INTRODUCTION

Higher education changed across college and university campuses in the middle of the spring semester in 2020. For those faculty members not already engaged in online learning, this change was abrupt and jarring. Although there are a growing number of fully online or distance learning degree granting institutions, in the fall of 2018 students enrolled in exclusively distance education courses accounted for only 16.6 percent of the total enrollment at postsecondary institutions (NCES, 2019). This includes undergraduate, graduate, public, and private. Only 18.7 percent of the student population in higher education were enrolled in at least one distance education course (NCES, 2019). There is now an expectation that the other 64.7 percent of students not enrolled in any distance learning course will learn from a distance. Whether they are majoring in anthropology or architecture, biblical studies or business, nanoscience or nursing, this expectation may involve learning be fully at a distance or a blend of online and within the storied halls of an academic building. Who knows what higher education will be like in the short term? In any case, we hope that those of us that have always engaged in teaching and learning on campus will return better than before, taking ideas that we implemented during pandemic teaching and applying them in new situations. The constant across all college and university campuses, one that we share with those postsecondary institutions that have always been fully online, remains the same: to ensure that students are learning. We suspect that the future will include increased amounts of distance learning. Faculty have embraced their responsibility to impact learning, irrespective of the format of their course and programs of study. Let's seize on what we have learned to improve postsecondary education in any format, whether face to face or from a distance.

College and university faculty across the globe have stepped up and continued to teach and mentor their students as they pursue their program of study that will prepare them to graduate and enter the workforce or postbaccalaureate education. Whether we teach a 4/4 load or a 2/1, we are still responsible for fostering, nurturing, and sustaining the interest and engagement of our students through distance learning as they prepare for the next step in their professional careers. From our home workspaces, we continued to motivate our students (mostly) to engage in thoughtful inquiry and discourse that continue to make the struggle of learning joyful. We have continued to provide feedback on problem-solving sets, papers, and capstone projects at the right time and in the right way to each student so as not to "do" the work for the students. Faculty know where to go next and how to balance the breadth and depth of the content. We have re-purposed our know-how to invest in the "after class work" of grading, preparing for the next class meeting, developing resources, and still maintaining our scholarship and service requirements.

The world changed in early 2020. And we'd like to take a moment to acknowledge the heroic efforts of PreK–16 educators worldwide who, during a





Doug Fisher (San Diego State University, Educational Leadership) introduces the goals of this version of the book.

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To read a QR code, you must have a smartphone or tablet with a camera. We recommend that you download a QR code reader app that is made specifically for your phone or tablet brand.

pandemic, used what they knew to create meaningful learning experiences for students. In most cases, we didn't miss a beat. Like the health-care workers who rose to the challenge, faculty stepped up and made sure that students continued to learn. We didn't say that it was easy. And we didn't say that we wanted to learn this way. But learn we did. And now that we did learn, it's time to plan for distance learning using what we know now. Again, the 64.7 percent of students not enrolled in any distance learning course in 2019 will likely learn from a distance in the 2020–2021 academic year.

To be clear, the pandemic teaching of 2020 was really not distance learning. It was also not an independent study from March to May. Independent study students still have the option to sit down one-on-one and engage in face-to-face teaching and mentoring. That is not what happened here. We found ourselves leaving for Spring Break one day and abruptly transitioning to crisis teaching one week later. With that behind us, we now have time to be more purposeful and intentional with distance learning. What should not be lost is that as a field we learned more about what works by at times experiencing what didn't work in a remote learning environment. It heightened our sense of what we already knew in face-to-face classrooms (Hattie, 2018):

- Fostering student self-regulation is crucial for moving learning to deep and transfer levels.
- Learning accelerates when the student, not the faculty member, is taught to be in control of learning.
- There needs to be a diversity of instructional approaches (not just some video lectures or narrated slide decks and then some off-line independent work).
- · Well-designed peer learning impacts understanding.
- Feedback in a high-trust environment must be integrated into the learning cycle.

Let's use what we have learned and are continuing to learn whether in a face-to-face or distance learning environment. As a part of face-to-face teaching, let's build our students' capacity (and our own) for distance learning. Now we have time to use evidence about what works best to impact students. And that's the purpose of this book—to apply the wisdom of **Visible Learning**® research to distance learning. But before we do so, we need to acknowledge the potential differential impact of distance learning on students.



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A VISIBLE LEARNING® PRIMER

There exists a significant amount of published research about teaching and learning, and more studies are produced each year. Many of these studies come from our very institutions, conducted by our colleagues across campus, down the hall, or in our own research group. Who doesn't want to make research- or

evidence-based decisions about teaching and learning? It's hard to sift through to figure out what to do. It seems that everything "works" so any choice we make seems reasonable. Every colleague has their preferred way of teaching and staunchly defends that preferred way in department meetings. But the fact of the matter is that some things work *best* in accelerating students' learning. Thus, it's useful to know what works best to accelerate students' learning and leverage that knowledge in our distance learning environment.

