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Transformative Education: How Can You Become a Better College Teacher?

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TRANSFORMATIVE EDUCATION

HOW CAN YOU BECOME A BETTER COLLEGE TEACHER?

VERSION 1.0

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I want to thank my wife Sarah for her unending patience and support while I worked for months and years to gather hundreds of random thoughts on teaching and mold them together to create a logical and useful book. I have been married to her for 14 months longer than I have been a teacher. Looking back over those decades, I realize that my wife and my career have formed the two pillars of my life. What a wonderful ride it has been. I am a lucky person.

I also want to thank Megan Davis, administrative coordinator for accounting and finance at the Robins School of Business, for the countless hours of work that she put in to make this project a success.

DEDICATION

This book is dedicated to the memory of

Dr. Paul Clikeman

For decades, Paul Clikeman and I drove to Taco Bell for lunch about once each week. The food was fine. The conversations were amazing. During hundreds of meals, we discussed sports, politics, religion, music, children, and countless other topics, but we mostly talked about teaching our students. Paul was the opposite of me in many ways. He never spoke until he had thought carefully about what he wanted to say. He never acted until he had considered what he hoped to accomplish. He was wise and caring. I have never met another person who thought more deeply about the purpose of education and the effects that it can have on students. He was the epitome of a great teacher. Many of the ideas I describe in this book were first generated at one of those lunches.

I hope you have the wonderful good luck of having a friend like Paul. They are much too rare. The best way to become a better teacher is to find a colleague who has the same serious goals and aspirations as you. Then, as often as possible, sit around a table with a cup of coffee or, perhaps a taco, and just talk. Exchange ideas and suggestions, debate and explore. We had no agenda. We simply shared what was on our minds. During all those years, we never ran out of teaching and learning topics to bat back and forth.

If you gain any ideas about teaching from the writings in this book, a substantial portion of that benefit should be attributed to Paul Clikeman.

DISCLOSURE

Not a single word in this work was created by ChatGPT or any other form of artificial intelligence.

I have only myself to blame.

A MESSAGE TO YOU, THE READER

I want to give this book to you. It is free. I wrote it for that reason. When my children were probably 14 or 15, I occasionally presented them with a book that had been special to me, perhaps *The Autobiography of Malcolm X* or maybe *I, Claudius*. My suggestion was that they read 20 pages and then decide whether to continue. Did they find the author's words and thoughts worth the time they would have to invest if they read further? That decision was up to them.

With this book, the same question is one I would ask you to consider. Read 20 pages. What do you have to lose? You received the book for free. Hopefully, you will be intrigued and continue to read. Take time to consider my ideas about college education. If that happens, then I am delighted to present this book to you without any monetary charge.

No reader will find every suggestion in this book to be of value. However, I hope a few might be useful. For any that catch your attention, think about how you might implement those changes into your class structure. Be bold and be willing to experiment. That seems like a good motto for any teacher.

I hope you will pass this book along to others, especially individuals who are interested in better teaching. Like you, they will incur no cost. Educational ideas should flow freely from teacher to teacher and school to school.

I do ask one favor. (Yes, every good deal has a catch.) If you attempt any of the ideas that are discussed in this book, send me an email (Jhoyle@richmond.edu) and tell me what you did and how well it worked for you and your students. I would love to hear about your teaching experiences, both successes and failures.

I believe that my request creates a fair trade. You receive a free book. I gain information. I can learn what you tried based on your reading and how well the change worked.

Best of luck. Teaching is never easy, but it is the most important job in the world.

Joe Hoyle, Midlothian, VA

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AN OPENING READING

WHAT DO YOU FEEL WHEN YOU HEAR THE WORD "TEACHER?"

Teaching Is Personal. Fair warning: This book will be personal because teaching is such a personal experience. Some books about teaching have a clinical structure like the description of a controlled laboratory experiment involving rats and mazes. Those works can be quite beneficial, but my writings will sound different. For me, improving the educational experience for every student is a personal goal, probably bordering on an obsession. I want to encourage, guide, and assist college teachers in their quest to become better. I never camouflage my mission.

I do not want to overanalyze myself, but I suspect that my desire to improve as a teacher comes, in part, from my regret that I did not have better teachers in college. A few were good. Several were awful. Most were average. None were great. I was frustrated that the bad ones did not try harder. My parents paid a significant amount of their hard-earned money to a major university, but many of my teachers did not seem to care whether I learned one iota. How could they settle for being mediocre at such a vitally important responsibility? At 18, I did not understand their lackadaisical attitude. I do not understand it any better now that I am well past 70.

I simply want every student to have a legitimate opportunity to earn an excellent education. I have a great appreciation for teachers who work hard to help students think, learn, and understand. Our schools can achieve better, more in-depth results if teachers are both willing and able to assist students in maximizing their potential. I am always distressed when I read of educational inefficiencies. "At some of the most prestigious flagship universities, test results indicate the average graduate shows little or no improvement in critical thinking over four years." ("Many Colleges Fail in Teaching How to Think," Douglas Belkin, *Wall Street Journal*, June 6, 2017). Such failure should be unacceptable to every person involved with college education but also to our society as a whole. Such indictments should lead citizens to mass at the college gates with torches and pitchforks demanding better from us.

An Opening Reading. I grew up in a tiny mountain town in North Carolina and attended the local Southern Baptist church. Before every service, the pastor or a member of the congregation would stand before the assembled group and read a few verses, usually from the *Bible*. These words often served as the basis for the comments that were to follow. At other times, the selected reading provided inspiration or helped listeners get into the proper frame of mind to receive the speaker's message.

In this book, I plan to examine the day-to-day activities of teaching. How can you improve the learning process in your classes, not in a year or two, but right now? How can you better educate your students, not a few of them, but 100 percent? Just as importantly, why does it even matter?

Given my background, I want to open this book with a reading. I have selected a few lines from Pat Conroy's novel *The Prince of Tides.* It tells the story of Savannah and Tom Wingo, twins who grew up in a dysfunctional family in the low country near Charleston, South Carolina. The epilogue to this book provides the following interaction. Savannah speaks first and Tom replies.

> She took my hand and squeezed it. "You sold yourself short. You could've been more than a teacher and a coach."
>
> I returned the squeeze and said, "Listen to me, Savannah. There's no word in the language I revere more than *teacher*. None. My heart sings when a kid refers to me as his teacher and it always has. I've honored myself and the entire family of man by becoming one."

Conroy died in 2016 after a prolific career. I doubt he ever wrote other words that were better than these. I am not here to judge, but if Tom's response does not pull your heart into your throat, then reading my book is probably not a good use of your time.

Why are you reading this book? What do you hope to gain? When you read the above conversation in Pat Conroy's novel, is it more than just mere words to you? Is the message personal? I will provide you with scores of ideas and suggestions that I believe can lead to improved education. The goal is simple. I want teacher everywhere to get excited about their careers, about the effect they have on so many college students. I believe that you can become a better teacher and with work eventually a great teacher. My advice is simple: Go for it!

AN OPENING CARTOON

HOW DO YOU KEEP YOUR BATTERIES CHARGED?

A Message from *Peanuts*. I have always loved comic strips and cartoons. I grew up reading *Donald Duck, Mad* magazine, and *Superman* but eventually moved on to more adult sources such as *The New Yorker*. During subsequent decades, I enjoyed the brilliance of *Calvin and Hobbes, Bloom County, The Far Side, Doonesbury,* and many others.

Perhaps not surprisingly, a cartoon has been taped to my office wall for the past few years, printed from a Facebook posting. It is a simple *Peanuts* comic by Charles Schulz. Charlie Brown walks along and says to Schroeder, "I thought the point of life was to be happy, help others and make the world a better place." Schroeder responds, "I guess you're right but we all can't become teachers." I read this cartoon virtually every morning and smile because I feel fortunate to have become a teacher. It reminds me of the great rewards this calling has to offer. The message helps me grow excited about each new day and what lies ahead.

Hang around teachers for a time and you might get the sense that our vocation does not impress us very much. We seem to have an inferiority complex. You may hear self-dismissing comments, "Oh, I'm just a teacher. It is what I do every day," as if this occupation is a particularly mundane way to spend our productive time. Unfortunately, any activity a person does day after day can lose its wonderment. That challenge is one of the toughest parts of the job. In truth, whether today is your first one in front of a class or, like me, the start of your 53rd year, teaching is anything but mundane. It is complex and exciting.

This past semester I worked with 66 students, and in many ways, they represented 66 unique puzzles that I was challenged to address. My work reminds me of the song from *The Sound of Music*, "How Do You Solve a Problem like Maria?" except that I have many Marias every semester. To make the task even more intriguing, the nature of those human puzzles seems to evolve every day depending on the countless problems that students regularly face in their other classes and personal lives.

People occasionally ask me how I could possibly hold the same job for 52 years (so far). For me, one of the keys to successful teaching is to maintain an honest realization of how special the opportunity is. Never let it become trivial. Life offers no guarantees. Some days can be genuinely bad, but the chance to help others (and have fun doing it) presents itself to every teacher every day. We do not fight dragons but being a teacher offers excitement and fulfillment as well as wonder and joy.

Keep Those Batteries Charged. Too many wonderful teachers burn out. They lose their passion for the job. Eventually, the disappointments begin to bother them more than the successes invigorate. That is often the crucial tipping point in their careers. After only a few years, potentially great teachers can gradually settle into mediocrity or leave the profession entirely.

We cannot afford to lose outstanding teachers like you. Take care of yourself. Find support. Never take your enthusiasm for granted. Guard the personal joy of the job like it is a religious icon. Remind yourself each day of why you chose to become a teacher and how wonderful every success feels. If you are in this career for the long haul, find ways to remind yourself daily of its importance. For me, reading a *Peanuts* cartoon helps. I do it every morning when I arrive at my office—two or three times on difficult days. Students often need external motivation to do their best work. Teachers are no different.

Teachers play a role somewhat akin to Johnny Appleseed. He planted seeds but was unlikely to celebrate the outcome fully because the slow passage of years was necessary for those seeds to germinate, grow, and become fruitful trees. He invested time and energy based mainly on faith that the eventual results would prove worthwhile. In much the same way, a teacher works diligently to assist students with the hope that a modicum of improvement in their future lives will result.

Instant gratification is rare in the teaching profession. Students move on to other classes and might never look back. They graduate and head off into careers. You lose track of them. What did your hard work accomplish? This question may have to go unanswered. Without a deep

belief in the benefit you convey, fighting the daily battles that teaching requires can become exhausting. Most victories reside in some vague future time that the teacher might never be able to witness. That is why teachers need to develop a personal support system.

I wrote this book to help provide a bit of that support. I offer ideas and suggestions throughout this book because I believe in the importance of improvement. Continual growth as a teacher will help you feel better about the career you have chosen and the difference that you can make in the lives of your students even if you never have the chance to enjoy those results.

Do you have a favorite technique for boosting your morale? When teaching seems to present you with nothing but frustrations, do you have tactics for renewing your enthusiasm? Here is one suggestion. When the job gets especially tough, watch the movie "Stand and Deliver." It follows the career of Jaime Escalante who taught mathematics in an East Los Angeles high school from 1974 until 1991. In the movie, his students face a long litany of challenges but, because of Escalante's stubborn refusal to let them fail, the class members eventually achieve phenomenal success on the AP Calculus examination. I am not certain how close to the absolute truth the movie is but, if you are a teacher, it can help rekindle your passion for the job. Whether it is a comic strip, a movie, this book, or another type of support, we all need a periodic dose of excitement about the role we play within the teaching profession.

AN EMAIL TO MY STUDENTS—INTRODUCING THE AUTHOR

WHO IS THIS PERSON? (PART ONE)

Books generally provide some type of author introduction. I imagine this inclusion is designed to convince potential readers that the writer has sufficient knowledge of the chosen topic.

What do you want to know? Here is an email (slightly edited) that I sent a few hours ago to all the students who are registered for my next set of classes. The note is how I introduced myself to the people who will need to know the real me relatively soon. I hope it works for you as well.

**

To: My Students for the Coming Semester

From: JH

During the weeks and months leading up to our first class, I will be sending you several emails to introduce our course so that you will know (a) what you should expect from me and (b) what I will expect from you. I want everyone to have a clear understanding of how the course functions starting on Day One. Today, though, I plan to use this email to introduce myself. We will be working together for more than three months. I want you to know something about me.

Based on my experience, most college students are not terribly interested in a personal profile of their teachers. I do not recall, when I was your age, that I thought much about the marital status of my professors. I was not especially interested in how many children they had, the hobbies they pursued, or the books they read. I doubt that I cared about the research they produced or the type of car they drove. I was not curious about their vacations or awards.

Nevertheless, if any of that interests you, let me know and I will provide a few details.

Looking back at my college days, I do remember being interested in how my professors viewed teaching. From my perspective, they all appeared to approach their jobs with unique attitudes. Some were comedians who kept the students amused. Some were deadly serious. Several wanted to be friends with us, whereas others established a strict professional distance between themselves and the members of the class. A few reminded me of sports coaches who pushed their students (often unmercifully) toward some type of monumental victory. One or two seemed to believe we were brilliant. Others treated us like a bunch of ignoramuses. At the age of 18 or so, the information that I sought was relatively simple. Who are these people as teachers, and do they plan to inspire me or bore me to death?

I enjoy reading. A few weeks ago, while on vacation, I read a popular murder mystery to pass the time on a long bus ride. One minor character recounted a brief story that proved to be unrelated to solving the crime. However, it caught my attention. Perhaps I was just in a receptive mood, but those few pages have come back to me almost daily since my return home.

In the novel, an older person mentions that in his youth he travelled to India to join the community of a spiritual guide. The new apprentice was required to work for ten years before being allowed to even speak to the group's guru about the purpose of life. When those years finally passed, he asked the leader for guidance and received a two-word mantra: help people. Ten years of servitude in exchange for two words of wisdom. I am not sure that was a good tradeoff, but the advice was meaningful to me. I continue to think about it.

Before we get started with this class, I want you to know that my only personal objective for the coming semester is to help you. From the time you register for the class until you walk out of the final examination, that is the one thing I will be seeking.

When I give you an assignment, I am trying to help you.

When I call on you in class and expect a reasonable answer, I am trying to help you.

When I set rules, I am trying to help you.

When I push you to think more deeply about a problem, I am trying to help you.

When I sit in my office and chat with you, I am trying to help you.

When I mark one of your test questions wrong and reduce your grade, I am trying to help you.

When I require you to arrive at class on time, I am trying to help you.

When I make you put your phone away, I am trying to help you.

When I send you countless emails, I am trying to help you.

When I expect you to be prepared for every class, I am trying to help you.

There is not a single action that I will take this semester that has any purpose other than that I am trying to help you. None. Nada.

At times, you might feel that I am harsh, demanding, or obstinate and you will probably be correct. Many thousands of students before you have come to similar conclusions. However, the only reason for any action that I take is that I honestly believe that it will help you. Otherwise, why do it?

I hope this personal introduction is beneficial. Perhaps it will provide you with a bit of enlightenment. The course is challenging. The work, at times, is difficult. You will encounter days (maybe many days) when you might question why I am asking so much from you. The answer is always the same. I am trying to help you.

MY INTRODUCTION FOR THIS BOOK

WHY SHOULD YOU CREATE YOUR OWN RUBE GOLDBERG LEARNING PROCESS?

You Must Ask the Right Questions. I often begin classes with an assumption to stimulate the thinking of my students. So, assume a university is hiring a new member for its faculty. Before school officials extend an offer, they require each candidate to complete a short test designed to assess the individual's potential for great teaching. This test provides three scenarios that all end with a "What would you do now?" query. The situations are nothing out of the ordinary. Professors face challenges like these on a regular basis.

> *Question One: Professor A enters the classroom on the first day of the semester. He finds several sorority members clustered together in one row. A group of athletes sits isolated in a corner. The international students occupy their own particular space. The remaining students stare at their phones with thumbs flying to avoid making eye contact with the other humans in the room. Everyone looks up casually as Professor A approaches the lectern. He is excited about the class. He wants every student to learn. More importantly, he hopes they will all come to love the subject matter as much as he does. In contrast, nothing would please many of the students more than for Professor A to call off class and spare them the tedium they anticipate. They have no faith that learning this material will lead to any positive effect on their lives. What might Professor A do now to improve the odds of a successful first class?*

<u>Question Two:</u> Professor B walks into her classroom halfway through the semester. The next test is not for 3 weeks. Several students are absent. A few others do not even pretend to pay attention. They might be hung over. Students who did poorly on the first test already seem resigned to a low or failing grade. They register a "why try" attitude. Professor B attempts to enliven the class by asking a question, but the same 10 percent who always volunteer to answer are the only students who raise their hands. What might Professor B do now to improve the odds of a successful class?

<u>Question Three:</u> Professor C creates test questions that do not stress memorization but are designed to measure what each student understands. She believes this approach is best suited for the development of critical thinking skills. Student Z has maintained a high grade point average in high school and college. He never prepares in advance of class but writes extensive notes during the lecture that he later outlines on flash cards that he memorizes. After making low grades on the first two tests of the semester, Student Z comes to Professor C for help. He is visibly upset because he has never received a grade lower than a 90 on any previous college test. "I work hard and know all the material extremely well. I never miss class and always pay attention. Nevertheless, on both tests to date, when I read the questions, my mind seemed to go blank. I did not know how to even get started. Your questions did not match my knowledge of the material. How can I show you on the third test all that I have learned?" What advice might Professor C provide Student Z to improve his odds of success on the third test?

Author and cartoonist James Thurber asserted, "It is better to know some of the questions than all of the answers." The quip is clever, especially relevant to educators who want to help students improve their thinking skills. In teaching, I believe the real key is to know the "right" questions to ask. For me, the above three questions are simply not the right ones to consider if great teaching is truly the university's goal.

I suspect most experienced professors can construct dozens of legitimate answers for each of these questions. Developing ad hoc solutions to student problems is an essential part of teaching. Issues like these arise virtually every day. Nevertheless, <u>genuine educational success rarely results from cleaning up after students have lost their way</u>. At that point, the teacher is merely trying to create damage control. Any action can be no more than a Band-Aid to reduce the detrimental effect of earlier flaws in the course structure. To maximize learning, teachers must anticipate problems and, where possible, resolve them (or, at least, minimize them) in advance.

Over the years, I have often pictured an excellent college class structure as an elaborate Rube Goldberg machine that performs a final task almost like magic but only if each of the myriad steps along the way work together in perfect harmony. If you do not know what a Rube Goldberg machine is, you can find many examples on the internet. Here is one good possibility:

https://www.youtube.com/watch?v=RBOqfLVCDv8)

When functioning properly, the individual components of a college course mesh to form an effective process that leads to dynamic learning. Students walk in on the first day of the semester ignorant and skeptical. They leave on the last day excited, thoughtful, and knowledgeable. This is educational transformation at its best. When a course fails to operate perfectly, the teacher must study the entire design to identify needed modifications. If a problem occurs in class on Monday, the origin might have been three days earlier, three weeks earlier, or three months earlier. Problems in education rarely occur as spontaneous combustion.

Creating an Efficient Learning Process. This book explains how you can create a comprehensive education system designed to help your students achieve success. At times, I write about my own experiences, but I have no interest in convincing you to teach like me. I want you to teach like an ever-improving version of you.

The purpose of this book is to show you how to develop your own unique Rube Goldberg Learning Process, one that will enable you to become a better teacher each year. I will describe the components that serve as its skeletal structure. I will talk about the heart that keeps the energy flowing as well as the skin and muscles that hold it all together. Finally, I will introduce you to the ears, nose, and tail that make it innovative and unique. When those pieces work together, educational magic can be created in any classroom.

