

Preface

Attention is not in itself such an automatic process as you might presume. To make it work, it has to be activated, and if not, the opportunity to learn slips past.

—Hattie & Yates, 2014

A 1999 study conducted by Christopher Chabris and Daniel Simons, and replicated numerous times since, asked college students to watch a video for 75 seconds and count the number of times the individuals on the screen passed around a basketball. About halfway through the video, either a woman with an umbrella or a person dressed in a gorilla costume walked across the screen in the middle of the action for about 5 seconds. After watching the video, participants were questioned about what they had observed in the video. Almost half—46% to be exact—did not report seeing the unexpected event to which they were exposed.

You may be asking yourself: “How could anyone miss a gorilla walking across the screen? Or a woman with an umbrella in the middle of a basketball exercise?” Although it seems unlikely, these findings clearly illustrate that not everyone walks away with the same experience after viewing a video—or any other kind of learning, for that matter. When asked to focus intently on something, our brains may miss events that unfold right in front of our eyes; alternately, we may become distracted by events happening on the periphery.

Let’s revisit this example from a different perspective—that of what we would like students to learn when asking them to view recorded content at home. If the video in the Chabris and Simmons (1999) experiment was designed as a flipped learning tool, then the teacher’s goal might be that students *will be able to correctly identify the number of times a ball was passed*. However, the teacher may have failed to consider the many factors that influence whether or not students would be able to focus on and process the video’s content. What he or she may find is that roughly half of his or her students were able to hyper-focus and achieve the learning goal, while the other half were distracted by other extraneous factors or even by their readiness to engage

with the material. If the teacher assumed he or she would be starting with everyone on the same page the next day, he or she would be wrong.

The point is this: Teachers need to take active measures to guide student focus and attention to specific learning goals, particularly when students are acquiring content outside of school. And they need to account for the differences that will inevitably emerge regarding how students process such a learning experience. Educators cannot guarantee student attention and progress, but they can create favorable conditions to facilitate them. This book explores many ways to achieve these goals, embracing the principles of a differentiated classroom to make flipping more effective both at home and at school.

THE FLIPPED INSTRUCTIONAL MODEL

A steadily increasing number of classrooms are moving to the Flipped model of instruction, using educational technology to present new material to students at home and utilizing class time to review, reinforce, and practice. In fact, between 2012 and 2014 alone, the number of teachers who reported flipping a lesson grew from 48% to 78% (Yarbro, Arfstrom, McKnight, & McKnight, 2014). During this same time period (2013–2014), financing for education technology companies rose 55% (Singer, 2015), suggesting an interaction between a greater number of resources and more teachers willing to utilize them through flipped instruction. As more and more teachers buy into the idea of flipping their classroom, attention is turning to what happens, pedagogically, *within* the flipped setup. In 2014, the Flipped Learning Network (FLN) established 11 indicators for educators to use to self-assess their flipped learning efforts or progress. These indicators include markers such as:

- F.2—I provide students with different ways to learn content and demonstrate mastery.
- L.1—I give students opportunities to engage in meaningful activities without the teacher being central.
- I.3—I differentiate to make content accessible and relevant to all students.
- P.2—I conduct ongoing formative assessments during class time through observation and by recording data to inform future instruction. (Yarbro et al., 2014, p. 6)

This book is intended to provide guidance in how to implement researched best educational practices—such as those bulleted above—within the Flipped model and through the lens of **differentiated instruction**—an instructional approach that allows teachers to address patterns in student learning by providing different methods of taking in, processing, and demonstrating learning with the goal of

moving every student forward (Tomlinson, 2003; 2014). There is a logical synergy between these two models—the flipped environment provides rich opportunities to cater to diversity because of the flexibility linked to its use.

This book isn't about simply *assuming* differentiation is happening through flipped instruction, but rather *ensuring* it happens.

Within these pages you will find an array of ideas to identify and address the various learning needs of students within a flipped environment. As Hattie (2012) notes: “The key is for teachers to have a clear reason for differentiation, and then relate what they do *differently* to where the student is located on the progression from novice to capable, relative to the learning intentions and success criteria” (p. 98). This book isn't about simply *assuming* differentiation is happening through flipped instruction, but rather *ensuring* it happens through purposeful, carefully planned **at-home** and **at-school** learning experiences, all while checking for student understanding.

One misconception that often accompanies a move to digital learning is the assumption that because students are online, they are learning. This is a dangerous assumption. In *any* environment—face-to-face or digital—we cannot simply hope that students are processing and reflecting on the content; rather, we must guide them to do so. As Hattie and Yates (2014) note: “Within the world of psychology, there is no thing such as passive learning, unless the term implies learning to do nothing, in a manner akin to learned helplessness” (p. 47). An instructional strategy is only as good as the impact it has on student learning.

