment is a cultural immersion project. Previously TCs observed an EL in a K-12 classroom. Alternatively, TCs watched the documentary film, “*I Learn America*,” and completed reflection questions provided by “*I Learn America*”. This film portrays the language learning and acculturation experiences of ELs who moved to the U.S. TCs completed a culture immersion project based on an ELs in the film.

## RESULTS

TCs displayed their ability to recognize TTT necessary for ELs. The observation form was effective for helping TCs to notice valuable TTT necessary to help ELs. However, coding was tedious for the undergraduates. The Colorín Colorado videos proved valuable because they included teachers using TTT with ELs at various English proficiency levels.

“*I Learn America*” was beneficial for TCs to learn what ELs might face entering U.S. schools. TCs expressed in assignment comments how engaging and enlightening the film was, showing ELs’ acculturation and language learning process. TCs acquired valuable cultural information assisting them to learn about their future ELs. These preliminary claims are based on grading the two key assignments (Cultural Immersion Project and Lesson Plan Modification table). During pre-COVID-19 classroom discussions, TCs reported not observing their service learning mentor teacher using TTT taught in their ESOL methods course. This circumstance has been substantiated by other TCs in research (Durgunoglu & Hughes, 2010).

## IMPLICATIONS

When experiential learning cannot be offered in a K-12 school setting, a main goal of a university teacher education program is still to prepare TCs to teach ELs. The connection between theory and future practice to meet EL cultural and language learning needs must be established, noticed, connected, scaffolded, and applied (de Jong & Harper, 2005; de Jong et al., 2013; Nutta et al., 2014; Pappamihiel, 2007; Shulman, 2016). These elements are best offered when TCs are linked to expert teachers (e.g., through video observations or classroom experiences) demonstrating effective, research based TTT proven to help ELs learn necessary language to learn K-12 content (Bandura, 1977; de Jong et al., 2013; Shulman, 2016; ). Therefore, to maintain rigorous university goals, video sources used must be **prescriptive to notice** and **connect** TTT taught in theory courses (Hougan et al., 2018). Specific, guided **noticing** is essential for TCs when viewing classroom teachers through video (Sherin et al., 2009). Providing a guide to aide TCs while viewing will increase their ability to make viable connections between theory, classroom teaching, and future teaching practice (Hougan et al., 2018). The observation form is a tool which provides opportunity to focus on noticing specific TTT when teaching ELs.

To advance **scaffolded** experiences, TCs benefit from accessing **expert teacher thinking** and **decision-making** about instructional content, lesson goals, and rationale for chosen TTT (Hougan, 2018). Video commentaries from expert teachers’ thinking about teaching strengthens connections TCs make between theory and practice (Hougan et al., 2018). Therefore, when choosing videos for observation, the course instructor should include videos with commentaries of the classroom teacher. Videos in the Colorín Colorado website included teacher commentaries, as well as other materials that assisted TCs with noticing (e.g., lesson plans; standards covered; lesson plan materials; EL strategies; teacher’s reflection). Further **expert thinking** advice can be offered by **feedback** from the course instructor when grading key assignments, which was included our experiential learning plan.

Post-viewing video **reflections** are beneficial for TCs (Rosaen et al., 2011). Teacher lesson reflection is a skill TCs should acquire (Hougan et al., 2018) The observation form provides a focused reflection section for TCs to reflect on

TTT for their future practice; the effectiveness of the TTT; ELs' response to TTT; and, additional TTT that could be used in the lesson. The observation form demonstrated to be an effective tool for noticing and reflecting.

A post-viewing **discussion** between TCs or between TCs and the course instructor can reinforce future expert thinking. The discussion should include TCs' shared viewing, noticing, reflections, and experiences (Lambdin et al., 1997; Santagata & Guarino, 2011). Hence, a discussion assignment would be a valuable addition to the experiential learning plan.

## FUTURE RESEARCH

Moving forward, we will use classroom videos to include Colorín Colorado films (see link in References). To link TCs to expert teachers, we are adding materials created via an Office of English Language Acquisition (OELA) grant awarded to our university (e.g., Micro-credentialing of English Learner Teaching Skills (MELTS) modules, digests written by ESOL experts, videos of teachers teaching ELs [see link provided in References-soon to be released to the public]). We will partner with Teachlive, an interactive simulation practice, for TC's to practice TTT included in the MELTS modules, which includes coaching provided by EL experts (see Teachlive link in References). We will continue to use the "I Learn America" film when discussing acculturation of ELs in U.S. schools in conjunction with our required Cultural Immersion Project (see Appendix A).