Regardless of its various components, every Rube Goldberg Learning Process should be established based on two essential principles.

- First, students must have a reason for wanting to learn. Without that, no one is willing to do the work necessary to attain true understanding. The intended benefit must be apparent, understood clearly by both teacher and student.
- Second, careful guidance is of paramount importance. Much like a local resident leading a tour group through a thick jungle, the teacher knows where the dangers lurk and makes certain that each student can navigate the route successfully.

Begin now to create a Rube Goldberg Learning Process that will work for you. Within that system, provide your students with a reason to learn and direct them methodically toward success. The results will astonish you.

With that introduction, what question should the university administrators at the beginning of this section have asked potential new teachers? What is the right question? I would nominate the following as a possible basis for assessing a person's ability to become a great teacher. It asks for a comprehensive learning process rather than random responses to class problems.

> *Question: A university hires Professor D to teach a class that begins on September 1 and ends on December 1. The school provides him with a list of enrolled students on June 1. What separate steps should Professor D take during the subsequent six months to maximize the learning that each of those students will attain by December?*

After 52 years as a college teacher, I feel this question is the appropriate one to initiate our consideration of efficient education. Answer it and you begin to create the outline for your own Rube Goldberg Learning Process. However, no single paragraph can possibly describe all the necessary steps. Teaching is too complex for a summary or a brief description. Nothing short of an entire book is adequate. That, of course, is the purpose of the following pages. I plan to introduce my vision of teaching and learning so that you can begin to construct an effectively functioning learning system. Along the way, I plan to examine dozens of specific questions (such as the ones below) that I believe will help you think more deeply about what an effective college education can accomplish.

- What is my 5 percent solution for improved teaching?
- What can we learn from Bruce Springsteen's attitude toward failure?
- What is the sermon of the Three E's?
- What is the Derek Jeter Rule?
- What was the *Doonesbury* cartoon's critique of college education?
- Why should colleges go beyond a conveyance of information model?
- What is the problem with Swiss cheese knowledge?
- What can we learn from teaching Fido to roll over?
- What is the difference between a football coach teacher and a scout leader teacher?
- What can a teacher learn from Mark Rothko's obsession with a Henri Matisse painting?
- What do you want engraved on your tombstone?
- What are fly-on-the-wall goals?
- Why compare *Anna Karenina* to *Madame Bovary*?
- What are the seven solutions to the problems our world faces today?
- What did Nelson Mandela say about education?
- How did taking tai chi classes and photography classes make me a better teacher?

The task ahead is clear. By considering questions such as these, you will start the work of creating a personalized Rube Goldberg Learning Process to (a) help students understand the importance and excitement of learning and (b) provide each of those students with the guidance necessary to ensure their learning can be successful. Ultimately, I want only one thing: for you to be a better teacher next year than you are at the current time. This is both a worthy and an achievable goal.

Assume that you receive the names of your new students for the fall semester on the first day of June. You are going to write an email to help them anticipate the experience to come. You want the students to understand and appreciate the class they are about to take and the material they will learn. What suggestions and information can you send that will help them get ready for your class and the educational system you use? What advice can you convey that will convince them that the course material is worth learning? How do you pique their curiosity? How does this email provide the beginning of your own personal Rube Goldberg Learning Process?

LESSON ONE

GETTING STARTED

WHAT ARE THE KEYS NECESSARY FOR BECOMING A GREAT TEACHER?

If your dreams do not scare you,

they are not big enough.

Ellen Johnson Sirleaf

The real purpose of books

is to trap the mind into doing its own thinking.

Christopher Morley

> *Question.* *Professor E recently completed his first year as a college professor. He has carefully studied the results of his student evaluations. His teaching scores are slightly above the school average, not bad for a person's initial effort in the classroom. Nevertheless, he wants to do better. He visits Professor F who has taught for more than 30 years. Her colleagues believe she is one of the top teachers at the university. Professor E describes his approach to teaching and asks for advice. After a pause, Professor F responds, "Everyone must discover his or her own unique path to teaching excellence. I can give you two general keys to success. I think they are essential if you are going to develop into the great teacher you are capable of becoming." What guidance do you think Professor F will provide Professor E?*

Epigraphs. Books frequently begin with one or more epigraphs selected by the author to establish a desired theme. Shmoop.com provides a delightful explanation for this method of introducing a written work (retrieved on May 29, 2023).

> Epigraphs are like little appetizers to the great main dish of a story. They illuminate important aspects of the story, and they get us headed in the right direction.

Well-chosen epigraphs signal, or at least hint at, the author's intentions. If I had paid closer attention to the opening quotation for *The Mill on the Floss*, the ending created by George Eliot might have been less upsetting to me. With a mere seven words taken from the Old Testament's second book of *Samuel*, Eliot hints at ominous things to come in this story of a brother and sister.

In their death they were not divided.

Mario Puzo inserts an even more blatant message at the start of *The Godfather*. The epic tale of the Corleone family begins with an admonition from Honoré de Balzac:

Behind every great fortune there is a crime.

Epigraphs are appealing. They are insightful thoughts, often borrowed from unusual sources, to "illuminate important aspects of the story." Even before the first paragraph, the reader receives clues about the author's vision of the entire work. These tiny first steps into a book can be mysterious, challenging, enticing, and often seem to shout, "You've been warned!"

Inspirational quotations about teaching are easy to find. Clever comments are available by the hundreds, probably by the thousands. They provide encouraging advice for all of us working to navigate the maze of this complicated profession. A resourceful author could construct a comprehensive guidebook on education simply by transcribing the multitude of witty and perceptive quotations found on the internet. From Jim Henson to Galileo, from Winston Churchill to Aristotle, almost every person of note has tossed off at least one clever bon mot on teaching and learning. Such a published collection might well become a popular read.

After considerable deliberation, I chose the two epigraphs on the previous page to open this discussion. One is from Ellen Johnson Sirleaf. The other comes from Christopher Morley. Interestingly, neither quote mentions teaching. Instead, they place the emphasis exactly where I feel it should be: on *ambition* and *thinking*. The interaction of these two keys is essential for human progress in virtually any type of endeavor. More simply stated, I believe people need daring goals to inspire the critical thinking necessary for advancement. Ambition and thinking form a symbiotic relationship. Without one or the other, we tend to stay firmly entrenched in the middle of the pack. Considering the importance of education, I want more than that and trust you do as well.

Key One—Ambition. As mentioned previously, I recently concluded my 52nd year as a college professor. I have weathered thousands of class meetings. Some days were fabulous. The students and I worked together like a well-oiled clock. At the end of the session, we shared a communal feeling of palpable excitement at the wonder of what we had accomplished. When the stars align, teaching and learning create a thrill beyond description. No one denies that education changes lives. The number of students affected depends solely on the size of the audience. (Who needs illegal drugs for stimulation when our profession allows us to touch the lives of so many human beings?)

Author's Note: The term "critical thinking" is widely used in discussing the goals of higher education. An internet search will uncover dozens of often complicated descriptions. I prefer the simplicity of the definition found at *TheFreeDictionary.com* (retrieved July 15, 2023): "Critical thinking is the analysis of facts to form a judgment." In this book, when I mention critical thinking, I am referring to a person's ability to take what is known and understood and use that information to arrive at reasonable solutions for new problems and other challenges that go beyond the person's initial knowledge and understanding. For example, in my classes, I frequently tell the students, "Here is a problem that we have not yet addressed. Take what you've learned so far in this class and figure out a reasonable response. I'm not interested in a correct answer. I want something you can justify as reasonable. Early in the course, I will provide each new problem. Later, I want you to take responsibility for identifying the specific problems that should be addressed. Our goal is to reach a point where you no longer need me at all. When that happens, we will both know that you are able to think for yourself."

Notice that I am not seeking perfection but merely a response that can be reasonably justified whether numeric or verbal, mechanical or theoretical, scientific or spiritual. For me, the distance between what students know and what they can figure out on their own is a measure of how well their critical thinking skills have progressed.

Unfortunately, other days in my career have been horrible. Some classes start poorly and then go straight downhill. At those times, I could not explain snow to a polar bear. Coming home one afternoon after a particularly frustrating class, I marched into the woods behind my home and beat an innocent tree limb into splinters against the side of a large hickory tree. Even under the best of circumstances, teaching can be tremendously challenging. No one achieves a perfect score. Nevertheless, in 52 years I have never once traveled to campus when I did not want to be the best teacher in my building, at my school, in my city, in the world. Set the bar extremely high. As William Faulkner advised, "Always dream and shoot higher than you know you can do. Don't bother just to be better than your contemporaries or predecessors. Try to be better than yourself." This is excellent advice for any teacher.

Ambition is important because the goal is important. If the human race is going to solve the vast array of problems facing our planet, better education is the secret—not "a" secret but "the" secret. Consider how different our world today might be if twice as many people had a legitimate opportunity to earn a quality education. Achieve that objective and solutions for a vast array of "impossible" dilemmas suddenly become possible. Every college teacher should strive to become more efficient, more dynamic, more inspiring, and more humane so that we can touch more lives more deeply.

Because structure is helpful in complex discussions, I will examine our need for educational improvement within a framework that I have introduced as a Rube Goldberg Learning Process.

In my mind, this term represents a comprehensive system designed by a teacher to maximize every student's learning. Without an effective method of organization, teaching innovations are limited to relatively random changes.

However, our ambitions cannot be focused solely on ourselves. We must also entice tens of thousands of bright people to become those future teachers who will dedicate their time and talents to the opening of student minds to knowledge, opinion, art, politics, literature, economics, and the like. Our world looks to us for more and better education. Shortcuts and magic pills do not exist. The challenges are daunting, but success is possible if that is truly what we want. Teachers need to become more ambitious.

Key Two—Thinking. I want this book to be straightforward. I am not writing a "who done it" where enlightenment is delayed until the final page when the perpetrator is unmasked. My goal is clear. I want us to think about teaching but to do so in two fundamental ways.

- First, I hope to encourage a deep examination of the intricacies of modern education. When teaching works well and when it fails miserably, what is really happening? Results in a classroom never occur by accident. The act of learning, like a game of chess, is composed of a multitude of interconnected factors. The more one understands about the practical aspects of education, the more easily improvement is achieved. Think carefully about your students and their education. Improved versions of your Rube Goldberg Learning Process will gradually begin to emerge from the mental ethos.
- Second, I want to stimulate classroom experimentation. A well-known quote attributed to Albert Einstein certainly applies to teaching, "The definition of insanity is doing the same thing over and over and expecting different results." Any quest for improvement requires us to be brave enough to try new tactics. That is an underlying theme of this book. No limitations exist on how great a teacher can become, but advancement starts with having the courage to experiment. Quit procrastinating. Start now. Ask yourself one simple question: What is a different approach I can try during my next class session that might improve student outcomes?

In connection with teaching, where should our ambition and thinking lead us? For me, they bring us to the 5 percent solution.

The 5 Percent Solution. Occasionally, as time allows, I travel to conferences or other universities to participate in teaching programs. In those sessions, one of my favorite suggestions is "the 5 percent solution" because teachers who are seeking better classroom results often appear unsure how to begin their quest. No one becomes significantly better overnight. Greatness is accomplished one tiny step at a time. Unrealistic enthusiasm can morph into discouragement if positive results are slow to materialize. Dramatic improvement takes time and effort. Consequently, I urge each teacher in the audience to set a goal of becoming 5 percent better during the subsequent year. That level of aspiration is reasonable and attainable.

As you consider the various ideas described in this book, here is my promise. If you experiment and achieve 5 percent improvement during the coming year and then another 5 percent each succeeding year, you will be amazed by how quickly you become the best teacher in your building. Colleagues will start visiting your office to seek advice about their classes and students. Your ambition and your thinking will make this happen by pushing you into experimentation. "Innovative" will become the descriptor colleagues use to describe your teaching style.

I must insert one caveat here. The desire to improve as a teacher must be real. A casual fantasy provides no benefit. Saying, "I want to do better" means absolutely nothing. During the pandemic, I read Bruce Springsteen's autobiography *Born to Run*. Books that describe a person's journey to success fascinate me. How many teenagers yearn desperately to become rock and roll legends? How did Springsteen manage to become successful when so many fail? What secret did he discover?

For us in the audience, outstanding performances in virtually any field seem to spring to life with little thought or effort. We tend to discount the months and years of practice that led to the apex. "They must have gotten lucky along the way," or "The members of that group were born with a world of talent." Such remarks fail to recognize the barriers that stand in the way of any daring dream. To achieve lofty goals, people must tap into an inner drive that pushes them forward regardless of the challenges they encounter. Never underestimate the need for sacrifice and self-discipline. Springsteen's ambition to become a great musician permeates every page of his autobiography.

Near the beginning of *Born to Run,* Springsteen tells a story that has fascinated me since the moment I read it. During his teen-age years, he became obsessed with music and eventually helped form a series of local bands. At one point, his group at the time drove from New Jersey to California in search of work so they could hone their craft. After arriving on the west coast, they auditioned for an important job. Springsteen's band played well but lost out to another group. His comment about the rejection is classic.

"They were better than us and that didn't sit well with me."

He did not make excuses.

He did not blame the person who made the decision.

He did not ask for a second chance.

He did not bemoan a lack of talent.

He did not become frustrated and quit trying.

First, he understood why the other group was chosen ("they were better than us"). Second, this knowledge motivated him to do better ("that didn't sit well with me"). The rest is history. How often do we have that same attitude about our teaching? Springsteen's one-sentence response could change everything for any of us.

Quit Procrastinating—What Can You Change? Whether you are the best teacher in the world or the worst, improvement is always possible. Live that assertion every day. Whether you have taught for 52 days or 52 years, analyzing the individual components of your Rube Goldberg Learning Process and thinking about possible innovations can bring exciting results. Although I enjoy interesting quotes, I only have one taped to the wall over my desk. The placement is strategic. I want to be reminded of those words several times each day. Attributed to legendary golfer Arnold Palmer, the message reminds me that life runs best when a person has the gumption to keep pushing forward into unexplored territory.

The road to success is always under construction.

Get started. Think about your teaching and the possible experiments that will help you reach 5 percent improvement during the next year. Brainstorm. Consider new tactics, assignments, and techniques that might work well with your students. Talk with colleagues. Shadow the teachers who seem to know what they are doing. Open your mind to innovation. Do this and the number of viable adjustments worth trying will start to expand exponentially.

It seems simple. Ambition and thinking lead to new ideas and then to new strategies and finally to new actions. Although these steps are straightforward, they must culminate in actual changes, or nothing will ever improve. As my high school history teacher warned our class repeatedly in 1964, "The road to hell is paved with good intentions." Too many potential innovations end up stuck in the planning stage. Procrastination looms as everyone's biggest obstacle on the road to success. How do you conquer it? Ambition is the essential driving force when undertaking any serious endeavor. If you do not feel a burning desire to be a better teacher, nothing I propose will make any difference. Your innovations will get bogged down along the way. If your deeply held motto is "good enough is good enough," reading this book is a true waste of time.

Experiment, Evaluate, and Evolve. Teachers are human. Most are risk averse. Any course modification—whether small or radical—is risky. Every teacher has experienced the discomfort and frustration of a class experiment gone badly awry. "Play it safe" seems to be the theme of many educators (as well as students, administrators, and most other people). Mediocrity is always a welcoming path. Before reading further, consider three interconnected questions:

What are your true aspirations as a teacher?

How hard are you willing to work to become a better teacher?

How much risk can you tolerate?

Educators who have attended my teaching presentations have likely heard me preach my "Three E" sermon: Experiment, Evaluate, and Evolve. Everything I know about improved teaching resides in those E words. They are easy to scribble in a notebook or type on a computer screen. You can even chant them hypnotically like a mantra. In practice, these three E words require time, consideration, and perseverance. Obstacles abound. Administrators may fail to be supportive. Students are not necessarily willing to comply with joy and good cheer to every creative classroom innovation. Actual results are not always positive. Countless experiments may be required to discover the improvements you desire. The battle is never easy.

Many teachers try one or two innovations, and, if rousing success does not appear, they grow fearful or discouraged and never again stray from the ordained path. We are humans. Failure can be disheartening. Years ago, in hopes of soothing this anxiety, I created the Derek Jeter Rule for myself. From 1995 until 2014, Jeter was one of the great players in major league baseball. His prowess in the sport is truly legendary. Nevertheless, even in his best years, he rarely managed more than three hits out of every ten times at bat. Statistically, he had roughly a 70 percent chance of failure each time he walked to the plate. Sounds terrible but, in baseball, that is greatness. If Jeter had let so much failure affect his performance, his fabulous career would not have occurred. Never become paralyzed by the possibility of failure. The motivational speaker Denis Waitley is known to say, "Failure is the fertilizer for success." So, my Derek Jeter Rule states, "If three out of every ten teaching experiments prove to be successful, you will be on the road to greatness. Learn from the failures and move on."

When you are ready to start the journey to better teaching, select one small element of your Rube Goldberg Learning Process and consider how it might be done differently. Choose a factor you find interesting or that needs improvement. (Later in Lesson Three, I will describe the "Education Diamond," a concept that I created for this very purpose.)

As an example, focus on how you motivate students to prepare prior to class, how you go about testing student knowledge to award fair grades, or how you communicate with your students. Next, identify the steps in your current strategy. What do you do? How well is the process working? What bothers you? Analyze what you do and why from every angle until you decide whether to implement a different tactic. As the unique and talented musician Frank Zappa observed, "Without deviation from the norm, progress is not possible."

Expand your imagination, take the leap and try something new, and assess the results carefully. Based on the outcome, modify your teaching or modify the tactic and try again. This cycle can repeat forever. Continuous improvement is a popular concept in the world of business. It works equally well in teaching.

An equation might best reflect my methodology. For me, this visual representation portrays the essence of the ongoing search for better teaching.

(Ambition + Thinking) → (Experimentation, Evaluation, and Evolution) →

5 Percent Annual Improvement in Your Teaching

Follow this approach for a month, a semester, a year, forever. I believe you will experience better classroom results, not just one time but every year, every semester, and possibly even every day. With continuous improvement, no ceiling can limit how great your teaching will become. This potential for ongoing, positive educational results is what I am hinting at in the epigraphs at the beginning of this chapter.

When the learning process goes well, it feels like magic. The mind of each student begins to open to a world of wonder. A teacher can almost see lives changing as students analyze and debate increasingly complicated ideas and opinions. Challenge yourself to set goals that will stretch both you and your students beyond what seems possible. I offer no secret words like "alakazam" that easily create such magic. Instead, decide how great you want to be as a teacher and then focus on the thinking that bubbles up in response to the suggestions in this book.

As I have stated, the goal is not to convince you to follow my style or become my clone. The goal is to help you become a better version of you in the classroom. That requires more than sage advice. Only your ambition and thinking will generate the improvements you seek. I can encourage, and I can provide ideas, but I cannot change you. You must do that.

I will be redundant here but some thoughts bear repeating:

If your dreams do not scare you, they are not big enough.

The real purpose of books is to trap the mind into doing its own thinking.

In a few sentences, put your ambitions as a teacher into words. How good do you want to be? Be honest with yourself. How badly do you want to improve and what have you done recently to make that goal a reality? What thinking did you do during this past year that led to better teaching. What experiments did you devise to challenge your students to learn more and think critically? Going forward, maintain a list of every idea you try out in class and describe what worked and what did not work. Consider the implications very carefully.

LESSON TWO

PAUL SIMON AND GARRY TRUDEAU PROVIDE THEIR OPINIONS

HOW DO WE FIX COLLEGE EDUCATION TODAY?