This book, therefore, is designed to function as a guide to creating Flipped Learning experiences that actively engage *all* students on a more appropriate level—embracing technology as a tool to do so both at home and at school.

PURPOSE AND USE OF THIS BOOK

This book is structured to practically guide teachers in Grades 5 through 12 through the process of differentiating their flipped classrooms. Although the examples we provide are geared more toward middle and high school standards and curricula, the principles, tools, and strategies we include are suitable for students of any age who are tech-savvy in both at-home and at-school settings.

The strategies described herein are designed for educators who operate in a technology-rich environment (e.g., one-to-one initiatives, purposeful use of personal devices, access to school laptop and tablet carts). One concern that often arises is that of student access to devices and Internet at home. In fact, Project Tomorrow cites this issue as one of the primary hindrances for educators wishing to flip their classrooms (Yarbro et al., 2014). While there is no magic bullet to give every student access to the same at-home resources, there are active steps

that teachers and administrators can take. Figure P.1 offers solutions for dealing with these issues so that all students can participate in the strategies outlined in this book.

The structure of the book lends itself to reading as a whole or to selecting the chapters that best fit the needs of individual teachers, coaches, or administrators as well as whole-school faculties or professional learning communities (PLCs). Specifically, the book presents the following tools, strategies, and principles with applications for both at-home and at-school implementation:

Chapter 1 provides an overview of both Flipped Learning and differentiated instruction with the goal of exploring natural points of overlap between the two models.

Chapter 2 details how to establish an effective learning environment—both face-to-face and digitally—as a necessary foundation for flipping and differentiating.

Chapter 3 outlines digital and face-to-face strategies for collecting ongoing formative assessment data in a flipped environment to determine student needs.

Chapter 4 provides guidance and examples on how teachers might use this formative assessment data to design appropriately challenging instruction for differing degrees of student readiness (both at home and at school).

Chapter 5 looks at how teachers can use the Flipped model to motivate students by differentiating for student interests and learning profiles.

Chapter 6 addresses the reality that classroom management takes on an entirely new dynamic with a flipped instructional approach. This chapter provides practical solutions for teachers to better manage the at-home and at-school learning environments.

Chapter 7 provides a concise summary of take-away ideas as well as guidance for how to get started flipping and differentiating instruction.

The **Appendices** contain multiple resources—such as additional strategy examples, a storehouse of technology tools, sample lesson plans, and a student technology survey—to support individual teacher learning, PLC studies, and professional development workshops.

It is our hope that teachers, no matter where they are in their level of experience, will glean strategies and tools that will allow them to facilitate and monitor, rather than to hope and assume, that active learning is taking place for the entire range of students in our charge.

FIGURE P.1: “ACCESS” TROUBLE SPOTS AND POSSIBLE SOLUTIONS

Trouble Spot	Possible Solutions
<p>Students don't have access to devices for watching videos or the Internet at home.</p>	<p>If students don't have computer access, some of the following ideas can help give them view to the at-home content. However, some of the online tools for processing and posting ideas would also need to be changed.</p> <ul style="list-style-type: none"> • Burn videos onto DVDs. Most students, if they don't have computers or the Internet, have access to a DVD player at home and can view videos this way. • Discuss the possibility of students checking out devices from the school media center. • Start an effort throughout the school or community to obtain older smartphones, iPods, tablets, or MP4 players that could be distributed to students to watch at-home content. <p>If students have computers or tablets but Internet access is keeping them from watching the videos:</p> <ul style="list-style-type: none"> • Students can download and save/capture the videos to their devices while at school for viewing that night at home. • Provide students with a USB flash drive that contains the videos recorded. Students can plug these into their computers to access the videos. • Encourage students to visit local libraries or other businesses with free Wi-Fi access (or computer access). Teachers can reach out to their community to determine if any local businesses, shops, or restaurants might be willing to permit some students to use their Internet resources.
<p>Students without Internet and/or computers and need to complete at-home differentiated assignments.</p>	<ul style="list-style-type: none"> • Ask students to keep a handwritten journal and type their responses and upload them to their blogs, discussion threads, and so on during class the next day. • Encourage students to communicate with peers over the phone (landline or other) while watching content. • Allow students to bring in their work on a USB flash drive. During a warm-up activity the following day, students can post their ideas and questions to their blogs, discussion threads, and so on. • Scout out local libraries that have computers for the public to use or local businesses that have free Wi-Fi access and encourage students to utilize those resources. • If there is access to a scanner at school, allow students to scan their handwritten journal and upload it as a file to their blogs or a discussion thread. Inexpensive apps are available to scan documents with your smartphone, and the quality is typically quite good.