Enter the Visible Learning database. It's easily accessible at www.visiblelearningmetax.com. This database focuses on meta-analyses, or aggregations of studies, to determine the impact that specific actions or influences have on students' learning. These meta-analyses use an effect size, which is a statistical tool to scale the impact. To date, the database includes over 1,800 meta-analyses with over 300 million students. The average impact on students' learning from all the things we do is 0.40 (effect size). Thus, influences over 0.40 are above average and should accelerate students' learning. Those below are less likely to ensure that students learn a full year of stuff for a year of school. That does not mean we ignore those influences below 0.40, but rather we are cautious and we think about ways that we implement those practices.

You may have heard about the Visible Learning database and, through a quick search on the internet, see that many of the results of that search reference the PreK–12 classroom. Although much attention has been given to the translation and implementation of the specific actions or influences into PreK–12 classrooms, there are a considerable number of meta-analyses that come from studies of teaching and learning in higher education. For example, the effect size for problem-based learning draws from several meta-analyses in the college classroom, health sciences, pharmacy, nursing, and medicine (e.g., Sayyah, Shirbandi, & Rahim, 2017).

Let's consider a few additional examples. Are you surprised that students' prior achievement is related to their future achievement? The effect size is 0.59. Yes, students who have achieved in the past are likely to achieve in the future. The database confirms what we expect. Are you surprised that boredom has a negative effect on learning? The effect size is –0.47. Learning opportunities are lost when students are bored. There is a logic to the evidence summarized in the Visible Learning database, right?

As another example, the instructional strategy jigsaw has an effect size of 1.20. Powerful! It should work to accelerate student learning. Our personal experiences with this approach, when implemented correctly, confirm it. But, since we are talking about distance learning, it's important to note that none of the jigsaw studies collected for any of the meta-analyses were done from afar. In this case, we'll have to leverage our teaching expertise and identify the essential components of a jigsaw and determine how it can be used online.

Several themes are at the heart of Visible Learning.

 The first is that a faculty member's investment in learning means that there is a drive to foster each student's increasing ability to recognize when they are learning, when they are not, and how to go about





John Almarode (James Madison University, Education) explains the principles of Visible Learning.

resources.corwin.com/ DLPlaybook-college **fixing it.** With distance learning, we must foster this type of agency in our undergraduates. That means that teacher clarity (clarity about the learning) and feedback are crucial. You will find separate modules devoted to these two things elsewhere in this book.

- 2. The second theme is that faculty members seek to know the impact of their instruction in terms of progress and achievement and take steps to refine their approaches. That means that we have methods for discovering what students already know in order to minimize wasted instructional time such that we can focus on needed learning experiences. Further, the individual student is the unit of analysis—we know what works, what works when, and what works for whom.
- 3. The third theme is that the mindframes of faculty members, which is to say dispositions and beliefs, are in the driver's seat. That means that we collaborate with one another, talk about learning more than teaching, and invest in relationships with our students and colleagues in order to be an agent of change.

These themes transcend the delivery method. Whether face-to-face with students or in virtual or distance environments, these themes endure. On the facing page, take a few minutes to reflect on these themes and note how you accomplish these in face-to-face classes. Then consider what these might look like in virtual spaces.

VISIBLE LEARNING AND DISTANCE LEARNING

This brings us to the effect size of distance learning itself. We know the effect size of technology remains low and has been so for the last fifty years. As Dylan Wiliam has often said, technology is the revolution that is still coming! The effect of distance learning is small (0.14) but that does not mean it is NOT effective—it means it does not matter whether teachers undertake teaching in situ or from a distance over the internet (or, like when John started in his first university, via the post office). What we *do* matters, not the medium of doing it.

There are some technology elements that are worth attending to. The highest effects of digital technology are interactive videos (0.54), intelligent tutoring systems (0.51), in writing (0.42), and in mathematics (0.35). The lowest effects are the presence of mobile phones (at -0.34, please turn them off), and the presence of one-on-one laptops (0.16). Of course, the studies that were used to calculate the effect sizes involved purposeful and planned learning in virtual or distance environments and in face-to-face classrooms, not crisis pandemic teaching.

NOTE TO SELF

How do you enact these themes in face-to-face classrooms? How can they occur in virtual classrooms?

THEME	FACE-TO-FACE SETTINGS	VIRTUAL/DISTANCE SETTINGS
Teacher clarity and feedback is used to fuel students' ability to become their own teachers—take ownership of their learning.		
Methods for measuring the impact of teaching are used to understand each student's progress and achievement, with adjustments to teaching made accordingly.		
Investment in collaboration with adults and relationships with students is continuous.		

online resources &

 $Download\ forms\ throughout\ the\ book\ at\ \textbf{resources.corwin.com/DLPlaybook-college}.$





John Hattie (University of Melbourne, Education) talks about distance learning in higher education and what's different.