> *Question.* *Professor G is grading an examination. On the first question, he asked the students to identify six fundamental rules covered in class. In reading the responses, he becomes concerned because several students who seemed uninterested during the class discussions listed every rule correctly. Other students who participated actively each day failed to remember one or more of the requested items. Based on his observations, the resulting grades did not mirror what Professor G believes his students learned and understood. He comes to you for advice. What would you tell him?*

The Results Are Not Encouraging. Everyone acknowledges the importance of teaching and learning. People praise the value of education in much the same way as they talk about mom and apple pie. Why, then, are we not doing better? Like a dark cloud, the assumption hangs over society today that the education battle is being lost. From pre-K to college, schools have made positive strides in many areas, but not in all areas. The results are, as they say, mixed.

In August 2022, the Gallup polling organization sought answers to the question, "Overall, how satisfied are you with the quality of education students receive in kindergarten through grade 12 in the U.S. today—would you say you are completely satisfied, somewhat satisfied, somewhat dissatisfied, or completely dissatisfied?" Of those individuals surveyed, 55 percent indicated they were somewhat or completely dissatisfied, a percentage that had not changed appreciably during the previous 20 years. (news.gallup.com/poll/1612/education.aspx) The public's perception of modern education is hardly a sign of roaring confidence.

College education is not immune to this dissatisfaction. In their landmark work, *Academically adrift: Limited Learning on College Campuses* (published in 2011 by the University of Chicago Press), Richard Arum and Josipa Roksa open with a discussion of thoughts written by Derek Bok (from *Our Underachieving Colleges: A Candid Look at How Much Students Learn and Why They Should Learn More*, published in 2008 by the Princeton University Press).

> "Colleges and universities, for all the benefits they bring, accomplish far less for their students than they should," the former president of Harvard University Derek Bok recently lamented. Many students graduate college today, according to Bok, "without being able to write well enough to satisfy their employers . . . reason clearly or perform competently in analyzing complex, nontechnical problems." While concern over undergraduate learning in this country has longstanding roots, in recent years increased

attention has been focused on this issue not only by former Ivy League presidents, but also by policy makers, practitioners, and the public.

Coming from a renowned authority like Derek Bok, the indictment that, "Colleges and universities, for all the benefits they bring, accomplish far less for their students than they should," is nothing short of devastating. Without better results, colleges can never hope to fill their proper role in solving the world's myriad problems. Such harsh accusations raise an essential question. What educational goals are colleges and universities supposed to accomplish? Both professors and administrators must address that question honestly and openly if our schools hope to reach their potential. In the U.S., thousands of colleges and universities enroll millions of students at a cost of billions of dollars. What is a reasonable return for all the money and other invested resources? What is the purpose of a college education?

If you believe the pessimism about the quality of education is overblown, try an experiment. At any gathering of college teachers (or anyone else for that matter), write the first two lines of Paul Simon's popular song *Kodachrome* on the nearest board and then watch the audience's response. Although Simon singles out high school, he is clearly mocking education in general.

"When I think back on all the crap I learned in high school
It's a wonder I can think at all."

These lyrics provide a stinging condemnation of the U.S. educational system. Released in 1973, 50 years have passed since *Kodachrome* peaked at number two on the "Billboard Hot 100" chart. Surely, the intervening decades have provided sufficient time to implement improvements that could take hold and blossom. Yet, I suspect most college graduates still smile at these lyrics with a knowing nod of the head. What is the implication? People seem to believe they learned plenty of "stuff" in school but are uncertain that they developed the ability to reason at the level that is necessary for the complex issues we face in the 21st century. If that is even partially true, the broad dissatisfaction with education that Gallup finds each year is understandable. The frustration exemplified by Derek Bok's comment makes sense. A broad swarth of our population appears to believe that learning in our schools and thinking are not directly connected. That cynicism does not bode well for our battles against the vast problems faced by the world today.

Why Go to College? A second, more recent, example from popular culture reflects similar reservations about the practical benefits of a college education. The June 26, 2011, edition of the comic strip *Doonesbury*, penned by Garry Trudeau, shows two college students wandering through the school cafeteria. They find an open table and begin to "study." One asks, "When is Guy Fawkes Day?" The other glances at a computer screen and provides the answer in 0.08 seconds. The first student then asks, what is "the seventh most abundant element in the earth's crust"? The correct response takes 0.14 seconds to retrieve. For the third question, the student must identify "the three main branches of moral philosophy." Discovering this answer takes a mere 0.09 seconds.

The instant availability of a seemingly infinite amount of free information leads these two students to consider a modern-day riddle, one that educators should debate on a regular basis.

Student One: "Which raises profound questions about what it means to be a student!"

Student Two: "Yeah, like why go to college?"

That question is one that more people should ponder. A college education normally requires a significant investment of several years of a person's life at a total cost that can exceed $300,000. With the efficiency of internet search engines not to mention the availability of artificial intelligence, the pure accumulation of knowledge by a student has lost much of its relevance. Colleges today need to articulate clear objectives that justify such extreme costs or risk becoming obsolete. Doonesbury's two students are not alone in raising questions about the purpose of the college experience. In discussing a six-year annual drop in total enrollments, an op-ed piece in the *Wall Street Journal* lays out serious concerns that are growing in our society. "Rising costs and declining benefits mean the return on a college investment is starting to fall for many Americans" ("The Diminishing Returns of a College Degree," June 5, 2017, by Richard Vedder and Justin Strehle).

Why go to college? In the world of *Doonesbury* as envisioned by Garry Trudeau, these students proceed to provide their own rationale. Student One's final answer should make us all cringe. "Well, to party. That hasn't changed."

This cavalier response cannot shock many college teachers. We have all dealt with students who seem to believe that partying is the primary justification for the college experience. Classes, tests, books, assignments, papers and the like are nothing more than inconvenient annoyances. I have heard the speculation that the epidemic of alcohol and drug abuse found on many campuses today is partially a result of students finding their classes to be boring and useless. That needs to stop. Colleges must eradicate the *Animal House* mentality.

Author's Note: I do not want to beat this point to death, but I must mention the classic *Calvin and Hobbes* cartoon of January 27, 1994. Calvin is taking a test and is asked, "When did the Pilgrims land at Plymouth Rock?" He answers the question and then adds this observation, "As you can see, I've memorized this utterly useless fact long enough to pass a test question. I now intend to forget it forever. You've taught me nothing except how to cynically manipulate the system. Congratulations." If it were not so funny, it would be heartbreaking.

Conveyance of Information Model. I grew up in the 1950s and 1960s. At that time, the primary source of information for many people was a set of encyclopedias known as *The World Book*. With perseverance, a student could use them to discover that Guy Fawkes Day is November 5 and that the seventh most abundant element in the earth's crust is magnesium. Without

encyclopedias, determining those answers might literally take days or even prove to be impossible. In a *Time* magazine interview, Bill Gates brags, "I read the whole set of *World Book* encyclopedias when I was a kid." Most of us just looked up answers as needed.

Prior to modern technology, one important (possibly the primary) reason for a college education was the conveyance of vast amounts of information from the brain of a professor to the brains (or at least the notebooks) of the students. An individual with expert knowledge stood in front of a packed room two or three times each week and mostly rattled on in 50-90 minute increments. Occasional questions and answers might break the monotony. Students copied down virtually every word hoping for a modicum of enlightenment. Whether understood or not, lessons were transcribed faithfully. When my students try this strategy today, I refer to it as "learning through stenography."

Back in the dorm, students memorized as much of this information as possible in hopes of receiving an acceptable grade. They frequently relied on overnight cram sessions before regurgitating everything they could recall onto periodic examinations, a process commonly known as "bulimic learning." Yes, that was college education many decades ago, but it also resembles aspects of college education today. Little in our gigantic world has evolved so slowly. As Paul Simon's song bluntly asserts, "It's a wonder I can think at all."

In my opinion, a fundamental problem that colleges have skirted for decades is the need to switch from this conveyance of information model to a critical thinking model more appropriate for the 21st century. The objective of a college education can no longer be the conveyance of information. The cost is too high. Students walk away with too much of their potential left untapped. Bloom's Taxonomy was developed primarily in the 1940s, 1950s, and 1960s with memorization resting at the bottom. The pathway is there but progress has been slow.

Paul Simon and Garry Trudeau are hardly the first to shine a light on the problem. Although this style of teaching has formed the basis for college education for hundreds of years, even Samuel Johnson recognized an inherent weakness. "Lectures were once useful, but now when all can read, and books are so numerous, lectures are unnecessary." Johnson died in 1784.

Better teaching leads to better learning. Better learning leads to a better world. If we accept those direct connections, how do we speed up the evolution and escape the conveyance of information model? What traps so many in this "sage on the stage" approach? *Doonesbury* makes a serious joke at the expense of college education and the general response appears to be no more than a collective shrug. Educators seem willing to accept mediocrity as our inevitable fate. Both Gallup and Derek Bok are merely reflecting the perceived state of current affairs.

Who is to blame? Should we follow Captain Renault's command at the end of the movie *Casablanca* to "round up the usual suspects?" Underachieving education has no shortage of potential scapegoats: administrators, legislators, deans, college presidents, cable television, standardized testing, video games, textbooks, alcohol and drug abuse, course evaluations, Covid,

the tenure process, helicopter parents, grade inflation, home schooling, accreditation requirements, social media, job recruiters and on and on. Over the decades, experts have piled large quantities of blame on every possible guilty party.

Personally, I fault Newton's first law of motion, also known as the law of inertia, which states that an object at rest stays at rest and an object in motion stays in motion with the same speed and in the same direction unless acted on by an unbalanced force. Unfortunately, a human version of inertia rules too much of life. The conveyance of information model will never change until challenged by an opposing force. To date, that has not happened with sufficient power, which is why educational progress is slow. Nearly a century ago, Albert Einstein supposedly opined, "The value of an education in a liberal arts college is not the learning of many facts but the training of the mind to think something that cannot be learned from textbooks." Let's get started.

During my career, I have discovered that when I become frustrated by a chronic problem, I need to step back and simplify my approach. Vince Lombardi, the legendary pro football coach, said, "Some people try to find things in this game that don't exist but football is only two things – blocking and tackling." In classrooms where learning takes place (whether live or online), success depends on only two groups—the teacher and the students—and the teacher is the one in charge. If students perceive that a teacher's demands are fair and effective, most will follow, usually with few complaints. For them, it is often the path of least resistance. Thus, practical innovations in the learning process must emanate from the teacher. I believe this assertion. It forms the core of my message.

When considering changes, schools do not necessarily place much trust in the individual teacher. Administrators often prefer to form committees, call meetings, set goals, discuss issues, have open forums, seek consensus, approve requirements, and mandate extensive documentation. Movement is slow and can tend to become an accumulation of compromises. Great teaching is rarely a team sport. Most of us have unique styles that react best to independent experiments. From my perspective, better education is constructed one person at a time. Consequently, in this book, I provide no recommendations for either universities or teachers as a group. I am writing for you, the individual teacher who is ready to make a 5 percent improvement this year. As I tend to repeat frequently, that 5 percent goal is the key to your educational evolution.

Changing You. How do we move beyond a conveyance of information model that has been in place seemingly forever so that we can transition to a critical thinking model? I have no answer for college education in general. I am not trying to change the entire system. I merely want you to consider changing yourself. That will never happen, though, unless you believe in this goal so deeply that the necessary work is a true priority. If great education is not a burning desire, something more interesting will always claim your energy and enthusiasm. That is human nature.

A few years ago, I received an unexpected email from a former student. He had been in two of my classes more than 30 years earlier. I had received no communication from him since his 1990 graduation. Almost forgotten, he was still a 22-year old student in the back contours of my mind. In reality, he is now much closer to retirement than to college. His email opened with an ominous remark.

> You told us something at the end of a class during my senior year that has influenced my life ever since that day.

I was stunned. My mind raced through the million possible comments I could have uttered on that one day so long ago. Whatever I told those students was now several decades old, but the message was obviously still alive and relevant to this former student. Had I damaged his life or been an inspiration? In teaching, both are always possible. A teacher makes many statements during an active class period. Students forget virtually all of them within minutes. Nevertheless, they sometimes hold fast to an obscure message that was not supposed to carry any significant meaning. What did I say to this group that made such a long-lasting impression?

My thoughts reeled with uncomfortable possibilities,

--"Unless your work habits improve, you are never going to amount to anything in life."

--"You might want to consider joining the military or choosing a different major."

--"If your parents are paying for your education, they should ask for a rebate."

I did not recall ever having made snarly remarks like these, but odd statements can pop out at unguarded moments. On occasion, a student will completely misinterpret an innocent quip meant as humor. Talk enough and you will eventually misspeak.

With a sense of trepidation, I scanned the former student's email until I found the quote and, in truth, those words from so long ago did sound like a message I would have shared with my students, both then and now.

> Many people care more about the success of their favorite sports teams than they care about their own personal success.

These words seem sad. What led me to share this sentiment with my students?

I enjoy sports but rabid fans amaze me. The obsessive loyalty many feel for their favorite teams is hard for me to fathom. During a baseball game between the New York Yankees and the Boston Red Sox, tens of thousands of fans scream, cry, and curse as if the fate of the world teeters in the balance. When Duke plays North Carolina in college basketball, an entire state almost grinds to a standstill. I once visited Madrid and found the city's emotions on fire over the prospects of a soccer match later that evening.

No matter how avidly you support a team, those contests are merely games of no particular consequence. Win or lose, the world does not change in any significant way. No lives are saved. No radical discoveries are made. Society remains the same. Virtually none of the legion of roaring spectators has ever even met one of the players. Yet, fans will pledge undying allegiance to a particular team and break down in sobs over an unpopular outcome.

What if we became that energized about our own careers and aspirations? Instead of cheering wildly for a team of rich athletes playing a meaningless game, what would happen if teachers today held that same intense enthusiasm for their jobs, their responsibilities, and their accomplishments? The potential for educational success would skyrocket.

I do not want people to stop enjoying sporting events. Rather, I believe everyone should channel a reasonable part of that energy into their own career activities. For example, when is the last time you told someone, "I'm so excited about my job as a teacher. I want to jump up and down and yell with joy."? Scream loudly for the Philadelphia Eagles or the Kansas City Chiefs if you wish but realize that those teams and their games are never going to conquer poverty or homelessness, wipe out disease, or create sustainable sources of energy. Save a portion of your excitement for the people (hopefully including yourself) who seek to provide a quality education to every human on this planet. They truly deserve praise. Bring on the cheerleaders.

What message was I hoping to convey to that young man and his classmates 30 years ago? I wanted them to realize that they were unlikely to make a difference in the world unless they identify and order their priorities in a serious manner. Figure out what is important to you and then go for it. I believed that assertion then and believe it as strongly today. Watching someone else compete should not serve as a substitute for our personal attempts to succeed. If you want to be a better teacher and help push the evolution of education, the desire cannot be casual. Genuine excitement is necessary to fuel your focus, drive, and ambition. Never let the trivial parts of life divert attention from what is important.

I am convinced that the conveyance of information model will eventually fade into obscurity. That seems inevitable. However, the change will not happen until colleges and universities settle on an educational purpose that is worthy of such a monumental endeavor. For me, that goal is a critical thinking model. When that happens, the rampant criticism of education will begin to abate. Yes, colleges today face serious challenges. Nevertheless, your classes can be different, and that will help drive the process of evolution. Put your energy and enthusiasm into the task and you can be one of those teachers who successfully overcomes inertia. My advice is always going to be the same. Construct your own Rube Goldberg Learning Process and then work to achieve 5 percent improvement each year.

Perhaps one day soon, someone will write a song or draw a comic trip celebrating the achievements of education and all who hear or see it will smile warmly in appreciation.

This chapter began with Professor G's distress that weaker students seemed to do better on a test question than did his more involved students. The class was asked to identify six fundamental rules. My response to Professor G is simple, "Ask better questions." Why require students to memorize a list that could be learned in a short cram session shortly before the exam (and forgotten immediately thereafter)? Is that really the knowledge that the teacher wanted those students to gain? Better students will be more likely to score well if Professor G gets away from a conveyance of information type of testing. As will be discussed in the next section of this book, I have often told teachers, "The way a teacher tests sets the path for the way students will learn." If you want to stress critical thinking, then every component of your Rube Goldberg Learning Process must align with that goal. What kinds of questions might Professor G have asked that would have reflected a deeper understanding of the material?

LESSON THREE

THE EDUCATION DIAMOND

WHAT ARE THE FOUR POINTS THAT FORM THE FOUNDATIONAL STRUCTURE OF YOUR RUBE GOLDBERG LEARNING PROCESS?

Question. Professor H is a new professor with limited teaching experience. During the first semester after earning her Ph.D., she teaches undergraduate classes that meet 75 minutes twice each week. She likes her students. She enjoys the course and the material being covered. Professor H wants to be a great teacher and spends countless hours working on lesson plans so that virtually every minute of each session is choreographed. To date, she is moderately happy with the results. Nevertheless, if she is honest with herself, the amount and depth of the learning is good but not great. The students are bright. She knows they could accomplish more. Class discussion is sporadic. The students struggle to retain their understanding of key topics for more than a few days. Professor H comes to you for advice. She wants to know how to become a better teacher, how to begin making an annual 5 percent improvement? What would you tell her?

The Four Points Where Improvements in Your Class Can Be Made. Approximately 20 years ago, I was asked to give a talk to a group of college teachers. The program marked the opening of the academic year. The dean of the school hoped I would provide her faculty with a few innovative ideas to consider. I tried to act blasé, but I was thrilled to receive the invitation. I had never done anything like that previously. I had high hopes. I wanted to deliver a message that would be beneficial to one and all. By that time in my career, I had attended many teaching presentations and knew they could be fascinating from a theoretical perspective. However, I often walked away not knowing how to put the speaker's bullet points into practice with my

students. I wanted to convey more useful ideas, practical suggestions that could be implemented immediately by every member of the audience.

Consequently, after considerable thought, I came up with the concept of the Education Diamond. I needed an organized way to explain my approach to student learning and the effective structuring of a college course. It was not revolutionary, but it provided a central focus for my talk. I do not know whether the teaching practices of any of the listeners was affected by my words, but I never looked at my own courses in the same way after that presentation. I have come to view the Education Diamond as the skeletal structure that underlies my Rube Goldberg Learning Process.

As anyone who follows baseball knows, a diamond has four points. My assertion to the group that day was that the standard college course has only four primary points of contact with students. A teacher who wants to improve student success must adjust at least one of those four points. Now, two decades later, whenever student progress in one of my classes is not to my liking, I always step back and consider which of those four points is most in need of attention.

--*Point One:* Includes everything students are asked to do in advance of a class session so they will be prepared properly for the coming discussion. I cannot overemphasize the importance of convincing students to prepare prior to each class. Win that battle and every other component of your Rube Goldberg Learning Process will be more likely to go well.

--*Point Two:* Includes everything students are asked to do during a class session to stimulate and organize their understanding of the subject matter. Lectures, exercises, and group discussions are just a few possibilities. Most classes meet for about 150 minutes each week during a typical semester. How efficient are you in using that valuable, but limited, time?

--*Point Three:* Includes everything students are asked to do in the hours and days immediately after each class to help them solidify their knowledge and understanding of the material. Many students make the mistake of leaving class blithely assuming they have nothing important left to do until they begin preparing for the next session. In my opinion, the failure to follow up the class experience in an effective and timely manner is the biggest weakness in education.