We will continue to use the observation form, although without the codes for undergraduates (see observation form in Appendix B). The noticing and reflecting will help TCs plan their Lesson Plan Modification assignment incorporating appropriate TTT for ELs at their English proficiency levels according to our textbooks "Educating English Learners" and "Show Tell Build" and the companion website [www.englishlearnerachievement.com](http://www.englishlearnerachievement.com) (see coding scheme in Appendix C, Lesson Plan Modification assignment and Lesson plan table in Appendix D, and textbook links in References). We will continue to offer expert thinking through feedback offered when grading key assignments. A discussion assignment will be added through zoom breakout rooms for TCs to share their video viewing experiences.

Our team efforts maintained expected rigor and excellence of our university, and met objectives necessary for first-semester TCs learning to teach ELs. Colleague collaboration resulted in alternative pathways for TCs to complete experiential learning. All-in-all, in the face of adversity, we became a part of solutions that sustained hope in the midst of crisis.

## References

- Abell, S. K., Cennamo, K. S., Anderson, M. A., & Bryan, L. A. (1996). Integrated media classroom cases in elementary science teacher education. *Journal of Computers in Mathematics and Science Teaching*, 15(1/2), 137-151.
- Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Bandura, A. (1986). *Social foundations of thought and action: A social cognitive theory*. Englewood Cliffs, NJ: Prentice-Hall.
- Colorín Colorado (2020). Classroom Videos. <https://www.colorincolorado.org/videos/classroom-video>
- De Jong, E. J., & Harper, C. A. (2005). Preparing mainstream teachers for English-language learners: Is being a good teacher good enough?. *Teacher Education Quarterly*, 32(2), 101-124.
- Dissard, J. & Peng, G. (Producer/Director). (2013). Blooming Grove, NY : New Day Films, [2013]. <https://ilearnamerica.com/>
- Durgunoglu, A. Y., & Hughes, T. (2010). How prepared are the US preservice teachers to teach English language learners?. *International Journal of Teaching and Learning in Higher Education*, 22(1), 32-41.
- English Learner Achievement Network. (n.d.) <https://englishlearnerachievement.com/>
- Hougan, E., Johnson, H., Novak, D., Foote, C. & Palmeri, A. (2018). Exploring the influence of accomplished teachers' video and commentary pairing on teacher candidates' noticing and thinking about practice. *Journal of Technology and Teacher Education*, 26(2), 217-248.
- Lambdin, D., Duffy, T., & Moore, J. (1997). Using an interactive information system to expand preservice teachers' visions of effective mathematics teaching. *Journal of Technology and Teacher Education*, 5, 171-202.
- Lim, H. (2015). Social modeling effects on perception of police: Focus on indirect police contact experience among college students. *Policing: An International Journal of Police Strategies and Management*, 38(4), 675-689.
- Micro-teaching Credentials of English Learner Teaching Skills (MELTS). (n.d.) <https://ccie.ucf.edu/melts/>
- Miller, P. H. (2002). *Theories of developmental psychology* (4th ed.). New York, NY: Worth Publishers.
- Nutta, J. W., Strelbel, C., Mokhtari, K., Mihai, F. M., & Crevecoeur-Bryant, E. (2014). *Educating English learners: What every classroom teacher needs to know*. Cambridge, MA: Harvard Education Press

