

Preface

Public schools and universities closed with little notice at the start of the pandemic (Richards, 2021) and pivoted en masse to online instruction. Models varied, fully online, hybrid, in person with resources or meetings digitally. To “zoom” became a ubiquitous term, eliciting either gratitude or dread, depending on one’s comfort level with technology-based tasks. The results of this impromptu experiment were mixed. In many cases digital instruction was useful and functional, interrupting patterns of bullying and mitigating previous struggles to learn (Richards, 2021). In others, it devolved into confusion and lack of learning (Dickler, 2021).

We know that technology can bring many benefits to learning experiences. Past research has documented increases in engagement, personalized learning, expansion of available resources, and more efficiency as benefits of including technology in the learning experience (Sullivan & Baker, 2014). We also know that, once adopted, technology seems to stay in our lives. The famous example of companies that stuck to fax technology because email was untrustworthy resulting in loss of efficiency and business comes to mind, not only for its own comparison, but also because it leaves out discussion of previous technologies that the fax replaced such as telegrams, mail, and the pony express. While any of these versions of conveying information may still have a place in useful communication, daily use heavily favors email at this time and even that is being rapidly replaced by texts. So it is with new technologies and new uses for current technologies.

The question before us, then, is not whether to continue to incorporate digital tools into learning situations, but rather, how? Factors such as socio-economic status, content, resources, and the abilities and experiences of students are but some of the characteristics impacting the success of online teaching during the pandemic and in the future. Determining under what circumstances the pivot went well is crucial for adapting thoughtfully to the next phase of instruction and learning at all levels. In this task, case studies are invaluable to provide a platform for context and analysis.

Incorporation of technology into learning situations has been underway at the university level for decades, fueled mostly by a quest for efficiency and higher enrollments (Open Assessment Technologies, 2021). Some programs and faculty have had years to experiment with online resources, relying on support centers and specialists for assistance. Others found themselves transitioning in a hurry, with only months to acquire hardware and experience. Public and private K-12 schools had a tougher path, with little to no infrastructure in place and a culture that derided digital education as inherently ‘less than’. And yet, success stories can be found at all levels and within all circumstances. As schools began to migrate to fully online instruction when lockdowns started, teachers in PreK-12 settings faced unique challenges around student access to digital learning and effective practices.

SECTION 1

In the first chapter, “Navigating Emergency Remote Teaching During the COVID-19 Pandemic: A Case Study of Rural Elementary Teachers,” the author looks at online teaching specifically for students in remote areas who might be experiencing one or more of these issues. The authors provide discussions of teaching adjustments necessary specifically in rural areas.

The second chapter, “Leveraging Technologies to Promote Clarity in Learning During the COVID-19 Pandemic: A Case Study,” highlights a fifth-grade teacher’s practices while addressing math concepts. Both synchronous and asynchronous learning ideas are explored. This case includes teaching ideas for students with little or no internet at home.

The third chapter, “From the Student’s Perspective: An Analysis of In-Person, Hybrid, and Online Learning During the Pandemic,” reviews a unique case of a sixth-grade student who experienced instruction in all three modes, fully online, hybrid, and in-person, over the course of the year. Using a structured set of prompts, the student shares insights about what worked in each modality.

The fourth chapter, “Digital Texts and Student Engagement: What Teachers Need to Know When Planning for Effective Literacy Instruction,” considers one of the practices widely used during the pandemic, online reading, in the context of students who struggled to be successful reading in that format. The authors apply a conceptual framework to guide teacher choices to foster engagement and enjoyment.

The fifth chapter, “Promoting Home to School Connections in the Digital Age,” outlines communication tools for supporting student academic growth. The authors suggest practical applications such as apps and internet tools to help teachers communicate effectively with parents.

SECTION 2

The sixth chapter, “Strengths and Challenges of Digital Tools in EAP Remote Learning Settings,” studies digital learning tools for engagement and motivation in English for Academic Purposes courses in higher education. The authors review opportunities to support learning needs and student preferences for these programs.

The seventh chapter, “Developing Written Argumentation Skills With an Educational Simulation Game (ESG): The Design and Implementation of the GlobalEd ESG,” describes the design of an educational simulation game and the effects of use in an authentic classroom setting. Games are particularly beneficial to remote learning.

The eighth chapter, “Alt-Instruction: Faculty Development Programming to Address Campus Equity Issues During the Pandemic,” develops remote learning practices with student equity issues at the core. The authors describe the process by which these practices were helpful in the rapid transition to remote learning.

The ninth chapter, “Piloting Artificial Intelligence (AI) to Facilitate Online Discussion in Large Online Classes: A Case Study,” reviews the course design and teaching experience using an artificial intelligence (AI) platform for managing online, asynchronous discussions. Professors share insights from their experience implementing this digital tool.

The tenth chapter, “Reflective Learning With Video-Based Annotations,” compares two video annotation systems with regards to pilot tests with teachers in training. The authors review applicability for various remote learning settings.

The eleventh chapter, “A Case of Innovative and Successful Use of Digital Resources for Online Learning: Quality Evaluation Tools for Learning Objects,” provides a review of the literature and an evaluation of digital tools for engineering courses. The authors provide a conceptual framework and practical review.

The twelfth chapter, “The DACUM Virtual Institute: A Case Study in Designing for Adult Learners,” reimagines an existing five-day institute for a virtual format. The authors detail a mix of synchronous and asynchronous activities to transfer an effective in-person institute into an online experience.

The thirteenth chapter, “Applying Chickering and Gamson’s Principles to Engage Today’s Online Learner: A Literature Review,” discusses engaging undergraduate students with literature. The authors provide a review of the principles and applications toward technological tools for remote learning.

In the fourteenth chapter, “From the Classroom to the Breakout Room: The Many Embedded Ways a Librarian Can Teach Information Literacy,” the author describes embedded librarianship and how to one such librarian adjusted practices during the pandemic. The author also reviews which practices might remain for the future.

The final chapter, “Analytical Thinking in a Time of COVID (and Trump): College Students, Elections, and Data Analysis,” analyzes the experience of a political science professor teaching remotely for the first time during the pandemic and through a controversial election. The author describes techniques to help focus on learning goals.

As the field of education, at all levels, grapples with the changes to instruction wrought so quickly during the pandemic, teachers and schools will have to decide when and how to stick with the face-to-face methods and when and how to incorporate the new digital methods. Referring back to the fax and email example, no one uses only a fax machine in this day and age, and everyone uses email. Doing anything else sacrifices efficiency for the sake of tradition. But fax machines are still in use, for very specific purposes, and they work well for those purposes. The key is knowing how and when to use the tools available to best meet your objectives. Those that can and do adapt will thrive, and those that cannot will fall by the wayside. The cases presented in this text can help teachers, schools, and higher education organizations to become those that thrive.

Pamela Sullivan
James Madison University, USA

Brian Sullivan
James Madison University, USA

Jessica Lantz
James Madison University, USA

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Preface

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