--*Point Four:* Includes everything students are asked to do on tests and other graded assignments to demonstrate their knowledge and understanding of the material covered in the course. At the end of the previous section of this book, I commented that, "The way a teacher tests sets the path for the way students will learn." Most students adapt their learning style to fit with their expectations of the grading process. If they believe you will test memorization, they will memorize whether you want them to or not. Teachers can nullify every bit of work expended on the first three points of the Education Diamond if they fail to tie test questions and other graded requirements into the learning that the students were asked to accomplish.

In my mind, the four points of the Education Diamond create the foundation for each teacher's personal Rube Goldberg Learning Process. Over the years, this concept has helped me provide structure for the individual steps I take in my classes. Every assignment, every test question,

every communication, and the like must fit together so that the entire system runs smoothly and effectively.

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Before I examine these four points in detail, I want to identify three interconnected caveats. Consider these warnings carefully before you seek improvement at any of the four points of the Education Diamond.

Caveat One: You Must Know Your Ultimate Goal. The Education Diamond you are developing will not work unless you have a clear understanding of what you intend for it to accomplish. For that reason, I start the semester and every class session with a mental image of what I want to see happen during the last class of the semester. As I explain to my students, "If you don't know where you are going, you don't need a map." I wrote earlier in this book that a college course should be transformative. That only works if you know as clearly as possible what you want that transformation to look like.

Here is my vision. I picture my students on the last day of class arriving early so that they can chat with each other about their assignment. They are fully prepared and eager to discuss the issues on tap for that day. They are confident. They are ready to justify the solutions they have developed for the questions and puzzles I have assigned. The last day's work did require serious thought and effort, but the students spent the necessary time. They know logical responses are possible. Class begins and the conversation is animated. Everyone is willing to speak and express their opinions. The students are interested and engaged even though the material is complex. They do not fear being belittled or reprimanded. They take what they have learned during the semester and use it to arrive at reasonable answers to each new question. I say as little as possible although I willingly step in when I have a thought I want to convey. Most importantly, a sense of joy permeates the room. Learning should always be fun. At its best, I believe college education is a serious mental challenge laced with enjoyment.

That last class is the transformation I hope to create. It guides every step I take during the semester as I build the course to the desired finale. Whenever I make class decisions, I consider what action is most likely to help my students arrive at this outcome. I have never achieved 100 percent success, but I am convinced that the students learn more and think deeper because I know what I want them to accomplish.

How do you want to see your students behave on the last day of class? If you spot a four-leaf clover in the grass today that grants educational wishes, what student transformation would you want to occur from the first to the final day of the semester? As the saying goes, "If you can dream it, you can do it."

Caveat Two: You Must Convince Your Students to Spend Sufficient Time. I often write three words on the board for my students to ponder, "Hours Equal Points." The Education Diamond cannot possibly succeed unless students invest a substantial amount of time. Developing a deep

understanding of complex college topics is not easy. Learning cannot be rushed. Without the luxury of time, no educational system works well.

When I first entered college in 1966, a common maxim was that each student should expect to spend three hours outside of class for every hour in the classroom. In truth, I doubt that I came close to that objective in any course during my four undergraduate years. Looking back with embarrassment, I am certain that my final grade point average would have been more impressive if I had looked for fewer shortcuts and invested more hours.

Grade inflation has certainly made the prospect of convincing students to spend hours on class assignments more challenging. Ask yourself the obvious question, "If most of the students in your class expect to receive an A, what is the incentive for them to put in much effort?" College students once lived in an era where the threat of a failing grade was not simply a ghost story told to frighten the unaware.

Preparing for class, following up on the class coverage, and periodically studying for tests and completing other graded assignments take time. The teacher needs to make that clear. Like a marketing firm working to convince the public that a product is essential for wellbeing, a teacher should emphasize the importance of studying for a reasonable amount of time. The success of the Education Diamond rests in students believing that (a) hours of work are necessary for successful learning and (b) the gained knowledge is worth the effort. A famous sports quote states, "The will to win is important, but the will to prepare is vital." In my opinion, that wisdom can be vastly improved with a few additional words, "And preparation takes a lot of time."

Author's Note: I do not plan to bring too many specifics from my own teaching into this book. My goal is to help you make a 5 percent improvement each year by constructing and adjusting your own Rube Goldberg Learning Process. My specific method of teaching has no relevance to how you go about becoming a better teacher. I teach in a way that works for me. You should do the same.

Nevertheless, in the section above, I assert that teachers need to convince students to study for a reasonable number of hours outside of class. I can imagine readers stopping here to laugh and say, "Trust me. That is easier said than done. If I did that, every student would expect to receive an A or they would complain on the course evaluations that they were horrendously overworked."

Teachers do face a risk if they push students to succeed. When I talk with teachers at my school or at presentations, I frequently hear this concern. Faculty fear student unhappiness, sometimes obsessively. However, with a well-considered learning process, I believe effective learning can be accomplished without either grade inflation or student retaliation.

Last spring, I had 41 students in my upper-lever classes. They all completed the course evaluations in their dorms. On those evaluations, my students estimated that in a typical week, they worked an average of 3 hours and 49 minutes outside of class for every hour they attended

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class. To carry that one step further, 73 percent indicated that they believed the pace of the class was, "About right," whereas less than 3 percent judged the pace to be, "Way too fast." That work led to the following grade distribution: 39.0 percent earned an A or A-, 31.7 percent earned a B, B-, or B+, and 29.3 percent earned a C, C-, or C+. No one failed, no one made a D, and no one withdrew or received an incomplete.

I also taught an introductory class of 25 first-year students. In their evaluations, they claimed to work 3 hours and 30 minutes each week outside of class for each hour in class. Approximately 70 percent said the pace was "About right" and no one said the pace was, "Way too fast." Of those students, 32.0 percent earned an A or A-, 40.0 percent earned a B, B-, or B+, and 28.0 percent earned a C, C-, or C+. No one failed, made a D, withdrew, or received an incomplete.

These statistics prove nothing about my class except that the students felt they worked nearly four hours for every hour in class and received grades that were neither all outstanding nor all average. A much more complex analysis would be necessary to determine whether the class was successful. The numbers do show, though, that the Rube Goldberg Learning Process that I have constructed over the decades convinced the students to work hard without bribing them with all A's. That is possible. Never let anyone tell you differently.

Caveat Three: You Will Likely Need to Help Your Students Learn How to Learn. By the time most students get to my class, they have been enrolled in school for 15 years or more. Many have spent 80 percent of their lives in one education system or another. Occasionally, if I become exasperated with class progress, I might point out, "You have been students for virtually your entire lives. Attending school has probably been your single biggest activity to date. By now, every person in this room should be an expert learner." Nevertheless, despite the extent of their academic experience, the transition to college-level courses can be brutal. Over the years, I have had many students sit in my office, often in tears, with a plea for help, "I did so well in high school. I am studying just as hard. Why am I making such poor grades in college?"

If you want your students to (a) master complicated topics AND (b) develop solid critical thinking skills, many will probably need careful guidance. Success at these two intertwined missions is a challenge even for the best and brightest. You cannot ask students to leap tall buildings in a single bound if you are not willing to help them learn how to fly. "Work harder" can be necessary advice, but "You probably need to work differently" is often more appropriate. You might have to demonstrate what that means.

When my students struggle, I suggest they come by my office and chat. I begin the conversation by asking them to describe their study routine. Their responses often seem like a memorized litany.

--I read the chapters in the textbook.

--I underline the material that seems important.

--I take copious notes in class.

--I rewrite my notes after class.

When students describe tasks like these as their basic approach to learning. I am reminded of the "conveyance of information" model. I believe that a fundamental weakness in college education is that too many students are not well trained in the steps necessary for becoming both critical thinkers and successful learners.

Whether you teach physics, English literature, psychology, accounting (as I do), or any other college course, you face key decisions. Do you want your students to go beyond the memorization of facts, figures, formulas, dates, statistics, processes, and the like? If so, how far do you hope to see their learning progress? Are you willing to design your course to help them achieve this goal? Learning to use class materials to stimulate critical thinking is a level of education your students might not have previously encountered. Careful structuring of the coverage is vital. Frequent communications as to what you want them to do and why are both essential. Otherwise, even very bright students can become confused and frustrated. Assignments must not only enable them to comprehend the topical knowledge but should also guide them in the type and depth of critical thinking you seek.

Consequently, as I describe the points of the Education Diamond, please realize that you will probably need to provide students with assistance if they are to make the desired transformation. To be successful, course requirements must stimulate both learning and thinking. None of this is ever simple. Students might not understand the first time we cover a complicated concept or even the second time. However, if we persevere, they will eventually be successful. As I will mention later in this book, one of my class mottoes is, "We will do it until you can do it."

For dozens if not hundreds of years, professors have fallen back on the ultimate educational trope to push students forward, "You better do the assigned work because this material will be on the test." That sounds like the Spanish Inquisition. I much prefer more enticing guidance, "Look at the second paragraph on page 98 of our textbook and tell me in class tomorrow why you think that paragraph irritates me so much." Or "Look at illustration 14 in chapter 8. What if we changed the number 5 in the first equation to 9? How would that slight modification affect other parts of the problem? Most importantly, why would anyone care about the difference?" Or "Look at the problem discussed on page 105. Explain how that example is different than the one we discussed in class last week and how that change affects your understanding."

Such assignments lead to delightful class conversations that go beyond basic memorization. Students realize they are expected to participate actively. They know they will be asked to address these questions. Such puzzles create interest. Who doesn't enjoy a good puzzle? The teacher guides the students' comprehension of the material while also helping them to develop their critical thinking skills. Achieving one of those goals is difficult. Achieving both is thrilling.

Helping students learn how to learn takes more than clever class assignments. A holistic approach to their educational progress is needed. As I discuss in Appendix A, before the semester begins, I offer extra credit to my students if they read either *Make It Stick* (by Brown, Roediger III, and McDaniel) or *Outsmart Your Brain* (by Willingham). Many great books are available on effective learning, but I especially like these two. They are well researched and present proven tactics in a way that can be useful to both teacher and student. If I were suddenly named king of the education world, I would mandate that all students entering college read one of these two. Better still, I would require every college and university to create an introductory course for all students titled, "How to Learn Deeply AND Develop Your Critical Thinking Skills," based on those books.

If you expect college-level work from your students, many will need your help in making the transition.

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With these three caveats in mind, I want to look more closely at the Education Diamond.

Points One and Two: Student Preparation and Effective Use of Class Time. Although student preparation and the physical class experience are two separate points, they are so closely tied together that I prefer to discuss them as connected topics.

One of my first discoveries when I began teaching was that if students showed up for class without adequate preparation, my options were severely limited. Unprepared college students simply do not possess the background knowledge needed to do more than listen and take notes. Without preparation, they can neither analyze serious questions nor take part in group discussions at the depth I feel is appropriate.

Students who arrive at class without completing the preliminary assignments leave the teacher with few alternatives other than to lecture. It is the one choice that requires nothing of the students. That is why lecturing remains popular. At that point, teachers often take the road most travelled and fall back on a conveyance of information model. If you want your class to focus on the mastery of topics and development of critical thinking skills, students must be prepared when they walk into class (or click into a Zoom session). Preparation is not work that can happen on occasion when it is convenient for the students. The teacher must be able to anticipate that the students will be ready to contribute at every class. Without consistent student preparation, I do not believe any class can qualify as great. Read that sentence twice.

For my first 20 years as a teacher, I relied on a common technique that I call, "Lecture plus Q and A." I gave the students a preparatory assignment for most classes. It was intended to help them understand the concepts we were going to cover. A few students completed the assignments. Most of the others skimmed through the material. I was never sure when I started class how many of the students were well-prepared. That was a bad feeling.

I would lecture for 10-15 minutes and then stop and ask a few relevant questions. Students who prepared in advance and those who listened carefully to my remarks were often eager to respond.

The rest stared at their hands. After a bit of conversation with the same students every day, I would resume my lecture. What was this sporadic questioning supposed to accomplish?

--To make sure the students continued to pay attention.

--To break up the droning aspects of my monologue.

--To provide cues as to what parts of the material were especially important.

During class, I did 90 percent of the talking. A few of the more eager students provided the remaining 10 percent. The rest barely had to breathe. Because I was fairly good at being a "sage on the stage," I won several teaching awards. My student evaluations were impressive.

And I was ready to quit. I was not convinced that my students were learning anything. They merely memorized what I said. My effect on them was minimal. They believed they were successful, whereas I knew that the entire process was deeply flawed. I could have spoken gibberish and they would have tried to transcribe it into their notebooks.

--I threatened the students with pop quizzes to encourage preparation. That tactic created far more tension than it did learning. Students would sneak into class each day as if they expected a bomb to detonate.

--I assigned homework to be completed before class that I took up and graded. Grading required hours of my time and appeared to have little positive value that I could see. Instead of expanding their preparation, these assignments narrowed the students' focus to those few questions. I also worried about cheating. Too many papers held identical looking answers.

In complete frustration, I spent countless hours one summer in the early 1990s trying to find a better way to structure my class. I have never thought so hard in my entire life. I wanted real learning. <u>I wanted transformative education.</u> I finally established a firm set of student expectations that changed my teaching radically. Looking back, I am amazed by how important these three sentences were for my teaching.

> Every student must know that they will talk every day in class. As a group, the students must do at least half of the talking during each class. When students talk, they must have sufficient knowledge to make their words and thoughts worthwhile to the group.

I ended the spring semester that year as a teacher who lectured with occasional questions and answers. By the time I returned to the classroom the following fall, I had stopped lecturing forever. As the famous Robert Frost poem advises, "And that has made all the difference."

I do not know what strategy will work for you in getting students to prepare for class. Here is where experimentation is so important. To meet my expectations, I started writing 3-8 questions and puzzles for each class that I gave to my students 48 hours in advance. I included a stern warning, "I am going to ask you and every other student in this class to respond to these questions. I do not seek perfection. I am not obsessed with getting to a reasonable answer too quickly. Nevertheless, I expect to hear serious ideas from you. I don't want blarney. I expect

you to be prepared. These assignments will take both thinking and time, but you can do it. I want responses that seem logical to you. I will ask you one or more of these questions or puzzles at every class session. Be ready."

After the students realized I was serious, preparation began to improve. Unprepared students are never delighted to hear their teacher instruct them to, "Tell the class the facts presented in our first question and what you think the people involved should do next." The preliminary work was not always great, but most of the time, students came to class better able to provide legitimate responses. I never pulled any tricks. I did not skip questions or talk about unassigned topics. I made an unspoken promise, "I believe the assignments are interesting. If you will spend an appropriate amount of time preparing, we will then be able to use our class session to come up with reasonable solutions. Give it a chance. The exploration will be fun."

The key for me, then and now, is the construction of the questions. I have two distinct goals. Some are designed to establish foundational knowledge. Others are puzzles to help students develop critical thinking skills. The questions should be written carefully to lead the group through each topic in a logical sequence. From my perspective, most people are sequential learners. They struggle if the teacher moves from Step A to Step X and then back to Step J. The teacher has a clear vision of the entire concept and can understand the material from a variety of angles. In contrast, the subject is new to the students who are always on the verge of confusion. A complex topic is easier for them to assimilate if the lesson starts with Step A and then goes to Step B and Step C and so on. Even the brightest student will struggle unless the questions are initially presented in an order that is consistent, clear, and carefully structured.

Some questions are basic. "Robert Frost's poem *The Road Not Taken* was published in 1915. Describe the world that the first readers of this poem faced." Using a Google search, students can uncover the requested information, probably as background for the probing questions that will follow. In class, I might have the students construct a ranked list of the world's challenges at that time.

Other assignments resemble complicated puzzles, "Assume you are Woodrow Wilson, president of the United States. You are presented a copy of Robert Frost's poem *The Road Not Taken* when it is first published. You read it and then read it again. How might Frost's words affect you and your political decisions in 1915?" Here, students are being asked to speculate. That requires careful thinking about the poem but also about the world situation that the president faced and an understanding of his political inclinations. Factual answers are rarely available for such questions. I hope to elicit a considered response. Students must analyze the message of the poem within the context of Wilson's beliefs at that time.

I walk into class. I select a student at random and ask that person to explain the first question. I want the student to guide the class into the information that has been provided. I do not necessarily pick the best student in the room or the worst. I want every student to be involved. I never award "participation points." In my classes, preparation and participation are fundamental requirements. Without both, I am not sure why a student is in attendance.

If the first student makes a comment that catches my attention, I will pose a further question. Or I switch to a second student and ask that person to comment. Typically, many students become involved with each question. I picture this process as a group conversation where at least one person (the teacher) is extremely curious. One by one, we explore the questions and puzzles, and, in that way, students begin to develop a deeper understanding of the material.

Assignments are distributed at least 48 hours in advance of class. I want the students to have adequate time to consider the questions thoroughly. The students know they will be called on at least once every day. Hopefully, they realize that this process is designed to help them think about the material and begin to develop a strong understanding.

As we explore a topic, one of my favorite questions is, "Based on the last few minutes of our conversation, what do you think my next question is going to be?" If the students have successfully followed the sequential coverage, they should be able to anticipate where I want the discussion to go. "Anticipate" is a word I stress often in class.

When I describe my approach to college teaching, colleagues and other teachers often pose questions.

Q: A lot of teachers say they use the Socratic Method. Isn't that what you are doing?

A: Absolutely. I am not sure that Socrates gave his pupils the questions in advance, but this process is simply my version of the Socratic Method. One variation is that he tended, I think, to talk with one student or a small group. I am working with a roomful of students. However, I do not see that as an important distinction.

In the Vatican Museum, among hundreds of statues, I recently came upon a sculptured bust of Socrates. A photo of that artwork now resides on my office wall. I am not trying to create something new. Rather, I attempt to apply the Socratic Method in a way that works for me.

Q: How does your teaching differ from others who say they use the Socratic Method?

A: The differences might be slim. I know teachers who use a "Lecture with extensive Q and A" approach and refer to it as the Socratic Method. In my version, I ask questions every minute of every class. I find that both exciting and effective. I want my students to know what to expect as soon as they walk into class. I try to avoid surprises so they can be ready.

In teaching, the goal is to find the approach that works for you.

Q: What happens if you have a student who will not prepare regardless of your encouragement?

A: Every semester 5-10 percent of the students resist doing the work necessary for adequate preparation. As soon as that becomes obvious, I call them to my office and ask them why they are not preparing. Many seem surprised that I have noticed. Students often feel invisible in school which gives them courage to ignore the teacher. I want them to know they are not invisible.

I explain what I want from them and why. I need for them to know why I am unhappy. I tell them that the tests are going to have the same look and feel as the class. Doing well in class will help them be ready to do well on the tests. Finally, I suggest that they consider withdrawing from the course if they prefer a different approach. They are adults. They need to choose the education they want. My feelings will not be hurt.

Sometimes I try to generate a feeling of success in a reluctant student. I hope that encourages better participation. I send the student an email 24 hours in advance with a message such as, "Tomorrow, I will call on you for question 4. I want you to have the world's greatest answer ready." A solution for question 4 still requires preparation. I am not saving the student any time. I am just increasing the odds for a successful response. Perhaps, a strong answer will feel good and leave the student wanting more. The student might try to replicate that achievement on other questions as the class moves forward. Success breeds success. Progress takes patience.

However, unless you are teaching robots, no system works every time with every person. I want my students to be prepared so they can learn and understand the material. Most of the time, this process has worked well in my classes. Experiment so that you can come up with a process that will succeed for you and your students. That is time well spent.

Unless you are comfortable with a single approach, always be watching for other options. Find the best teachers you can and ask, "How do you get your students to prepare for class, and what do you do to make use of that preparation?" I once had the pleasure of working with a literature professor who is a marvelous teacher. Occasionally, she started class by directing the students to read a selected paragraph or two from the novel they were studying. She then instructed each member of the group to write for five minutes about the passage. They could take any approach they wanted. I was often amazed that semester by how those "free writing" sessions were immediately followed by passionate and insightful discussions. The students wrote for only five minutes but that seemed to open their eyes to extraordinary elements hidden in the chosen paragraphs. Those class days were fabulous.