- Nutta, J. W., Strelbel, C., Mihai, F., Crevecoeur-Bryant, E., & Mokhtari, K. (2018). *Show, tell, build: Twenty key instructional tools and techniques for educating English learners*. Cambridge, MA: Harvard Education Press.
- Pappamihiel, E. (2007). Helping pre-service content-area teachers relate to English language learners: An investigation of attitudes and beliefs. *TESL Canada Journal*, 24(2), 42–60. doi:10.18806/tesl.v24i2.138
- Rosaen, C. L., Lundeberg, M., Cooper, M., Fritzen, A., & Terpstra, M. (2008). Noticing: How does investigation of video records change how teachers reflect on their experiences?. *Journal of Teacher Education*, 59(4), 347-360.
- Santagata, R., & Guarino, J. (2011). Using video to teach future teachers to learn from teaching. *Zdm*, 43(1), 133-145.
- Santagata, R., Zannoni, C., & Stigler, J. W. (2007). The role of lesson analysis in pre-service teacher education: An empirical investigation of teacher learning from a virtual video-based field experience. *Journal of Mathematics Teacher Education*, 10(2), 123-140.
- Sherin, M. G., Linsenmeier, K., & van Es, E.A. (2009). Selecting video clips to promote mathematics teachers' discussion of student thinking. *Journal of Teacher Education*, 60(3), 213–230.
- Shulman, L. S. (2016). What teachers should know and be able to do. *National Board*. Arlington, VA: National Board for Professional Teaching Standards.
- Snyder, C., Harris, C., Anderson, J., Holleran, S., Irving, L. M., Sigmon, S., Harney, P. (1991). The will and the ways: Development and validation of an individual differences measure of hope. *Journal of Personality and Social Psychology*, 60, 570-585.
- Teachlive. (n.d.) <http://teachlive.org/>
- Wang, J. & Hartley, K. (2003). Video technology as a support for teacher education reform. *Journal of Technology and Teacher Education*, 11(1), 105-138.

## APPENDIX A

### CULTURAL IMMERSION PROJECT

This project is based on your video observations from “I Learn America.”

Your project must be submitted as a Word document; it must be titled (Cultural Immersion project). To complete this project, you will use the assignment template provided in the Module. Please review the rubric for this assignment. Format your paper as outlined below.

#### **Outline details (Do not copy these into your assignment)**

#### **Use the provided Cultural Immersion Project Template**

#### **Part I: Reflection (60 points total)**

Read the instructions for retrieving video:

Watch "I Learn America" video (1hr 30 min long) (Available through the university library)

After viewing the film, elaborate on the following questions:

1. How did the students at International High make the school theirs?
2. What impact do you think the students’ embracing of the school has on the way they see themselves as newcomers to the United States?
3. How do you think their attitude impacts their chances of success in this country?
4. One way in which schools build a community is through common school events, such as café night, the prom, and graduation. What rituals did you notice in the film?
5. How does the prom build a positive school culture?
6. What are some of the challenges to building a community through a prom?

#### **Part II: ELL Characteristics (10 points total)**

Select one student from the film "I Learn America."

Examine ELL characteristics discussed in this course and your readings (Educating English Learners). Record as much as you can about an EL you observed in “I Learn America.”

1. Age:
2. Motivation/Attitude:
3. English Language Proficiency Level:
4. L1:
5. Family Dynamics:
6. How long the ELL has been in the US:
7. Subject areas strengths/weaknesses:
8. Participation in group work:
9. Gaps:
10. Support available to this ELL at school:

#### **Part III: Focus on Culture (230 points total)**

Research the culture of that ELL’s country of origin. For example, if an ELL you selected from the film is from Pakistan, you will be exploring the elements of Pakistan culture. Your project will include the following culture elements of the EL student’s country of origin:

**Introduction paragraph (20 points):**

Include the name of the country, geographical location, language spoken.

**Language/Linguistics (60 points total)**

Discuss the following aspects of language/linguistics that are important for teachers to know (i.e. the presence of grammar rules in English that do not exist in the ELL student's L1 or vice versa, or the presence/absence of certain sounds in one language but not in the other). Elaborate on the following:

1. Direction of language: Does she/he read from left to right, right to left, other? (10 points)
2. Alphabet: What type of alphabet does this language use? (10 points)
3. Phonology: What are some pronunciation differences that may pose challenges? (10 points)
4. Grammar: What rules are very different from English grammar? (10 points)
5. Syntax: What type of sentence structure (such as subject and verb order) does this language have? (10 points)
6. Morphology: How does this language make plurals, past tense, etc.? (10 points)