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When people see that there is an effect size of 0.14, they incorrectly assume that distance learning is not effective. But let's take a closer look. In comparison with traditional building-based learning, distance learning is not an accelerator. It's also not negative. That means that the setting isn't the deciding factor. Nor should it be interpreted that "distance is disastrous." What is far more important are the methods of instruction that spark learning, not the medium. Consider what some of those technologies with higher effect sizes have to offer. Interactive videos require students to engage in active learning, not just passive viewing (something students do in classrooms, too). Intelligent tutoring systems provide rapid feedback and customized instruction based on what the learner knows and doesn't know. Similarly, high-performing classroom teachers use responsive feedback and instruction that reduces teaching what is already known in favor of what needs to be known next.

The choice of task matters critically. It is the choice of tasks relative to where students are now and where they need to go next that advances their learning.

- Use technology for great diagnosis of what students need to learn.
- Share scoring rubrics and success criteria up front with students before they get too involved in the task.
- Be clear. Clarity about learning matters more when students are not in front of you to correct, cajole, and to give instant feedback. You cannot immediately evaluate progress as you do in the physical classroom.
- Build formative evaluation opportunities into the tasks.

We need to view technology use like planning for next week's class and creating resources: It is the means and starting point, not the core, of teaching. It is the decisions we make as students are learning, as we listen to them think aloud, as we give them alternate strategies and help them work with others to jointly advance learning, as we formatively evaluate our impact, that are important.

- Optimize the social interaction aspects (we do not want to be talked at, but learn with).
- Check for understanding (listen to the feedback from the students about their learning even more when you do not have the usual cues of the classrooms).
- Make sure there is a balance between the precious knowledge and the deep thinking (too often online favors the former over the latter).

Bottom line: Understand what it means to be a learner online. When the usual peer interactions are often not as present, the faculty member's observational skills are different, and there is too often an overemphasis on content and repetition.

REFLECTIVE WRITING This is just for you. What new connections are you making between teaching and learning in face-to-face environments and in distance learning environments? What do your students need to know and be able to do to function well in both mediums?

A QUESTION OF EQUITY

Students whose learning has been traditionally compromised in our colleges and universities remain at risk in distance learning. This includes English learners; students with disabilities; students who live in poverty; those from traditionally underrepresented ethnic and racial groups; students who identify as gay, lesbian, bisexual, or transgender; and those who have experienced significant trauma. Colleges, universities, and faculty members should redouble their efforts to ensure that the needs of these students are met. Our universities (San Diego State University, James Madison University, and The University of Melbourne) devoted significant time and energy to meet the equity needs of our students at a distance.

- Meet students' basic needs.
- Ensure equitable access to learning resources.
- Proactively design responsive, restorative structures.



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But there are students who may not have been considered in the past who are also at risk when it comes to distance learning, including students

- Who struggle with low self-regulation and are highly dependent on the structure provide by face-to-face classes and the various services offered on campus for academic support or student services
- Who return with high levels of stress and social and emotional concerns
- With limited proficiency in using quality learning strategies and guidance necessary to promote development
- Who already had a lack of progress in their program of study for whatever reason
- Who have low concepts of themselves as learners
- Who lack proficiency in the critical reading and numeracy skills needed to
 move to the next level—particularly first-year students or freshmen as they
 engage in their first postsecondary courses or general education courses
 and are thus more likely to become part of the "Matthew effect" in which
 the rich get richer while the poor get poorer (Stanovich, 1986)
- Living at home where they are confronted with challenges related to their parents or guardians, siblings, and others; there will be an exacerbation of physical and emotional health issues
- With parents or guardians who now unexpectedly have limited financial capacity to provide the necessary financial support while at home.

All students, and especially those who are at greater risk of not making expected progress, must be targeted for proactive supports that address their equity needs and build their capacity to learn at a distance. Throughout this book, we include examples of ways that faculty can address the needs of these students and work to ensure that the equity gains that have been realized are not lost. In addition, we see distance learning as an opportunity to engage students in different ways and potentially address some of the needs that they have that could not have been met in traditional classes. We want to promote the notion that what we have learned through the research evidence of distance learning (not just our recent emergency efforts) should be leveraged to improve teaching in virtual environments. We also want to advocate that what we have learned through the research evidence on learning in any environment should inform our future efforts and improve our readiness, as well as our students' capacity, to continue their postsecondary education regardless of the setting.

We are still active faculty members, committed to teaching, scholarship, and service. The unexpected transition to remote learning doesn't mean we no longer know how to teach. We can still impact the lives of our students and know that we made a difference. We hope that this playbook provides you with examples of familiar tasks and ideas that you can mobilize at a distance to ensure students learn.





Nancy Frey (San Diego State University, Educational Leadership) delivers a message to our colleagues.

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