In our exploration of teaching, we always have more to learn.

Point Three: Learning After Class—Dealing with Swiss Cheese Knowledge. I have taught in college for many years. During those decades, one sad student lament has been repeated in my office more than any other. "I knew the material perfectly when we covered it. I was able to follow everything we did in class. I was certain that I was going to make an A on this test. However, when I read the questions, I had no idea how I was supposed to answer. I don't understand what happened."

I have long argued that the weakest link in education is the effort expended in the days following class coverage. Students are frequently unsure what to do next. Rather than working to organize and deepen their knowledge, many assume they have an adequate understanding because the material seemed clear during class. They declare victory and move on to the next topic. A great lecturer can make even the most complex issues seem simple. That trap ensnares many students. As I often tell my classes, "Being able to follow a complicated conversation is different than

being able to lead the conversation. That requires a higher level of understanding. Your goal is to be able to lead the conversation, not just follow it."

I prefer to be proactive, so I begin addressing this concern before it happens. Early in the semester, I explain to my students that they almost invariably leave the classroom each day with "Swiss cheese knowledge." Like a block of Swiss cheese, their understanding of the material appears to be solid, nothing to worry about. Their knowledge is actually full of hidden holes. Gaps exist in key areas of their knowledge. Many are tiny. Some can be huge. More work is required. An essential step in a teacher's Rube Goldberg Learning Process is helping students fill in those holes after class. If ignored, the holes will grow quickly as time passes.

In each day's coverage, an experienced teacher knows the spots where student understanding is most likely to be faulty. If well designed, test questions expose those holes. Why wait until students earn a bad grade on the first test to help them solidify their knowledge?

For this reason, on many days throughout the semester, I email my students within a few hours after class with an optional practice question designed to locate and address any potential weaknesses.

> Here is another puzzle like the ones we analyzed this morning in class. It is a bit harder because I want to see if you can stretch your understanding to make it even more useful. The answer is included at the bottom of this email without any explanation. The problem is designed to take approximately 15 minutes.
>
> If you arrive at the answer in that time, you probably have an adequate understanding of today's class and should begin to prepare for our next session. If you are unable to get the answer in 15 minutes, review your class notes and try again or come by my office. I will be glad to give you a push in the right direction. One warning: don't procrastinate! I assure you that the problem will not become simpler over time. You need to attempt it within 48 hours before the knowledge begins to seep out of your brain.

I refer to these after-class-questions as "10 percent problems," because I try to make them 10 percent harder than what we did in class. They should be more difficult without being impossible. I want to be helpful and not discouraging. I am not merely seeking to review the students' understanding. I hope to stretch their knowledge and fill in any holes that are likely to be present. I want the students to take what they have learned in class and make it better.

Notice two important numbers appear in this email. First, I suggest the problem should take approximately 15 minutes (although other problems might require a different number of minutes). I have found that if I fail to include a reasonable time limit, many students will skip the exercise. They fear the problem will require hours and they do not like that uncertainty. Students are harder to coax into doing the practice work if they suspect a substantial amount of time will be necessary. If the question is constructed carefully, it can be relatively short but still cover the material at a more complex level.

Second, I want the students to attempt the problem within 48 hours. To get that quick response, I need to instill a bit of urgency. "Don't procrastinate!" Otherwise, they will defer any attempt until the problem is forgotten altogether. That is human nature or, at least, student nature.

I always provide the students with the following rule of thumb about these 10 percent problems.

--Students who want to earn A's will be in my office with questions within 48 hours.

--Students who want to earn B's will be in my office with questions a couple of days before the next test in hopes of bringing the coverage back into their minds.

--Students who want to earn C's will never look at these extra questions because they believe their understanding of the class coverage is already adequate.

I do not distribute 10 percent problems following every class, maybe only once a week. When each session ends, I think about our conversation and consider where the holes are located in the students' understanding. At that point, I make the decision as to whether additional work might be the remedy needed to solidify their Swiss cheese knowledge.

Point Four: Making Sure Your Tests Help Improve Student Learning. In the late 1970s, I was on the faculty of a university with a wonderful number of bright students. Organizing classes to keep everyone actively engaged was a difficult but pleasant challenge for a young teacher. One spring semester, a student sat through my opening session but was then absent for the following several weeks. I assumed she had dropped the course. Before sophisticated computer technology, keeping up with the official class roll was not always easy.

Much to my surprise, she showed up for the midterm examination. Apparently, the stimulating conversation on the opening day had not enticed her to return for a single class beyond the introduction. To my shock, she made one of the highest grades on the test. Until that moment, I had never become upset when one of my students made an A. This situation was different. We had covered a massive amount of information. I did not think the test was easy. Several students who were present at every class missed many questions and finished with poor grades. After the first day, she was never in the room but still managed to answer most of my questions.

How can this happen? I could not even ask for an explanation because she never returned after handing in her midterm exam. I looked carefully at her answers, but cheating was not evident. The most plausible explanation was that another student had passed along a comprehensive set of class notes. She probably studied them and, perhaps, read the textbook carefully. Such an approach could have enabled her to answer questions I had written specifically for the test. Her memory skills must have been outstanding. She was undoubtedly smart.

I had a big problem. I believe students need to be in attendance, either in person or online. Unless a teacher provides extensive videos, audios, chat rooms, and various other electronic resources common in distance learning, no one should be able to excel without being physically

present. Why enroll at a college if being in a class with the teacher and other students is not important? That was my opinion in 1979. It is no different today.

I might have been able to justify a perpetually absent student earning a low C but never an A. I was trying to create a serious learning environment not a mechanical exercise designed to reward memorization. This student's ability to succeed without attending my class clearly indicated I was doing something wrong. Either the live sessions added no value, or the test questions did not require the level of learning I wanted students to achieve. If RateMyProfessor had existed in those days, I would have been mortified to read this student boast, "I liked this course because I was able to memorize a friend's notes and make an A without wasting my time sitting through the discussions." I did not blame her (although I did give her a failing grade when she was absent from the final examination), but I certainly felt an urgent need to create a better course.

This one student, whose name I have long forgotten, had a huge effect on how I structure my courses today. She forced me to think deeply about the essential purpose of a class session and its connection to grades and testing. What did I want students to learn by being present? How should I organize my Rube Goldberg Learning Process to test more than the rote memorization of textbook and course material? What connection should exist between class coverage and test questions so that they improve each other?

Earlier, in explaining Point Two of the Education Diamond, I discussed the importance of using class time wisely. Here, at Point Four, I want to focus on testing and other graded assignments (I will use the general terms "tests" and "testing" to save time). If your teaching stresses a conveyance of information model, then your testing should have the same goal. If you aspire to a level of learning that is more complex, your testing must mirror that elevated objective.

Although I have never used them, I know many textbooks come with extensive test banks containing thousands of questions. For me, writing examination questions is one of the most important tasks a professor faces. Creating fair and reasonable tests is an extremely personal part of the teacher's job.

--You know the specific material that the class covered.

--You know your students.

--You know what you expect from them on a test.

Is creating an effective test really a job that you prefer to abdicate to an anonymous stranger who turns out questions like McDonald's turns out hamburgers.

Bloom's Taxonomy is not difficult to find on the internet. This hierarchical classification system of learning objectives is easy to memorize—remember, understand, apply, analyze, evaluate, and create. Perform an experiment. Take the questions you select from a publisher's test bank and judge where they rank in Bloom's system. If you discover that all you are asking of your class is

to memorize facts, figures, and processes, do not be surprised if the students fail to respond with much enthusiasm. Ask little and you will receive little in return.

I am often amazed by how frightened some teachers seem to be of writing their own questions. I believe constructing excellent tests is a skill that can be learned. Avoid being fearful and timid. If you want to be a great teacher, work to write great test questions. Your students deserve a worthy challenge. Surely, even on a bad day, you can create questions that are better than a test bank. Practice. Reach each question carefully and judge what it accomplishes. Learn from your mistakes. Over time, you will develop the knack.

Other than the benefit of practice, I want to provide four suggestions, ideas that have helped me over the years learn how to create better test questions.

Suggestion One—The Story of the Testing Circle. Not every student will be fascinated by what you teach, but they are all intensely interested in how you test. Raise the subject and you will grab their undivided attention. For that reason, during the last session before our first test of the semester, I spend a few minutes telling my students the story of the "testing circle."

--I want them to understand how I will go about writing their test.

--I want them to understand that different questions on the test will serve different purposes.

--I want them to understand that I will not fill their test with memorization questions.

--I want them to understand that "perfect" is not the goal. I am trying to measure how much they understand and what they can do with that knowledge.

I draw a big circle on the board. "This circle represents everything we have discussed so far this semester. I keep good notes. I know each topic our class has considered. I will write about 1/3 of your test questions directly from this material because it covers what we talked about in class. I want to see if you were here and awake, that you paid attention and understood. If you can answer these questions correctly, you apparently followed our daily conversations with a basic degree of understanding. You are able to replicate the mechanics of our class lessons. That strikes me as approaching average work which is evidence that you are getting close to earning a C. Nothing is wrong with making a C. I earned quite a few of them when I was an undergraduate." I want the students to know that foundational questions will be asked but not too many. Although I do not mention Bloom's Taxonomy, I am obviously referring to the lower classifications.

I then draw an X roughly 4 inches outside of the circle. "This X represents another 1/3 of the test questions. They are connected to our class coverage but extend slightly beyond what we discussed in class. I want to see if you can use the knowledge you have accumulated to solve something new and different, something more complex. These questions will require analysis and thinking, but I am confident you can do that. If you understand the material well enough,

you can stretch that knowledge to arrive at legitimate solutions for this second group of questions. To me, success at this level starts to look like good work and begins to show me that you might deserve a B. Solving these problems indicates that you can apply what you have learned to analyze new and difficult problems."

I then draw a final X roughly 24 inches outside the circle. "This last X represents the remaining 1/3 of the test questions. Once again, they will be connected to our class work, but they are considerably more complex. These questions require you to evaluate key elements of the available information so that you can create viable solutions. I do not know whether anyone can answer all these questions correctly, but I am eager to see how well you do with the added degree of difficulty. Success at this level reflects excellent work and is worthy of an A. If you solve the questions in this last group, you and I will both have reason to be proud.

"As an example, every 10 percent question that I have emailed you after class during the past few weeks was either a B level or an A level question. They show the type of understanding that I want. Those problems should provide guidance as you prepare for the first exam. Each of them took what we had covered in class and built on that foundation to allow you to demonstrate the ability to make an in-depth use of your knowledge."

If my explanation is clear, the students will understand the levels of knowledge that I am attempting to assess through a wide range of test questions. I like that transparency. I also give them the equivalent test from the previous semester so they can review it and decide which of those questions came from inside the circle (the basic class coverage), which asked the students to extent their knowledge slightly, and which required them to understand the material at a deeper level.

I hope the story of the testing circle helps the students understand my logic as I construct their upcoming test. In addition, I want it to guide me as I write the questions so that I can reach my goal of achieving a fair assessment of the depth of each student's understanding.

Suggestion Two—Create an Answer Sheet. Students are never more interested in knowing how problems should be solved then they are immediately following a test. At that moment, their curiosity is intense. For that reason, I have distributed answer sheets almost since I administered my first exam in 1971. I assume most students will read the questions again and compare their answers to mine to judge the seriousness of any mistakes. Consequently, an answer sheet can be an important part of their learning experience.

When I first started teaching, I probably spent 95 percent of my time composing each test and the remaining 5 percent creating an answer sheet. It was merely an afterthought I dashed off at the last minute. Now, for most tests, I take more time writing the answer sheet than I do setting up the test. Why has creating the answer sheet become so important to me?

No teacher wants to discover in the middle of a test that a problem cannot be solved as written or the words can be read in more than one way. We all fear accidents that will tarnish the validity of the test. As I type suggested answers for each new examination, I look for internal flaws that might nullify the quality of a question. Physically creating an answer is a more effective way of spotting problems than merely reading the question multiple times. I always ask myself whether a different person might interpret a question in a manner other than the one I anticipate. With care, most test mistakes can be eliminated while producing the answer sheet.

In addition, as I create the answer sheet, I judge whether the solution for each question comes from within the testing circle, from slightly beyond the testing circle, or from far outside the testing circle. Is the difficulty of the test questions weighted appropriately? I do not want all questions to be at the C-level, but I also do not want them to come entirely from the A-level. Slight modifications can sometimes make a problem much easier or much harder to answer. Within the context of the exam you are constructing, which do you want?

A test creates an interface between what a teacher wants students to know and what they can demonstrate they have learned. The resulting grade needs to be fair. Questions should be set at a proper level of difficulty without unintended complications. After years of practice, I have found the best way to create a great test is to focus serious time and energy on the answer sheet.

Suggestion Three—Let Them Have Notes. When I talk with new teachers, one of my first pieces of advice is to allow students to bring notes (sometimes referred to as "cheat sheets") to every test. I usually let my students have 2 or 3 sheets during an examination. I limit the number because I want to force them to evaluate what is most important. They cannot simply write down every possible word that might be relevant. They must judge what information is likely to be most beneficial. That, itself, is helpful preparation.

I specify that these notes must be in the student's own handwriting. College students love to be entrepreneurs. I prefer that my better students not make extra spending money by selling copies of their notes to classmates. I also want to prevent them from bringing in 2 pages of a computer printout in a miniscule font that is only legible with a microscope. "Let's keep this simple," I tell them. "You can have two pages of notes during the test. You can write on the front and the back of each page. The notes must be in your handwriting. No exceptions."

What I really like about permitting students to have notes during my tests are the two messages that this decision conveys.

--First, the students are put on alert that I am not going to test memory skills. If I planned to ask questions that required memorization, I could not allow them to have notes. They would simply copy the answers from their sheets. I want them to realize that I am serious about asking deeper questions to see how well they can apply and analyze the material we have covered.

--Second, the availability of these notes sends a message to me. I cannot fall back on memorization questions. I first started allowing students to have notes on their tests about a 12-15 years ago. Much to my surprise, I immediately began to write better test questions. I had not expected that result, but it happened. I was forced to come up with questions that would go beyond the notes the students had sitting in front of them on their desks. That is why I adamantly recommend allowing students to have a couple of pages of notes during tests. You will have to consider what kinds of questions can be asked that are not directly addressed on those notes.

Like so many of my recommendations, try allowing notes once or twice and see what you think. Remember the Three E's: experiment, evaluate, and evolve. A testing experiment is not a tattoo. It is not a permanent decision. If you find that allowing notes works for you, then the evolution has worked. If the notes do not provide substantial benefit, they are easy to eliminate in the future.

Suggestion Four—Set Your Problems on Distant Planets. When I talk with faculty members about testing, they often confess that they have trouble coming up with creative, unique problems to assess their students' ability to think outside the class testing circle. If I create a question set in my known reality (Richmond, Virginia, USA, Earth), I face the same challenge. I am stifled by a plethora of natural, political, geographic, and scientific rules. My imagination seems to be bound up by the world I see and know.

However, if I create problems set on a distant planet, an entire universe of new possibilities appears. I am not stuck with earthly limitations. On a distant planet, time can run backwards, gravity can affect only certain metals, Hemingway can write like Faulkner, Michelangelo can discover the use of plastics, Monet can paint like Dali, men can be four feet tall whereas women are eight feet tall. On a distant planet, nothing can be assumed. Students must read each question carefully and consider the implication of any unexpected characteristics.

For example, after I create a basic situation on the planet "CryptoNight" and explain my assumptions, the quantity of interesting potential questions will begin to multiple like the heads of the Hydra. When I advise my students about an upcoming examination, my suggestions are simply to (a) assume nothing, (b) read the facts presented and (c) figure out what those facts mean within the rules of the problem's location.

A few years ago, a former student wrote me shortly after he had graduated. His email amused me. "I have now been out of school for nearly one year and have had an interesting time at my job. I have learned a lot. However, in all this time, I have not yet encountered one single problem on any distant planet. Not one. I am disappointed. I figured that I would become the company expert on Interplanetary Problems, but none has arisen so far. To tell you the truth, those test problems were more interesting than the actual problems I have encountered to date here in the real world."

If you can improve the four points of your Education Diamond, you can become a great teacher in record time. Study your current approach for each one: class preparation, use of class time, guiding students immediately after class, and the development of tests and other graded assignments. Describe what you typically did during the past year. Assume you were interviewed by a reporter from your school's newspaper. How would you explain how your class is designed to address each of these four points? Then, to jumpstart your 5 percent improvement for this coming year, write down at least one experiment you are going to consider attempting for each of those points.

When I was in high school, I learned that a turning point usually occurs in a Shakespearean play such as Hamlet or Macbeth, often in Act III. My English teacher referred to this action as the climax of the play because it marked a change in the main character's journey. In my mind, the climax of this book is right here. <u>If you want your teaching to become great, you must address the points of the Education Diamond.</u>

LESSON FOUR

AN EMAIL TO MY STUDENTS—THE MOST IMPORTANT DAYS OF THE SEMESTER

WHAT IS YOUR REACTION TO OUR FIRST TEST?

The well-known adage, "Timing in life is everything," is attributed to John Sculley, probably best known for serving as president of PepsiCo and later as CEO of Apple. His assertion seems especially true of messages sent to college students. Many times, they will ignore every teacher communication as nothing more than meaningless chatter. Then, at some magic moment, they will hear those same words of wisdom loud and clear. As you think about providing guidance and advice, consider when the students will be most open to hearing from you. Make effective use of those opportunities. Seize the moment.

For students, the multitude of questions that arise in connection with a college class all feel somewhat hypothetical until the first test. During the opening weeks of the semester, dozens of concerns float through every student's brain. Am I studying enough? What does the professor expect me to know? Are assigned homework problems important? Do I need to read the textbook? How am I doing in comparison to the other students? And so on. At the beginning of a course, uncertainty is everywhere, but a sense of urgency is not yet present.

However, when students begin their first test, reality sets in fast. The difficulty of the exam questions and the level of the student's understanding immediately become apparent. During the scary days between completion of the exam and the return of graded papers, students face serious

new questions created by their perceptions of the experience. What grade did I make? Why was I so confused by some of those questions? Should I have written more on the first few problems? If I did poorly, is that a sign that I am not capable of doing college work? Should I have prepared differently? Am I in the wrong major? Am I just stupid?

While waiting for their test results, most students are quite willing to listen to the teacher's suggestions. I want to take control of that short period of extreme interest and use it as a springboard for the rest of the semester. These few days can be the most important of the entire course. With the right message, the teacher can begin to mold a student's attitude toward the rest of the semester. Take advantage of the moment. You can push their plans and their confidence in a good direction.

--Some students can be overwhelmed with negative thoughts if they believe that they did not live up to their expectations on the first test. They can lose faith in themselves and never rebound.

--Other students can become overconfident if they do well on the first test. That attitude can lead to sad results. With the heavy demands of college, these students might be tempted to reduce the time and energy spent on the course following a good start. With declining attention, good grades can turn bad rather quickly.

Such reactions can strongly influence (either positively or negatively) the remainder of a student's semester.

In hopes of relieving the inherent tensions, I refer to our first test as "spring training." The students should think of it as a chance to assess how well they are progressing. In my mind, the initial examination is an opportunity for self-evaluation. When setting up the course, I make sure that Test One only counts 20 percent or so of the overall course grade. That allows me to tell the students quite honestly, "If you do poorly, you've got plenty of time to make needed adjustments so that you can do much better on the other exams. The primary purpose of the first test is to provide you with information on how well you are doing and guidance as to what you should do differently both now and going forward."