**Educational System (40 points total):**

1. Identify aspects of the educational system in EL's country of origin or his/her parents' native country. What are the parental expectations based on their native country's educational system? Which of these expectations might cause conflict in the school system in the United States? (10 points)
2. Duration of schooling in the ELL's native country: Is education free? How long are the students expected to attend school in their country? Is it mandatory to go to school? Are both boys and girls encouraged to finish school? (10 points)
3. Research attitude towards plagiarism in the EL's native country. Discuss how a teacher in the U.S. school can address this issue and help ELLs from that country succeed academically. (10 points)
4. Expectations for learning in the EL's country of origin: Are students in that country encouraged to interact with each other or are they supposed to listen in order to learn? What types of testing are common in the EL's native country? Is homework common? (10 points)

**Home Life (40 points total):**

1. Identify the EL's native country's home life aspects which may lead to problems in school acculturation and success in the U.S. schools. In what particular areas does the teacher need to be sensitive and aware? Ex: Do the students in that country have any specific dietary needs that the teacher should know about because it may affect the interaction of the student in the U.S. school classroom? (i.e. no pork, student fasting, etc.) (10 points)
2. Religious practices in the EL's country of origin and how these may affect the EL's performance in the U.S. school (10 points)
3. Gender roles in the EL's native country(10 points)
4. Family views on education in the EL's country of origin (10 points)

**Time and Space (10 points total)**

Discuss the following:

1. How important is punctuality in the EL's native country?
2. How much space are people accustomed to in the EL's country of origin?

**Student Behaviors (20 points total):**

1. Based on your research of the EL's country of origin, identify EL's student behaviors which may be exhibited in the classroom. Which ones may lead to miscommunication or misunderstandings in the school system in the United States (gestures, eye contact, manner of dress that are appropriate in the student's home culture, other)? (10 points)
2. What strategies would be beneficial in working with these ELs in schools in the United States? (10 points)



**Reflection on possible biases (20 points):**

Using your knowledge from the “Hidden biases” workshop, reflect on the following prompt about the EL students from the country you researched in this project:

What are the areas of difference between the EL students and yourself that could potentially trigger bias, either consciously or subconsciously, in your interactions?

**Works Cited (20 points):**

Minimum 5 sources

As you are researching the culture elements of the EL student’s native country, check several reliable Internet resources (**Wikipedia is not a reliable resource**). Attention: **Direct quotes are not allowed in this report**. Make sure to paraphrase sources correctly.

**Important:** When speaking of a culture's attitudes, values, perceptions and behaviors it is important to **use general terms** (such as, "it appears many prefer," "may," "in most situations," or other phrases) to prevent stereotyping the culture and to prevent ignoring individual differences that exist in all cultures.

**CULTURAL IMMERSION PROJECT**

**Part I: Reflection**

(A)

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.

**Part II: ELL Characteristics**

1. Age:
2. Motivation/Attitude:
3. English Language Proficiency Level:
4. L1:
5. Family Dynamics:
6. How long the ELL has been in the US:
7. Subject areas strengths/weaknesses:
8. Participation in group work:
9. Gaps:
10. Support available to this ELL at school:

## Part III: Focus on Culture

### Introduction

#### Language/Linguistics

1. Direction of language
2. Alphabet
3. Phonology
4. Grammar
5. Syntax
6. Morphology

#### Educational System

- 1.
- 2.
- 3.
- 4.

#### Home Life

- 1.
- 2.
- 3.
- 4.

#### Time and Space

- 1.
- 2.

#### Student Behaviors

- 1.
- 2.

#### Reflection on possible biases

#### Works Cited

**APPENDIX B**  
**OBSERVATION FORM**

Grade/Subject:

Teacher Observed:

Lesson Topic:

Lesson Objective:

**STEP 1-Do Task Analysis\* of the lesson plan per Academic Subjects Protocol:**

<b>SLIDE/TREAD ANALYSIS</b>	
<b>VERB</b>	<b>SLIDE or TREAD</b>
A. <i>Copy and paste the directions, instructions, procedures and/or task into the table below.</i> B. <i>Be sure each sentence is in a separate row.</i> C. <i><b>Bold</b> the verb(s) in each sentence.</i>	For each row in the table below, decide whether each <b>bolded</b> verb is a SLIDE or TREAD verb and type SLIDE or TREAD in this column.

**STEP 2-FIELD NOTES**

Write what you see the teacher doing to support ELs during the recorded lesson.