To convey a message they will hear, as soon as the first test is completed, I send the students a detailed email to suggest how they should think about their efforts. Based on the timing, I hope to have their undivided attention.

--I want to convince them that they can still do well in the course regardless of the grade they made. They should view the test as a learning experience.

--If they did well, they should consider what they did to earn that result. Then, they need to make certain not to wander away from this winning strategy.

--No matter what grade they make, I want them to consider changes they might need to make to help them do better in the future. Evolution is always appropriate. Improvement is an ongoing goal.

--I want them to realize that they are not in this course alone. I am ready to provide assistance, and I take that responsibility seriously. When a test goes badly, the student experience can seem terribly lonely. Many are young and far from home and family. My most important message is, "I am here to help."

Here is the email (slightly edited) that I sent to my students a few hours after they had finished the first test for this past semester.

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To: My Students

From: JH

In many ways, Test Two starts right now. Regardless of how you did today, Test One is over. Learn from it and then forget about it.

I am always intrigued by how students react to the first test in this course, and what adjustments they make going forward. Einstein famously said, "The definition of insanity is doing the same thing over and over and expecting different results." Will you be the same student next Friday that you were this past Monday?

Warning. This note is long, but I strongly urge you to read it from start to finish. Think about the ideas I pose. After the course is finished, I always have a few forlorn students who ask, "I'm smart enough. Why didn't I do better in this course?" That is a good question, but the end of the semester is the wrong time to raise it. Today is the time to start improving.

I have not yet graded the exams. My only observation is that this test looked like one I would write. It wasn't created by mistake. Today's exam is what you should expect in this course. I tried to cover a bunch of different topics. I tried to ensure that every question tied directly into our class coverage in some logical way. I tried to create a test that required you to read carefully and think deeply. I tried to write questions that had the feel of real life. I tried to make some questions reasonably easy whereas others were much more challenging.

I have always asserted that the 2-5 day-period right after the first test is the most important time in any semester. What did you learn from that experience, and how will you react to it? What is your strategy for success going forward?

In sports, at key moments, a game is either won or lost. In a college course like this one, a similar opportunity comes in the days that follow the opening exam. For me, no other time is as significant as far as your grade is concerned. Adjusting study tactics can make the difference between earning an A or a C.

Until now, you have had no way to know whether your work met my expectations. You have had no way to know whether you were understanding everything important in class or missing key concepts. You have had no way to know whether 2-3 hours of study between each class was

too much or too little. You have had no way to know whether you should worry about all the email problems I send out after class.

Today, those concerns started to have answers. When you get your test back, self-assessment is essential, but don't wait until then to get started. You have received an answer sheet. What did you miss on the test and why? What do you need to do differently in the future? Most of you have been students for at least 15 consecutive years. You might not be trained at much, but you should be an expert at being a student. Use that knowledge to determine what adjustments you should consider. I felt that every student was capable of answering all of those questions. If you didn't, then you need to start figuring out what changes might help improve your approach. I have always found that people of your age are good at adapting. So—adapt.

If you make the grade you wanted on Test One, then you only need to worry about minor adjustments, a little fine tuning. I suspect 1/3 to 1/2 of the class will fit into this category.

If you did not do as well on the test as you wanted, you need to consider three possible reasons. Pick the one that most likely applies to your effort. This decision will guide your work as you head toward Test Two.

Possibility One: You didn't study enough. Semester after semester, I estimate that 60-70 percent of my students don't spend sufficient time on this course early in the semester. Everyone takes shortcuts. That is a fact of life. One hour of work always seems more pleasant than two, but the complexity of this material demands self-discipline.

This problem is the easiest to fix. Get a little bit obsessed about the course. Start keeping a diary to measure how much time you study. I'm not talking about an occasional binge session where you do nothing for a week and then put in a ten-hour marathon. Consistency in studying is imperative. Spend 1-2 hours every day no matter what else is happening in your life. To be successful, this course must be your priority.

When working on class assignments, don't settle for mechanical answers. "What is going on here and why?" are two questions you should ponder when preparing. That depth of thought takes time. When studying, to quote Miss Piggy from The Muppets, "More is never enough."

Possibility Two: You didn't study effectively. You might have relied on techniques that worked well in the past but didn't succeed here. Improvement requires change. I will provide specific suggestions later in this email. Consider each one. Identify the steps you took prior to Test One. Write them out and look for places to improve. Come up with several new approaches, both large and small, that you can try out in your study routine during the next few weeks.

Possibility Three: You had a bad day on the test. It does happen. People have headaches or a personal problem arises right before they walk into the test site. I believe the first two possibilities are the most likely reasons for a poor grade, but off days can occur. If so, shake it off and start getting ready for Test Two. Nevertheless, be honest with yourself before you choose Possibility Three. Dismissing a bad grade is quite easy. All you have to do is rationalize the outcome to yourself, "I was distracted during the test and didn't do my best. I really knew

that material. I do not need to study more or study differently. I'll be fine on Test Two." Don't be delusional.

The main reason I think the 2-5 day-period following the first test is so important is because of how you react. I believe that each student will have one of the following four reactions. In class, I watch quite closely during this time. I want to see what changes take place in every person's work either for better or worse. What happens to you over the remainder of the semester can depend largely on which of these reactions applies to you.

Reaction One: You are pleased with your work on Test One and that gives you confidence to push even harder for a high grade. Many students who do well on Test One get excited by the realization that they are capable of making an A. They start working longer hours and more efficiently. I like to say that they "catch on fire" after the first test. It happens every semester. Their daily class answers immediately get better. I always have several students where a good grade on Test One propels them forward and they never look back. Confidence is a wonderful companion.

Reaction Two: You were pleased with your work on Test One. As a result, you start to relax and pay more attention to other courses or life outside of our class. You feel that the pressure is off and cut back on your study time. I am not a big fan of relaxed students. Within a few weeks, your A average can become a B and eventually slip to a C. At the end of the semester, you will be mystified as to how you lost the A. I have never yet had a semester where one or more students who made an A on the first test did not wind up with a C or worse for the course. How incredibly sad is that? Don't let it happen to you. If you are pleased with the first test, that is not a reason to slow down or work less. Consider how you made that stellar grade and keep up the good work.

Reaction Three: You were not pleased with your grade on Test One and that irritates you. You know you are capable, and you are not going to accept a poor grade without a fight. You begin to study every day. You spend more time on each assignment. You dig a little deeper. You do the email problems sooner. You come by my office more often, both before and after class. You don't leave an assigned problem until your understanding is solid. Your class answers begin to improve as your preparation gets better. Annoyance can be a great motivator. If it works, feel free to become totally annoyed with me.

Reaction Four: You were not pleased with the grade on Test One and your confidence is shattered. This reaction always breaks my heart. One test is merely a small part of a long semester. I can look into the eyes of these students and read their minds, "See, I knew I wasn't smart enough to do this stuff. This grade proves it. I am stupid and hopeless." That is absolute nonsense!!! Trust me. Everyone in this class is capable of making an A. I believe that completely. You might have to study more. You might have to study better. However, you have no reason to surrender after one test. Have faith in yourself and start by getting better prepared for the next class. Fight back.

Okay, if you want to improve your grade on our second test, what should you do? I have already mentioned several of these suggestions but here is an organized list. The time for action is now.

1 – Don't miss class. Everything I ask on a test springs from what we did in class. Getting notes from another student will NOT make up for an absence. In my experience, 75-80 percent of the students never miss class. If you do, that puts you at a real disadvantage.

2 – Go through the answer sheet for Test One very carefully. If you are not interested enough to analyze the answers to those complicated situations, you might want to consider whether you enjoy the material well enough to continue in this course. Lack of enthusiasm is never helpful. Read each problem and its answer and ask yourself several questions.

--Were you surprised by the question? Should you have anticipated a problem of this type?

--Should you have been able to answer the question?

--If you were not able to answer the question, why did you miss it? What specific aspect of the question were you unable to do? Identifying the actual mistakes within an answer is critical.

--Assuming that someone else in class managed to answer this question but you missed it, why were you not able to do as well as the other student? What did that person do in preparation that you failed to do?

3 – Be honest. In class, how often are you hoping that I will call on you with the next question? When your level of desire to be actively involved gets to be about 80 percent of the time, I assume you are properly prepared. Until then, you need to do more work prior to class. To put this suggestion a different way, how often do you tune out when I call on another student? In your mind, you should consider every class question to be YOUR question.

4 – When I send out practice email questions, how often do you work them within 48 hours? For best learning, solidifying the knowledge created during class needs to happen quickly. Procrastination is the worst enemy of every college student. If you could not work an email problem within 48 hours, did you come see me for clues and suggestions?

5 – How soon after class do you organize your notes? On the surface, my classes seem rather helter-skelter. Reflection is often needed to uncover the underlying structure. Every topic in this course is complex. Did you find time to create an outline of the coverage before your understanding began to slip out of your brain?

6 – I am a believer in constructing and practicing "3-second questions," a string of questions in a sequence that tie a topic together logically. Have you tried this? Write a question on one side of a 3x5 card and the answer on the other side. Think about what should happen next and write a follow up question and answer on the next card. Keep adding to the pack until the topic is covered. To review this material, pick a card and read the question, count to three, and provide the answer. Then, move to the next one. Carry cards with you at all times to allow for a few minutes of practice whenever you have a free moment. This continuous retrieval keeps the

material fresh in your brain. You might want to try this tactic going forward. Everyone needs a way to practice and review other than working time-consuming problems. Plus, coming up with the list of questions is an excellent way to organize the material in your brain.

7 – How often do you come to my office and ask questions? As I always say, I'm not lonely but I am here to be of assistance. If you don't recognize when you need help, that's a problem. If you don't care enough to seek help, that's another problem. Come see me. We can always chat about your progress and discuss how you might improve.

These suggestions should provide improvement. Ultimately, the first step is to have the right ambition. Set a bold goal. "I will be the best prepared student in the room for our next class."

I have a photo on my wall at home of a student's notebook from a few years ago. The student had written four words on it, "I Want It More!." She struggled with the first test in this course and decided she needed to change her entire approach starting with her attitude. She wrote those words on her notebook that day. Her work improved dramatically and she eventually made a solid A. After the semester was finished, she sent me the photo and explained its meaning. She recently started her first job in New York City. I would be surprised if she doesn't do great.

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One Related Story. Occasionally, when I am driving home from work, I listen to the show *Fresh Air* on NPR (National Public Radio). The host, Terry Gross, or an associate, interviews a person such as an artist, scientist, or anyone with a good story. I find the discussions fascinating.

About 15 years ago, I was listening to *Fresh Air* one afternoon and heard a short exchange that immediately caught my attention. During the years since then, I have thought many times about those few words and how they connected to the way teachers work with students. The person being interviewed was Brad Ausmus, a recently retired baseball catcher. He had played in the major leagues for 18 years. As of July 31, 2023, he ranks 8th on the all-time list for the number of games caught by one person.

The rules have changed but, in baseball, the catcher occasionally runs to the mound for a quick conversation with the pitcher. These visits typically happen when the game is going badly for the pitcher. Probably like every other baseball fan, I have wondered what the catcher can possibly be saying. In the radio interview, Gross asked that specific question, "When you go out to talk with the pitcher, what do you tell him?"

I was driving home from campus at the time so I could not write down the exact words but here is the gist of what Ausmus told her. "I always had one goal in mind when I went out to talk with the pitcher. When I left him, I wanted the pitcher to absolutely believe that he was capable of getting out of the situation that he was facing. If he didn't believe he was capable of taking care of the problem, we didn't have much chance."

I found his words fascinating. "I always had one goal when I went out to talk with the pitcher.

When I left him, I wanted him to absolutely believe that he was capable of getting out of the situation that he was facing." No wonder the guy played major league baseball for 18 years.

We communicate with our students all the time. Often, they have a problem. They have performed poorly on a test, they do not understand what was covered in class, or they have been lazy or busy and fallen behind. Frequently, the problem is entirely their fault. I am no saint. I often grow frustrated with the actions of my students. At times, I want to look into a student's eyes and say, "You messed up. This is all your fault. You're an adult. Let's see if you can get yourself out of this problem."

That type of response might make me feel better, but I am paid to teach students, not to put them in their place. I did not become a teacher to berate young people for the mistakes they make. I became a teacher to help them succeed, not half of them but all of them. Over the years, I have talked with hundreds of teachers. I have noticed that frustrated teachers can get into an "us versus them" mentality. "Students are lazy." "Students have to be told everything." "Students will cheat if you don't watch them every second." I honestly believe that in your class, the teacher and the students should always be on the same team. The catcher may be really upset at the pitcher, but he still wants the pitcher to do well and win.

When I get irritated by something my students have done or failed to do, I try to react a bit like Ausmus. When I talk with them about the problems they are facing, I want the conversation to end with a plan for getting them out of their mess. The plan might be for them to drop the class. The plan might be for them to seek counseling. The plan might be to start studying or stop missing class. At times, I do fuss at my students if I believe it is necessary, but I still want them to leave my office with a viable plan.

When students come to me with issues/challenges/problems, I attempt to (a) help them define the problem so everyone understands what we are talking about, (b) discuss what they can and should do to address the problem, (c) decide what actions they should take and when, and (d) make sure they believe that they can actually fix the problem. That does not mean that I am going to do the work for them. The catcher does not go out to the mound and offer to pitch. I want them to see that they have a way forward.

In baseball, the goal is obvious. We want our team to score more runs than the other team. In education, the goals vary somewhat from student to student and teacher to teacher. As I have said in this book, I want my students to learn and understand the material while developing critical thinking skills so they can have productive and fulfilled lives. When students lose sight of that goal, my job is to show them how to get back on track and help them believe that they have the talent and the ability to do just that.

Second Related Story. The above lesson explains a note that I email to my students after their first test. Is that the end of the story? Of course not, a semester is a long journey, and no single

message will solve all problems. Encouragement needs to be an ongoing effort. Here is another email that I send to my students, this time just before the second test.

To: My Students

From: JH

You have your second test next Monday. Here is a quick comment about how I think you should do on Test Two. A few years ago, I attended a play (*Equivocation*) about William Shakespeare. At one point during the first act, a young actor comes up to Shakespeare and asks something like, "You said that I was brilliant. Did you really mean that?" Shakespeare looks at him for a long moment and then responds, "You are brilliant, at your best." I immediately leaned over to my wife and whispered, "That's the message I wis all my students could hear." My one and only goal is to help bring out the best in you. Occasionally, you must wonder why I spend so much time and energy asking you complicated questions and pushing you incessantly to be prepared for whatever I throw at you. By now, I know each of you reasonably well. <u>You are all capable of true brilliance.</u> At times, each of you shows a bit of that brilliance in class. My guess is that those moments feel wonderful, both satisfying and empowering. Those moments can be addictive but in a good way. But you are only able to achieve that sensation when you are at your best. Mediocrity just doesn't have the same feel. For me, that's the point of this course. That's why I push you and send you so many emails. More importantly, that ought to be why you push yourself. You should never rely on me (or anyone else) to push you to greatness. That should be your job alone. Let me suggest a strategy. As you get ready for our second test, push yourself to perform at the "brilliant" level where you simply out-work everyone else. Try it for a few days and see how it feels. Don't work to be equal to the other students in the room. Anyone can be average. Work to be the best prepared person in class.

<u>LESSON FIVE</u>

TEACHING LIST NUMBER ONE

COMMON SENSE TEACHING

WHAT ARE THE NINE STEPS NEEDED TO TEACH FIDO TO ROLL OVER?

I make no secret of my fondness for lists. Show me a teaser for "The Top Ten Movies of All Time" or "The 100 Best Novels of the 19th Century" and I am intrigued. A magazine is sitting beside my computer as I type with a title that screams, "The 70 Greatest Bob Dylan Songs." Lists encourage a reader to consider and evaluate, two activities that are good for the brain. Is *Casablanca* a greater movie than *The Godfather Part II*? Was Charles Dickens a better writer than Jane Austin? These questions can engender hours of interesting

analysis and debate. Such exercises help us separate the significant from the trivial. In other words, they make us think.

Over the years, I have created numerous lists to help me better contemplate teaching. I often insert them into presentations or essays, but the benefit that I personally receive from any teaching list is always my primary goal. I want to improve and believe such lists can help. Because I value lists, I plan to sprinkle them occasionally throughout this book. Unless stated otherwise, they merely reflect my opinion. You have every right to disagree. I only ask that you consider my explanation before grading me too harshly for making a warped judgment.

A few years ago, I received an invitation to speak at St. Joseph's University in Philadelphia. I decided to consider the topic of great teaching from a new angle. College professors often believe that teaching is a mysterious adventure with complicated rules that only the lucky few can decipher. I hoped to convince my audience that the fundamentals of successful teaching were available to everyone. I refer to this belief as "Common Sense Teaching."

Shortly before my visit to St. Joseph's, I read *The Story of Edgar Sawtelle* by David Wroblewski. The novel was interesting, well written, and quite popular at the time. Although almost impossible to imagine, the book is a retelling of *Hamlet* set on a small farm in northern Wisconsin where a family breeds and trains dogs.

In the story, this family is truly outstanding at their chosen profession. Buyers drive hundreds of miles to obtain dogs trained at the farm. Wroblewski must have known a lot about such work because he spends pages describing how the members of the family teach the dogs to perform so well. As I read, I began to feel as if I were studying an education manual. Everything the author writes about training dogs made so much sense that I started mentally applying those lessons to the teaching of people. That transition worked, at least for me. What impressed me most about the described training methods was that the process was never more than common sense. The trainers did not rely on complex theories of learning. They just thought deeply about the steps needed to assist each dog in learning the desired lessons. Over the decades, I have read numerous books on teaching, but *The Story of Edgar Sawtelle* is one of my favorites even if it is a novel about dogs.

If I had started the presentation at St. Joseph's by asking how to be a great teacher, I suspect many members of the audience would have stared at the ceiling. Teachers often seem intimidated by the bluntness of that question. No one wants to appear either arrogant or clueless. Madeleine L'Engle, author of *A Wrinkle in Time*, observed, "I wish that we worried more about asking the right questions instead of being so hung up on finding answers." As with teaching, the key to a successful presentation is often the introduction of an opening question that entices the participants to consider the subject in a completely unexpected way. A fresh approach helps steer the conversation away from traditional, oft-repeated answers.

I began that day in Philadelphia talking briefly about my enjoyment of *The Story of Edgar Sawtelle*. I then described the following scenario to see what the group knew about dog training.

> Has anyone in the room here today ever taught a dog to roll over? (No one confessed to having had any practical experience.) Assume a rich couple hires you to teach their dog (Fido) to roll over. The dog seems bright and alert but is young and has never had any formal lessons. The owners offer a $5,000 prize if you can train Fido to roll over successfully. You want the money and accept the challenge. How would you go about teaching Fido to roll over? Take out a piece of paper and write down the steps you would likely follow. How will you earn the $5,000? I doubt that technology can help. I assume there's not an app for this task. You must depend on your basic teaching skills.

How would you answer this question? Be an active participant and you will gain more from this book. What steps would you take to teach Fido to roll over?

Sometimes, as we discuss the challenges of teaching, we overly complicate the process. In thinking about teaching and learning, we can become entangled by our own desire for perfection. KISS ("keep it simple, stupid") is a saying that I repeat to myself often each semester.

I was pleased that the audience members at St. Joseph's did not stare at the ceiling waiting for others to respond. After a few minutes of consideration, they all started throwing out suggestions. We wrote each one on the board and tried to narrow the list down to the essentials. Despite never having taught a dog to roll over, the group quickly settled on nine steps that were likely to achieve the goal.

1 – *Have a firm understanding of what you want the dog to accomplish.* You are the teacher. You should not start a lesson until you understand what you want Fido to do. If the goal is vague in your head, Fido has no chance of making it more concrete. For me, no other step in the learning process is more essential. Education is a random, ineffective act until the teacher can articulate specific goals.

2 – *Get Fido's undivided attention.* If Fido is checking out the local squirrels or the neighbor's cat, you have no chance to teach Fido anything. You must place the dog in a situation where unwanted interferences are as close to zero as possible. Fido will always prefer to chase distractions. You are responsible for keeping the focus on the lesson. Hence, every day for decades, I have started class by shutting the door and closing the window blinds. I require every phone to be put in a purse or backpack. As soon as a student begins to appear distracted, that person gets my next question.

3 – *All communications must be clear.* The teacher must communicate exactly what Fido is supposed to do. Fido cannot read your mind. If the communication is not clear, the poor dog cannot even raise his paw and ask for clarification. Demonstrate the desired outcome as precisely as possible. Good communications are vital. Get that right and

successful learning is much easier. Get that wrong and you and Fido are probably both out of luck.

4 – *Consistent treatment.* If you are harsh one moment and laughing the next, Fido will be confused and have no idea how to react. The dog does not have the experience with you that is needed to grasp the meaning of subtle changes in treatment. Fido can quickly become mystified or even fearful. Decide the demeanor you plan to establish and then stick with it unless the process is simply not working.

5 – *Build sequentially. Build incrementally.* As I often say, most learning occurs sequentially. It takes place in small leaps of understanding from one logical point to the next. You already know how to roll over. The process seems easy to you. In teaching, you must avoid jumping directly to the big finish. Fido only has the ability to make gradual improvements in understanding. Set the learning steps as sequentially as possible and keep them close enough together so that Fido can successfully move from one to the next.

6 – *Acknowledge proper responses.* I am a big believer that the world functions better when the people in charge pass out numerous pats on the back. Positive reinforcement is easy to give and it is free. Why then do so many individuals feel underappreciated by their bosses and teachers? If deserved, every person and every dog want to hear that they are meeting or exceeding expectations. Fido is always thrilled with a kind word (and a dog biscuit). With a few pats on the back, Fido will be ready to attempt whatever you ask.

7 – *Correct incorrect actions immediately*. If Fido does not roll over correctly and you fail to say anything about the mistake, the dog will assume he has been successful. He will continue to do the task the same way forever (and will believe you are delighted each time by his work). No one likes to fuss because it feels confrontational. Nevertheless, if Fido does the assignment wrong, you have to stop the incorrect action right then or you will make it worse. Fido will always interpret a teacher's silence as "Good Dog! That is perfect."

8 – *Repetition Repetition Repetition.* Rolling over is easy for you because you have years of experience. It is more difficult for Fido who is new to the task. No matter how many times you think you will have to demonstrate a process, it will probably require twice as many. A student who needs to "see it again" can annoy teachers because the goal seems so very easy to achieve. Fido is not being lazy or obstinate. Repetition is essential if you want Fido to learn. Almost no one hears or sees a lesson once and then has it down perfectly.

9 – *Time and Patience.* Learning is not a race (although our education system often seems to favor speed). My daughter has cerebral palsy with some physical and mild memory problems. When she was young, we were told many times by the experts that she would never do well. Nevertheless, she eventually graduated from a wonderful university and has now earned her graduate degree. She has taught me so much about having patience. Not everyone works and learns at the same rate. Fast is not necessarily

a desired outcome. The learning is important, not the speed. Keep that goal in mind. If you want success, give Fido the time needed and stop looking at your watch.

Now, go back to each of these nine steps and change the words "Fido" and "dog" to "your students" and I believe each one will read just as well. This list provides common sense teaching lessons that I learned from *The Story of Edgar Sawtelle*, a novel about a dog-training farm in northern Wisconsin.

Assignment. Self-assessment is difficult. Some people are invariably too hard on themselves. Others give themselves a pass for every poor action. Improvement at any task is difficult without an honest attempt to separate strengths from weaknesses.

To that end, assume that a group of typical students from your most recent classes are gathered. They each receive a copy of the above nine steps with "students" replacing "Fido" and "dog." For example, "have a firm understanding of what you want the students to accomplish" and "get the students' undivided attention." The students are then asked to work together to rank your level of success on each of these nine steps from best to worst. How do you believe their finished list would look? For your teaching, which of the nine do you expect to be on top? Which is most likely to be picked as worst?

Finally, take the three items that you placed at the bottom. These steps are where genuine improvement in your teaching is easiest to accomplish. For each, write out as many actions as you can imagine that might prove beneficial. Be innovative. Be creative. Brainstorm. Do not limit yourself to standard answers. For these three only, what could you attempt that might turn the weakness into a strength? Through this exercise, you will have identified possible experiments that you can attempt in seeking 5 percent improvement in your teaching during the coming year.

LESSON SIX

LONG-TERM MOTIVATION

HOW DO GREAT TEACHERS MANAGE TO INSPIRE EACH STUDENT TO HAVE FAITH IN THEM?

Question. Professor I teaches a sophomore-level course at a large university. Most students only enroll because a passing grade is required for graduation. Professor I has taught the course for several years. She believes that many of her students will attempt to do as little work as possible because they view the course as a barrier rather than an opportunity. She wants the experience to be more than that. The new semester begins in

two weeks, and Professor I is seeking advice. What recommendations might you suggest that could help her increase the level of student motivation?

Think About It. Years ago, I wrote a free online book of teaching tips. Through a series of fortunate events, it became the subject of a lengthy review in *The Chronicle of Higher Education* ("Finding a Light," James M. Lang, September 21, 2007). The reviewer was extremely kind. For a month or so following publication of this article, a string of emails hit my in-box from professors (and even a college president or two) at schools around the world. Those messages provided me with a wide variety of interesting questions and observations about teaching. I loved the exchanges. It was a wonderful period of give and take.

Toward the end of this brief cycle, an email arrived from a teacher in England. Unfortunately, both the note and the identity of the writer have long since vanished from my computer. All traces are gone but the memory remains very much alive. The now anonymous correspondent speculated, "Having read your teaching tips book, here is a quotation I think you will appreciate."

> Great teaching is not based on the number of years you do it. Great teaching is based on the amount of time you spend thinking about it.

For me, those words were an epiphany. Even now, the revelation could not be more insightful. It unlocks a true secret for success in this profession. Teachers never grow better purely by surviving the passage of time. Teaching is not like some fine wines that improve naturally year by year. As I have already indicated, thinking is essential for teaching greatness. It and ambition are necessary prerequisites to kickstart the Three E's: experimentation, evaluation, and evolution. That logical progression can generate teaching ideas that will help you meet the goal of an annual 5 percent improvement rate in your Rube Goldberg Learning Process.

Sports fan will know the names Belichick, Popovich, Krzyzewski, Saban, Summit, Lombardi, and Auriemma. In football and basketball, they rank among the best coaches of all time. Their teams did not win every championship, but these individuals outperformed virtually all other coaches of their era. Each established a standard of excellence that is truly remarkable.

Ask any sports fan one simple question, "How much time do you believe Bill Belichick, Gregg Popovich, Mike Krzyzewski, Nick Saban, Pat Summit, Vince Lombardi, and Geno Auriemma spent thinking about their teams as they prepared for each new season and each new game?" The question is silly. The answer is obvious. The response will be quick and assured. "Those coaches are some of the best ever. That level of success does not happen by accident. They probably thought about their players, their practices, their strategy, and their games almost nonstop especially during the season when the teams played. I suspect they scrutinized every aspect of each upcoming game and spent hours imagining how even the smallest detail might be improved. Winning has been their passion, one that must surely run deep. No one becomes great without that mental discipline. Consistent excellence cannot be based on good luck."

Is what such coaches do for a living any more important than what you or any other teacher does for a living? Is winning a game worthy of more thought than helping scores of students learn the topical material in your class and develop their critical thinking skills? Do we underperform as teachers because we fail to acknowledge the true importance of our role?

Not surprisingly, successful people exhibit characteristics that can be instructive. Winning coaches think obsessively about their teams and develop outstanding programs. I doubt anyone believes that is a coincidence. If you want to achieve 5 percent annual improvement and move toward greatness, spend as much time thinking about your classes and students as Bill Belichick or Lou Saban think about football. That is not hyperbole. It is virtually a guarantee. Time, work, and effort are necessary but serious thinking is always the step that provides guidance and ignites progress. Ignore that fact and we are back to searching for magic pills.

Getting into the Hearts of Students. Recognizing the importance of our job leads to an obvious question. What aspect of teaching should we think about first? Where is a logical place to begin? When possible, I like to learn from my students. During most semesters, I ask them to tell me about their best college teacher. (To avoid putting them in an awkward position, they cannot pick me. However, in the midst of a trying and turbulent semester, I am not a likely candidate.) They must justify their choice in a paragraph or two by describing the characteristics that make this one person so special. I provide no further guidance.

The assignment might seem odd for an accounting course, but most of my students are destined to hold leadership positions not too many years after graduation. I want them to begin preparing for this eventuality by identifying the attributes they appreciate in outstanding leaders. Many college students have spent the majority of their lives in school. For them, teachers provide the most pertinent examples of leadership. Semester after semester, teachers guide scores, if not hundreds, of individuals through complicated and sometimes frustrating learning experiences. Whether successful or not, this is leadership. As my students describe their best teachers, they identify the personal leadership characteristics they perceive as working most effectively. My hope is that the students will carry these observations forward as they transition into their own leadership positions in the years to come.

A few semesters ago, in response to this assignment, one student wrote a wonderfully articulate description of great teaching.

> Any teacher with a degree can teach, but it takes a great teacher to get into the hearts of his or her students and motivate them. Great teachers inspire their students to do great things.

My students often express similar sentiments but few are so eloquent. Because this student's vision is compelling, I want to start by thinking about motivation. How does a teacher get into the hearts of students? Without that connection, high-quality education is a difficult dream. I suspect most winning coaches would agree. How can teachers inspire students in such a

personal way, so that those students are willing to do the quality and quantity of work necessary for success? Arrive at a satisfactory answer and great teaching becomes a more likely outcome.

Two Types of Motivation. "Motivation" seems to be an overused term with different meanings for different people. In an educational context, what does motivation involve? How can teachers successfully communicate motivational messages to their students?

In managing a college class, I believe that two distinct types of motivation exist. If an entire class or a few specific individuals require an immediate jolt, teachers likely rely on short-term motivation. Perhaps the students have grown complacent or distracted. Enthusiasm has waned causing the quality of work to deteriorate. Years ago, a favorite undergraduate student (who now holds a Ph.D. and teaches at a major university) told me, "College students are extremely busy people. If an assignment is not on fire, we always have many other things to do that are more urgent." Her words were an important lesson for me. After that, I worked harder to make sure my class and its requirements stayed high on every student's priority list. I inject a sense of urgency into class if I sense the energy level is low. Students are human and need an extra push on occasion. A straightforward email can produce wonders. "The work in class today was poor. I was prepared but many of you were not. I will expect better from you at our next session."

Long-term motivation is different and more important. The goal is to generate a consistently strong effort from each student, a high level of emotional involvement for the entire semester. The effects of long-term motivation can be seen if students become convinced of the benefit of the course and its topical coverage. Students complete their assignments, not just for one class or the next but every day. As the value of the subject grows more evident, a sense of excitement permeates the learning process. That is long-term motivation. It has nothing to do with a sense of urgency. Instead, the teacher's actions create a positive mindset that runs from the opening session through the final examination. Students do the work, not solely for a grade but also because they realize the importance of the knowledge. They understand how the course makes them better. I frequently tell my students, "The more you know, the more the world opens up to you." Persuading students of the validity of this assertion is an important step in long-term motivation.

When seeking to motivate a class, many teachers focus on the short-term. If students become lackadaisical, these teachers take action to stimulate a boost in energy. They add a quiz, participation grade, group project, graded homework, or the like. Short-term motivation often takes the form of either a bribe or a threat ("If you do this, I will add extra points." "If you don't do this, I will subtract points."). I apply such measures myself if I am unhappy with class effort and see no viable alternative. Nevertheless, I prefer to avoid the use of short-term tactics. They are temporary solutions, mere Band Aids. For me, long-term motivation should be a much more compelling approach for teachers. It provides students with a justification for the effort required. When successful, students often remain interested in the subject well after the semester has concluded. If long-term motivation is effective, short-term motivation is rarely required.

The Importance of Student Faith. No single approach to long-term motivation is perfect for everyone. Effective teachers come in all types and varieties. Some motivate with carrots. Others use sticks. Years ago, Kathleen McKinney's quote from an award-winning teacher made a lasting impression on me. "Any teaching style can work if the teacher is truly involved and sincerely interested in his or her students" ("FACES: Five Components of Quality Teaching," *Teaching Sociology*, July 1988). With those words in mind, you should seek out your own preferred strategies.

Although teaching techniques might vary, I believe the word "faith" provides the key to unlock the secret of long-term motivation. Classroom success will be elusive unless students have sufficient faith in their teacher. No one wants to waste time navigating a disorganized program where the benefits are uncertain. As scholars of military history can attest, few soldiers are enthusiastic about charging into battle if they do not possess absolute faith in their commander. College students are no different. Approach each new semester like a general readying an army for war. Work to win their faith.

I have developed an unproven hypothesis about the importance of student faith. Try an experiment to see if you can substantiate my assumption. First, create a list of teachers who qualify as great based on any reasonable standard. Ken Bain identified a number of candidates for this designation in preparing to write *What the Best College Teachers Do*. Think of the best teachers you have known. Second, study these individuals and their teaching styles in as many ways as possible. Analyze everything. Almost inevitably, they will exhibit a wide variety of methodologies. Different people teach differently. Nevertheless, I believe at least one universal trait will surface. Students will express an almost fanatical faith in their most talented teachers. In successful classes, students become convinced that they can learn even the most complicated material by complying with their teacher's directions. This level of faith provides the long-term motivation that drives students to outstanding efforts. A good example is shown in the movie *Stand and Deliver* that I mentioned earlier.

In my opinion, one question could replace many, if not most, of the queries on typical student evaluations. "How much faith have you come to have in your teacher?" Those student responses would be truly insightful.

As teachers develop their Rube Goldberg Learning Process, the Education Diamond creates the skeletal structure that serves as the foundational basis. At the same time, the long-term motivational techniques that establish the students' faith in their teacher serves as the heart of the system. This faith pumps energy throughout the entire class to keep the learning process running efficiently.

When teachers discuss their craft, they often talk about essential points such as the importance of boosting student self-confidence, providing an organized and logical structure for effective learning, and helping students recognize and understand key connections. These examples are

merely a few of the many individual characteristics of education at its best. Developing student faith is more holistic. It involves the entire course from the first day to the last as the teacher works to create a trusting relationship with every student. Whether class size is 5 or 500, the eventual manifestation of this faith is the students' response to an unspoken offer from the teacher. "I will show you how to develop your mental faculties to achieve success in this course and become a better, more knowledgeable person, but you must be willing to believe in me so that you will do what I ask." When considering how classes become successful, I cannot overstate the importance of this covenant between the teacher and the students.

Basic Beliefs within Student Faith. For me, three beliefs form the foundation of the students' faith in their teacher, a faith that provides them with the long-term motivation to learn. The actual tactics used to lead students to these beliefs depend on the professor's style. In my opinion, a teacher can be successful by dressing up in a chicken suit and singing an aria from *La Bohème* but only if the students have sufficient faith in all three of these tenets.

BASIC BELIEFS THAT CREATE STUDENT FAITH IN A TEACHER

AND LEAD TO LONG-TERM MOTIVATION

(1) Students trust the logic of the course's organization and the teacher's ability to achieve its stated goals.

(2) Students trust that the benefits of learning the material will be both significant and attainable.

(3) Students trust that the grading will be fair.

When each of these beliefs is present, most students will do a reasonable amount of serious work. Over time, their confidence will begin to escalate as they grow more comfortable with the material. That drives an even greater effort. Gradually over weeks and months, their knowledge becomes mature and impressive. As I tend to repeat often, successful learning breeds more success. However, if even one of these beliefs is missing, student effort suffers. In response, teachers often fall back on short-term motivation techniques, more bribes and threats. If class performance is not as anticipated, consider whether your students hold doubts about any of these basic beliefs. That point is where remediation should start.

A cartoon taped to my office door shows a college student asking his professor, "When do you teach us how to become motivated?" No teacher needs to play the role of cheerleader or drill sergeant to motivate students. That is not a job requirement. Motivation is not a distinct part of the curriculum like reading and mathematics. It occurs naturally when a student (1) trusts the logic of the course's organization and the teacher's ability to achieve stated course goals, (2) trusts the benefits of learning are both significant and attainable, and (3) trusts the grading will be fair. The resulting faith in the teacher ignites interest in the course and its contents. This

interest drives better student effort. Develop faith and student work will follow. That is long-term motivation at its best.

Every new group of students walks into class on the first day with a skeptical attitude. Never underestimate that invisible barrier. Many, if not most, have already experienced too much mediocre education. Members of your previous classes have graduated or moved to other courses. Their feelings, no matter how positive, do not roll over automatically to the next batch of students. Whether this year is your first or 53rd, students must be convinced anew of the validity of the three basic beliefs. No teacher can rest on past accomplishments, no matter how outstanding.

A few years ago, I presented a teaching program in Kentucky. At the end of the day, one of the participants drove me back to the airport. Along the way, we had a delightful conversation about college teaching. He provided me with an insightful comment from Zig Ziglar, the legendary motivational speaker. "There is no such thing as a lazy person; he is either sick or uninspired."

Many teachers will undoubtedly disagree with Ziglar's assertion. Every class has its share of students who appear to be incredibly lazy. Having to deal with such apathetic individuals is an occupational hazard. They can be frustrating but are impossible to avoid. They have driven many dedicated professors into retirement. Teachers often write off such misfits as a waste of limited time in a version of what is commonly known as the nonaggression pact. "I will not bother you if you will not bother me." These teachers focus on other students who appear to have more ambition and a genuine desire to learn.

According to Zig Ziglar, lazy students are not bad people who deserve to be outcasts. They need more, or possibly different, inspiration. Never forget that anyone can teach a brilliant student who is highly motivated and has an adequate support team. That is not a challenge. It is fun. I love to take credit for the accomplishments of outstanding graduates, but I well know that such talented people were destined to succeed without my assistance. Any value I added was small, possibly nonexistent. We change lives and earn our paycheck by helping the rest of the students, especially the troubled and the needy. Great teachers relish stories of students pulled back from the brink of disaster.

Uninspired students sometimes react positively to short-term motivation. Threats can work. "I am going to fail you if you do not write a good paper" might lead to an improved result. Unfortunately, this approach addresses only the symptom and not the problem. The benefit is not likely to extend beyond the current assignment. Situations can be complicated, but these students probably lack one or more of the three basic beliefs. Address that issue and their future in your class might improve rather dramatically.

How does a teacher go about encouraging the growth of these three beliefs that serve as the basis for student faith? That question is at the absolute heart of great teaching.

Good Communications Are Essential. Like a good marriage, a strong relationship between teachers and students starts with the establishment of open, frequent, and clear lines of

communication. Students cannot read the teacher's mind even if the intentions seem obvious. Faith develops slowly through the messages conveyed between the parties. No motivational technique works well without good communications.