**STEP 3-Reflection:**

**Elaborate on the observed lesson using the following guiding questions:**

1. How did the teacher moderate language demands for the input, interaction, and output to promote comprehension? Provide examples.
2. How did the teacher elevate learner language? Provide examples.
3. How did the teacher activate background knowledge (cultural or content)?
4. What other tools/strategies, both verbal and nonverbal, would be appropriate to use in this lesson? Review Support Tools and Techniques.

Verbal tools/strategies:

Nonverbal tools strategies:

## APPENDIX C

### SHOW, TELL, BUILD\* CODING SCHEME FOR ACADEMIC SUBJECT INSTRUCTION

Tools & Techniques Codes	Show & Tell Tools & Techniques Description
<b>1</b>	<b>Graphic Organizers for Academic Subjects</b>
1-TGO	<b>Teacher</b> used graphic organizers to depict concepts, relationships, and/or structure, indicating parts of focus when describing them
1-SGO	<b>EL Student(s)</b> used graphic organizers to depict concepts, relationships, and/or structure, indicating parts of focus when describing them
<b>2</b>	<b>Infographics, Diagrams, and Animations</b>
2-TIM	<b>Teacher</b> used images and diagrams, indicating parts of focus when describing them
2-SIM	<b>EL Student(s)</b> used images and diagrams, indicating parts of focus when describing them
<b>3</b>	<b>Models, Manipulatives, and Realia</b>
3-TOP	<b>Teacher</b> used objects and props, indicating parts of focus when describing them
3-SOP	<b>EL Student(s)</b> used objects and props, indicating parts of focus when describing them
<b>4</b>	<b>Gestures, Dramatization, and Total Physical Response</b>
4-TAG	<b>Teacher</b> used actions and gestures connected with speech
4-SAG	<b>EL Student(s)</b> used actions and gestures connected with speech
4-TPR	<b>Teacher</b> used Total Physical Response to elicit demonstration of EL student(s)' comprehension
4-SPR	<b>EL Student(s)</b> responded to Total Physical Response elicitation
<b>5</b>	<b>Teacher Talk</b>
5-TSP	<b>Teacher</b> spoke clearly and at appropriate pace
5-TSP1	Appropriate for levels 1-2
5-TSP3	Appropriate for levels 3-4
5-TSV	<b>Teacher</b> used EL-focused simplified vocabulary & phrasing of spoken statements
5-TSV1	Appropriate for levels 1-2
5-TSV3	Appropriate for levels 3-4
5-TRP	<b>Teacher</b> repeated or paraphrased statements
5-TIW	<b>Teacher</b> wrote key terms, said them, & showed an image of them (input waltz)
5-SAL	<b>EL Student(s)</b> actively listened or showed engagement (notetaking, etc.) during teacher talk
<b>6</b>	<b>Leveled Questioning</b>
6-TLQ	<b>Teacher asked content questions of ELs</b>
6-TLQ1	Appropriate for levels 1-2
6-TLQ3	Appropriate for levels 3-4
6-TLQ5	Appropriate for levels 5-6
6-SLQ	<b>EL Student answered the content question</b>
6-SCQ	<b>EL Student asked for clarification about the content question</b>
6-TWT	<b>Teacher allowed wait time for response by ELs</b>
6-TWT1	Appropriate for levels 1-2
6-TWT3	Appropriate for levels 3-4
6-TRS	<b>Teacher followed-up to EL responses</b>

6-TRS1	By stating further details to levels 1-2 responses
6-TRS3	By recasting or expanding levels 3-4 responses
6-TCC	Teacher asked follow-up question to confirm comprehension based on ELs responses
6-TEE	Teacher asked follow-up question to elicit more expression based on ELs responses
7	<b>Cooperative Learning and Academic Discussions</b>
7-TPG	Teacher paired and grouped EL students based on EL level(s)
7-TSA	Teacher structured activities to foster participation of EL student(s)
7-SPA	EL student(s) actively participated in activity, communicating nonverbally and verbally
7-SPA1	Appropriate for levels 1-2
7-SPA3	Appropriate for levels 3-4
8	<b>Leveled Text</b>
8-TST	Teacher provided simplified and/or elaborated text for ELs
8-TST1	Appropriate for levels 1-2
8-TST3	Appropriate for levels 3-4
8-SST	EL Student(s) used leveled text
9	<b>Modified Text</b>
9-TMT	Teacher provided modified text for ELs
9-TMT1	Appropriate for levels 1-2
9-TMT3	Appropriate for levels 3-4
9-SMT	EL Student(s) used modified text
10	<b>Sentence Starters, Sentence Frames, and Word Banks</b>
10-TDP	Teacher used spoken or written discussion prompts for ELs
10-TDP1	Appropriate for levels 1-2
10-TDP3	Appropriate for levels 3-4
10-TDP5	Appropriate for levels 5-6
10-TWB	Teacher provided word banks for ELs
10-TWB1	Appropriate for levels 1-2
10-TWB3	Appropriate for levels 3-4
10-SWB	EL Student(s) referred to word banks for speaking or writing
10-TSF	Teacher provided sentence frames for ELs
10-TSF1	Appropriate for levels 1-2
10-TSF3	Appropriate for levels 3-4
10-SSF	EL Student(s) referred to sentence frames for speaking or writing

\*From *Show, Tell, Build: Twenty Key Instructional Tools and Techniques for Educating English Learners*, for more information:  
[https://englishlearnerachievement.com/?page\\_id=1225](https://englishlearnerachievement.com/?page_id=1225)

## APPENDIX D

### LESSON PLAN MODIFICATION ASSIGNMENT INSTRUCTIONS

1. Locate an original lesson plan.
2. Attach lesson plan to the of the Lesson Plan Modification Table.
3. Download the Lesson Plan Modification Table
4. Copy and Paste the Directions/Instructions/Tasks portion of original lesson plan to the top of the Lesson Plan Modification Table
5. Complete Phase 1, Step 1 of the ASP-Task Analysis
6. Complete Phase1, Step 2 of the ASP-Gap Analysis
7. Complete Phase 2, Step 1 of the ASP-Add Support
8. Complete Phase 2, Step 2 of ASP-When will support be conducted
9. Complete Phase 2, Step 3 of the ASP-When and Who will provide support

## LESSON PLAN MODIFICATION TABLE

(Use this table to complete your Modified Lesson Plan assignment)  
Original lesson plan (Copy and Paste):

PHASE 1-Step 1 SLIDE/TREAD ANALYSIS		PHASE 1-Step 2 ANALYZE STUDENT GAP	PHASE II-STEP 1 ADD SUPPORT	PHASE II-STEP 2	PHASE II-STEP 3	PHASE II-STEP 3
				Universal, Supplemental or Alternative Time	Pre-teach, teach, co-teach, post-teach	Instruction Provider
<b>VERB</b>  <b>A. Copy and paste the directions, instructions, procedures and/or task into the table below.</b>  <b>B. Be sure each sentence is in a separate row.</b>  <b>C. Bold the verb(s) in each sentence.</b>	<b>SLIDE or TREAD</b>  For each row in the table below, decide whether each <b>bolded</b> verb is a <b>SLIDE</b> or <b>TREAD</b> verb and type <b>SLIDE</b> or <b>TREAD</b> in this column.	<b>GAP ANALYSIS</b> For each row, analyze the gap for <b>each</b> of the following:  <b>Beginner (B):</b>  <b>Intermediate (I):</b>  <b>Advanced (A):</b>	<b>ADD SUPPORT</b> For each gap, add the necessary verbal and non-verbal support needed for each of the following:  <b>Beginner:</b>  <b>Intermediate:</b>  <b>Advanced:</b>			
1.		<b>Beginner:</b>  <b>Intermediate:</b>  <b>Advanced:</b>	<u>Beginner</u> Verbal support: Nonverbal support: <u>Intermediate</u> Verbal support: Nonverbal support: <u>Advanced</u> Verbal support: Nonverbal support:			
2.		<b>Beginner:</b>  <b>Intermediate:</b>  <b>Advanced:</b>	<u>Beginner</u> Verbal support: Nonverbal support: <u>Intermediate</u> Verbal support: Nonverbal support: <u>Advanced</u> Verbal support: Nonverbal support:			



PHASE 1-Step 1 SLIDE/TREAD ANALYSIS		PHASE 1-Step 2 ANALYZE STUDENT GAP	PHASE II-STEP 1 ADD SUPPORT	PHASE II-STEP 2	PHASE II-STEP 3	PHASE II-STEP 3
				Universal, Supplemental or Alternative Time	Pre-teach, teach, co-teach, post-teach	Instruction Provider
3.		<p><i>Beginner:</i></p> <p><i>Intermediate:</i></p> <p><i>Advanced:</i></p>	<p><u>Beginner</u> Verbal support: Nonverbal support:</p> <p><u>Intermediate</u> Verbal support: Nonverbal support:</p> <p><u>Advanced</u> Verbal support: Nonverbal support:</p>			
4.		<p><i>Beginner:</i></p> <p><i>Intermediate:</i></p> <p><i>Advanced:</i></p>	<p><u>Beginner</u> Verbal support: Nonverbal support:</p> <p><u>Intermediate</u> Verbal support: Nonverbal support:</p> <p><u>Advanced</u> Verbal support: Nonverbal support:</p>			
5.		<p><i>Beginner:</i></p> <p><i>Intermediate:</i></p> <p><i>Advanced:</i></p>	<p><u>Beginner</u> Verbal support: Nonverbal support:</p> <p><u>Intermediate</u> Verbal support: Nonverbal support:</p> <p><u>Advanced</u> Verbal support: Nonverbal support:</p>			

**REFERENCES:**

### SUMMARY OF ASSIGNMENT & RUBRIC

STEPS	EXPLANATION	POINTS
1	Choose a lesson plan to modify *Must be copied and pasted at the top of the Lesson Plan Modification assignment table or submitted as a separate file in the assignment link to be considered for grading	Must have
2	A. Complete a <b>SLIDE/TREAD analysis</b> for the directions, instructions, procedures and/or task in your lesson plan modification table (make sure SLIDE/TREAD are capitalized, as they are acronyms). B. Be sure each sentence is in a separate row. C. <b>Bold</b> the verb(s) in each sentence.	60
3	Complete a <b>Gap Analysis</b> by analyzing the gap for <b>the beginner, intermediate and advanced</b> for each of the verbs in the Slide/Tread analysis.	30
4	For each Gap, <b>Add Support</b> . Be sure to include the following with <b>bolded</b> headings indicating the type of support:	
	A. <b>Non-Verbal</b> Supports (Examples can be found in chapter Models, Manipulatives, Realia)	30
	B. <b>Verbal</b> Supports (Examples can be found in chapter Teacher Talk)	30
	C. <b>2 Leveled Questions</b> (Some examples can be found in <i>Show, Tell, Build</i> pages 55-63) <u>for each</u> : Beginner Intermediate Advanced	60
	D. Include <b>Show and Connect to Background Knowledge</b> activity *Indicate how you will modify for the Beginner, Intermediate and Advanced EL	30
	E. Include <b>Show and Connect to Content/Academic Vocabulary</b> *Indicate how you will modify for the Beginner, Intermediate and Advanced EL	30
	F. Include at least one <b>graphic organizer</b> ( <i>Show, Tell, Build</i> pages 19-26; 159-165; 183-189), <b>infographics, diagrams and animations</b> ( <i>Show, Tell, Build</i> pages 27-36) and <i>explain</i> how it will be used for each level of English proficiency (attach)	30
	G. Include <b>modifications to lesson plan assessment for all levels of English proficiency</b> (attach)	30
	H. <b>Leveled/Modified texts</b> <i>Show, Tell, Build</i> pages 73-88)-create in a ppt presentation-slides for Beginner, Intermediate and Advanced (attach)	30
	I. Included how instruction delivered (universal, supplemental, alternative; when instruction delivered (pre-teach, teach/co-teach, post-teach); and, who will provide instruction	20
7	<b>REQUIRED HEADINGS (bolded):</b>  <b>Non-Verbal Supports</b> <b>Verbal Supports</b> <b>Leveled Questions</b> <b>Show and Connect to Background Knowledge</b> <b>Show and Connect to Content/Academic Vocabulary</b> <b>Graphic Organizer</b> <b>Leveled/Modified text</b> <b>Assessment</b>	10
8	<b>References</b> of resources are included	10
	<b>TOTAL POINTS</b>	<b>400</b>