For the first 20-25 years of my teaching career, I had no effective way to communicate with students beyond the 150 minutes each week when I stood before them in class. Time was tight. Any discussion about topics other than the subject matter was often limited to a sentence or two at the start of class. I left the room each day feeling like I had more to discuss. Then, email came into common usage and my potential as a teacher increased immediately. I was thrilled. Email expands possible weekly interactions from 150 minutes to 168 hours. Students and I can exchange information at 3 a.m. on Saturday night or 15 minutes before class on Monday morning. With modern technology, other means of communication such as social media apps are now available, but email still works for me.

My correspondence starts several months before the first class and extends through the final examination (and often beyond). These communications are never random. They are always created for a specific purpose.

- First, I am trying to get a head start on establishing the three basic beliefs. Through these messages, I hope the students will begin to develop faith in my teaching as well as the structure of the course and its grading system. By the start of the semester, I would love for every student to already have a sense of the importance of the material and their ability to be successful learners. I use emails to generate interest, enthusiasm, and confidence in advance of class. Do that, and every session can be great.
- Second, communications during the semester should help students stay focused on the current topical coverage and the strategies they can use to maximize learning. Every teacher must wage a battle against distraction and procrastination. In that fight, email provides an effective method to deliver tips, warnings, suggestions, information, ideas, and the like to keep students engaged.

Emails Prior to the Start of a Semester. At my university, students register for the coming semester several months in advance. Approximately one week after registration, I email the new students to welcome them and introduce myself briefly (an example of this email can be found in Appendix B). I describe the importance of the course coverage and explain why I believe they will find the topics interesting. I am cautious because a fine line exists between enthusiasm for a subject and appearing to be an "obsessed nerd." I explain my preference for email communications so the students will know that they need to pay attention to what I send. I promise not to forward cutesy cat photos, only information to help them learn and do well. Because communication is a two-way proposition, I urge them to write back or visit my office if they have questions, concerns, or suggestions. I want absolute clarity. College students face enough challenges without my class adding unnecessary confusion.

During the summer and winter breaks, I email my new students every few weeks. To me, that pace seems reasonable without being compulsive. Each note is short and to the point. What can I tell my enrolled students before I even meet them?

**I explain my intentions for the course. Students are the only direct beneficiaries of the coverage. I want to start "selling" those benefits early. I am a strong proponent of marketing the course to my students. Why should this material be of any interest or importance to them? Without an explanation of my vision, all required work can feel random. I also disclose test dates and the grading process. Every student is interested in the method used to determine grades.

**At each class session during the coming semester, my students will face a rather intense Socratic Method style. Some fear that approach because it is new to them and can seem intimidating. For many, the default position in class is to sit quietly and take notes. I explain my reason for using an active question-and-answer format and assure them that my approach should not seem scary but is actually a lot of fun. I want to start winning their trust. A few positive quotes from previous students can be soothing. ("I really enjoyed the way we walked step-by-step through each problem during class so that we all understood the eventual resolution." "I loved how the class questions helped us find the answers for ourselves.") Teachers have reasons for what they do. Students exert a better effort if they understand that rationale.

**As previously discussed, I teach by presenting odd puzzles that students must analyze and solve. Introducing material in this way draws student attention to key variables and helps develop their critical thinking skills. In addition, they find this technique naturally appealing. Puzzles are fun. In an email prior to the first class, I include a short example or two and describe how each puzzle is resolved. I am starting to model the actions that I want students to be able to accomplish by themselves by the end of the semester.

**Students often excuse a lack of effort by rationalizing, "No one really cares about this stuff outside of a college classroom." Consequently, whenever possible, I link the subject matter to an element of the real world. Teachers can scan magazines, newspapers, and the internet for relevant items. Events pop up frequently that relate to course coverage. National Public Radio is a great source for stories that tie in with class material. I have begun scores of student emails, "I heard an interview on NPR this afternoon concerning one of the topics we will cover during the coming semester." I also provide students with a list of newsletters and other sources they can peruse over the break to become better acquainted with course issues that appear regularly in daily life. Never let students believe that the material being covered is only important within the classroom.

**Although I have the pleasure of working with intelligent college students, many are young and frequently have developmental shortcomings in analyzing complex material. As I have discussed, some have managed to be successful students by relying on memorization and see no reason to walk away from a winning strategy. Where possible during the break, I begin to introduce alternative learning techniques. I am planting the seed that deeper thinking might be necessary for continued academic success. I prefer not to wait until after a poor first test to suggest that high school study habits need upgrading. At the same time, I want students to know that they are not in this journey

alone. College is supposed to be challenging, but I am here to help. I often compare education to a dance like the waltz or the tango where two people work together in harmony to create a lovely outcome. I want that same type of classroom success for every student. I promise to do my half of the work. If they do their half, the learning experience should be outstanding. However, I will not do their half. I make that clear. That is their responsibility. Students need to know that I am their teacher while understanding that I am not Santa Claus.

Emails During the Semester. After the class officially begins, I email students 3 to 7 times most weeks. These notes typically focus on either getting them ready for our next class or helping them organize and understand the coverage in our previous class.

**Prior to class. Students learn better if they walk into class with a strong knowledge of the key issues to be covered. Although this assertion is hardly revolutionary, student preparation often ranges from poor to nonexistent, a tendency that imperils successful learning. Most students have good intentions, but the power of procrastination is a tough adversary to overcome. Therefore, before many classes, I email my students with a quick reminder of what I expect from them. "Tomorrow, as mentioned in your assignment sheet, we will analyze the first 8 pages of Chapter 13. As you prepare for the class discussion, pay attention to the definition on the third page and the accompanying illustration. How does this example differ from what we learned in Chapter 12? Can the definition here be used to solve the problems we encountered last week?" This short note takes only a moment to create and does not do any work for the students. Instead, my prodding encourages better readiness, and that should improve student engagement and understanding. I point out key areas in the material and suggest, "Look closely at this particular section." I am nudging them to be prepared.

**Review of coverage. In every class meeting, discussions cover scores of complicated ideas, theories, rules, and opinions. Conversations bounce around like ping-pong balls. To the teacher, every word probably sounds logical, but, for students, topics frequently seem jumbled together in a disheveled mess like a badly played game of Tetris. During the rush of class, students struggle to form a mental picture of the overall coverage. As class speeds along, both key elements and small nuances can be overlooked. If I suspect problems, I email students soon after class to reiterate the most important points of the day. I want to make sure they do not miss any of the elephants hidden in the picture. "We had an excellent class today. By the end, we had identified four major themes. Make sure you understand the reason that each of these four is relevant to our understanding. You should be able to provide at least two characteristics that fall under each." Repetition and clarification are always helpful for student learning. In addition, if justified, the teacher can take the opportunity to provide a bit of positive reinforcement. Everyone benefits from a pat on the back now and then. Many students receive only a paltry amount of encouragement during a long semester. They may have a surprising thirst for a little praise.

I have no interest in wasting student time. Although I correspond with my students frequently, each message has a definite purpose. Clear communication, in whatever form, is necessary to ensure that students develop faith in you and the course you have constructed. This faith creates the long-term motivation that drives an outstanding effort throughout the semester. In simple terms, the students are willing to do what you ask of them because they trust you. That provides the heart for your Rube Goldberg Learning Process. It is essential for great learning.

A Motivational Personality. One attribute that needs to come through in all communications as well as in the daily management of the class is the personality you project to the students. This personality tells the students who you are as a teacher and the relationship you want to establish with them. Two teachers can send out dozens of similar notes and still appear to have radically different personalities from friendly to stern, from casual to demanding.

As a student, I was never fond of professors whose personalities fluctuated wildly from class to class. I did not appreciate teachers who showed up as Dr. Jekyll one day and Mr. Hyde the next. Inconsistency confuses students and keeps them in a state of apprehension. A Dr. Jekyll teaching style will work. A Mr. Hyde teaching style will work. Students are able of adapt to almost any teacher who creates faith through the three basic beliefs. However, a teacher who moves back and forth between Dr. Jekyll and Mr. Hyde in some inexplicable alternating pattern is destined for problems. Students arrive at class not knowing who to expect or how to react. That confusion leads to distrust.

When I first began teaching, I attempted to design a personality model for myself as a basis for interacting with students. I wanted to establish a consistent behavior pattern to guide my actions. If successful, students could anticipate my reaction to any situation. If questions arose about issues such as delaying an examination or a class absence, I wanted to be able to ask, "How do you think I am going to respond to that request?" and receive a reasonable response. I liked that idea 52 years ago. I like it today.

Based on my own student experiences, I outlined two personality styles that seemed likely to motivate students to do the work necessary for success. One was a football coach teacher. The other was a scout leader teacher. I have been neither a football coach nor a scout leader so my descriptions might be mere stereotypes, but I needed a way to identify and prioritize the motivational techniques that I had observed in my own teachers.

According to my thinking, a football coach teacher espouses a philosophy best exemplified in these hypothetical opening remarks to a class.

> The goal for this class is to learn the assigned material. I am responsible for your education so I will make sure you learn. I want everyone in this room to succeed. Learning is so important that failure is not an option. I will tell everyone exactly what work to do and expect each of you to follow my instructions precisely. Every step is essential to create an excellent outcome. We are aiming for great results. If you remain in this class, I will make you and everyone else into successful students.

Here, the primary responsibility for educational success lies with the teacher. A football coach teacher focuses on the group as a whole and less on individual students. When successful, the class operates like a well-practiced orchestra. The only student decision is whether to enroll in the course. Rules are essential to keep all students moving efficiently toward the desired outcome. The teacher maintains unquestioned authority and drives the class to achieve a collective victory, normally a specific learning goal set by the teacher. A football coach teacher judges success on the results achieved by the entire class. I have known many great teachers who clearly had a football coach personality. I imagine you have as well.

In my mind, a scout leader teacher exhibits a motivational style that varies significantly from that used by a football coach teacher. It is not a better or worse approach, just different. Introductory remarks delivered by a scout leader teacher might sound as follows.

> This is your education. You are in charge of what you learn. I am here to guide you, but learning is your responsibility. I plan to show you what to do and why the knowledge is important. I will encourage you and try to coax the best out of you. Nevertheless, the choice to do the work is up to you. I am always available to assist. Set a goal for yourself and I will help you achieve it. I can show you how to be successful but, after that, you should decide whether you want to do the necessary work. You are an adult. It is time for you to take charge of your own actions.

When a teacher adopts a scout leader mentality, the focus is on the individual. In this class, responsibility lies with the student. The teacher views each student as a unique person who will succeed or fail independently of the group. Different students can achieve different types of success. Some of the best teachers I have ever witnessed followed a scout leader approach. Words such as “assist” and “encourage” are central rather than “push” and “win.” In describing a scout leader teacher, students often use terms like “helpful,” “caring,” and “empathic,” whereas they label football coach teachers as “driven,” “demanding,” and “successful.” Scout leader teachers tend to be beloved, whereas students more often express deep admiration for football coach teachers.

If a student strolls into class ten minutes late, are you upset because a rule has been broken indicating to the group that the rule might not have any real significance? That response sounds like the reaction of a football coach teacher. If a student strolls into class ten minutes late, are you upset because that action keeps the student from achieving a professed personal objective? That seems more like a scout leader teacher.

Both styles can be effective. In my mind, neither is superior. For a teacher, the question is personal, not theoretical. Which motivational style best suits your philosophy when interacting with students? Not enough teachers consider this question and its implications. Instead, they act on instinct, which often makes them seem inconsistent. The style you adopt has a direct

influence on the type of messages communicated to students, the development of student faith, and the long-term motivation of your class.

When leading faculty presentations, I sometimes list characteristics of both a football coach teacher and a scout leader teacher. Participants seem to recognize the two styles without hesitation. I then ask them to select the personality model that most closely aligns with their teaching. Self-reflection can always be helpful. Replies are insightful and heartfelt as people around the room explain the connection they prefer to establish with their students.

At these programs, from my experience, approximately half the audience members recognize themselves as football coach teachers, and the other half acknowledge being scout leader teachers. Many are adamant about who they are and proud of the role they have chosen to play.

> "I have taught for years. My students learn effectively because I tell them what to do and then push them along until they succeed. They respect me for how much I help them accomplish. If I did not prod them, many would never do anything."
>
> "Education puts enough pressure on students. I watch for any who seem to be struggling. When that happens, I call them into my office for counseling so we can talk about what they would like to accomplish. I want them to identify the actions they need to take to achieve their goals. I help my students determine what is best for each of them."

A Hybrid Personality. For decades, I studied both motivational models trying to identify the personality that was likely to bring out the best in my teaching. I invented the concept and discussed it often but could not decide whether I was a football coach teacher or a scout leader teacher. My perceptions of myself wavered based on the circumstances. I feared that I was vacillating between Dr. Jekyll and Mr. Hyde. My consternation reminded me of the term "doublethink" from George Orwell's classic novel *1984*. In that book, doublethink describes the ability of a person to hold two contradictory ideas simultaneously while believing both to be true. I wanted to be a football coach teacher, and I wanted to be a scout leader teacher.

After years of consideration, my thinking has evolved. I now believe in a hybrid model. That description works best for me. Creating only two options is too simplistic for such a complicated question. Now, based on my observations, I assume the role of a football coach teacher when working with the class. I create specific rules and push everyone forward at a fast pace. The football coach side of my personality is obvious early in the semester as I challenge the group to get off to a strong start and not fall behind. I feel every student needs to benefit from the steps of my Rube Goldberg Learning Process so they can successfully learn the material.

Nevertheless, I morph into a scout leader when dealing with individual students. They are all unique. No single approach works perfectly for everyone. My rules are not absolute. I try to be flexible and adapt my interactions to meet the personal needs of each student. This strategy becomes especially evident as the semester progresses, and I learn more about the human beings

sitting in front of me. I might need to motivate John and Mary in two entirely different ways. At least a few times each semester, I explain to the class, "Here is one of my rules. I expect everyone to follow it. However, if this rule causes you a problem, come by my office and tell me your story and I will consider your case. I might not change my mind, but I will listen." That openness reflects a scout leader personality.

Does that suggest I am wishy-washy? I might have feared that type of self-incrimination decades ago but not now. I have arrived at a motivational personality that works for me, football coach teacher with the group especially early in the semester and scout leader teacher with each individual as the semester progresses. It helps define who I want to be as a teacher and provides a consistent model for my actions. That awareness is helpful for my students and for me. It is neither good nor bad but merely a style that seems to work. Are you a drill sergeant or Mother Teresa? Are you an entertainer or an inspirational leader? The more you look back at your own teachers and determine what behavior you preferred, the quicker you will form a choice of your own. Like me, a final description might take years, but your students will appreciate a clear and consistent version of the teacher you want to be.

Great teaching is never the result of random actions. Too often in assessing classroom success, we fail to appreciate the ingenuity of the learning process that great teachers develop over decades on the job. Those systems have been built to address many essential questions. Do students have sufficient faith in you so that they will follow your guidance? Do they trust in your ability to achieve your class goals? Do they believe the subject matter is worthy of their time and efforts? Do they believe grading will be fair? How do you go about communicating with students so they will come to understand your system and have faith in you as their teacher? Are you a football coach teacher, a scout leader teacher, or some form of hybrid? The road to an annual 5 percent improvement rate is littered with quite a number of probing questions.

LESSON SEVEN

AN EMAIL TO MY STUDENTS AT THE END OF THE SEMESTER

WHAT WAS MY PRIMARY GOAL FOR YOU?

As mentioned previously, I have always been somewhat frustrated by student evaluations both at my current school and at the universities where I previously worked. The standard questions never told me what I wanted to know. Beneficial information was elusive. Students who liked me tended to give 4's and 5's regardless of the question. Students who did not like me were inclined to mark all 1's and 2's. What did that prove?

I had an urge to experiment and see what I might learn. This past semester, the administration here at the Robins School of Business allowed me to add a new open-ended question to my evaluation form, "What do you believe is the professor's primary goal for this class?" I felt that the students' feelings toward me were less likely to influence these responses. Perhaps, I could obtain a clearer picture of my class, both the successes and the failures.

As soon as the students had completed the evaluations, I emailed them the following message to explain what I had done and why. Transparency is always a good goal when working with students. I had three reasons in mind for creating this communication.

1—I wanted to make sure I could articulate my primary goal. Everyone claims to know what they want to accomplish, but is that true? After so many years of teaching, I did not want my purpose to be merely a vague notion floating around in my brain such as "smarter students" or "more active learners." Understanding a goal well enough to write it down helps ensure that you have arrived at the truth. If you have not tried this exercise recently, now might be a good time.

2—I wanted the students who were leaving my class to know what my primary goal had been for them. <u>They might have loved me, or they might have hated me, but they had a right to know what I was trying to accomplish.</u> They could decide for themselves how well we succeeded.

3—I wanted to be able to convey my primary goal to future classes. Emails can be saved and used more than once. Chances of achieving my objectives should improve if I let students know, in advance, what I want to accomplish.

Here is the note I sent to my students immediately following the last day of the semester. A few weeks later, I emailed approximately the same message to the students who had registered for my upcoming class. Everyone now knows what I want to accomplish. It is no secret.

**

To: My Students

From: JH

You recently completed the course evaluation for our class. Over the decades, I have pored over thousands of evaluations (many for me, some for others). As a result, I had come to believe that a specific piece of information that I personally wanted to gather from my students was not

available on the official form. Consequently, this semester I obtained the school's permission to make an addition.

For that reason, you were asked to respond to a question that did not appear on the evaluations for any other teacher. It was,

"What do you believe is the professor's primary goal for this class?"

In my mind, establishing clear communications between teachers and students is one of the necessary characteristics of a strong learning experience. If I failed this past semester in explaining to you what I was trying to accomplish, educational success would seem to be difficult if not impossible. We worked together for 14 weeks. Between three 50-minute class sessions each week and countless emails, you have heard me espouse many thoughts. What was my purpose in all of this? You must surely have garnered some opinion about the identity of my primary goal. I am always interested in student thoughts on the course evaluation form. I will be especially intrigued to read your answer to this extra query.

I will not be allowed to see your responses for several weeks. While I wait, I tried to decide what my primary goal was for your class. After so many years in the classroom, you would think I should be able to provide a solid answer without much thought. In truth, I have so many objectives for my students that I had to organize and prioritize the list to determine which were most important to me. Now that we have survived a challenging semester together, I thought you might be interested in my primary goal for the class. What was I trying to accomplish with all those strange questions and assignments?

Yesterday, a student emailed me and commented that the class had been a transformative experience. I like that. I want to make a real difference in the lives of each of my students. That is the essence of this job. If students are no different at the end of a semester than they were at the beginning, we wasted a lot of precious time. Those students should storm the administration building and demand a refund. Therefore, in thinking about this course, I start with the central question, <u>"What kind of student transformation was I trying to bring about during the past semester?"</u>

With that question in mind, here is what I identified as my primary goal for you (and every other student). It seems simple but is complex in many ways.

<u>Primary Goal.</u> When you finished this course, I wanted you to be tremendously proud of what you had accomplished. That was my primary goal for every student. Nothing would please me more.

Forget your grade. I do not care whether you earned an A+ or something less than an A+. I wanted you to work hard and feel proud of what you learned. As an example, this semester I

was extraordinarily proud of a student who made neither an A nor a B. Never fall into the trap of thinking that grades are the goal.

I hope you feel so proud of what you learned that it gives you a huge surge of confidence in your ability to go out and be a more successful learner in other classes and in life in general. If you achieved that level of pride and self-worth, then this class was transformational in a wonderful way. I wanted to help you believe in yourself. That is education at its best.

Facilitating Goals. However, a bit of thought will show that this primary goal is not possible to achieve directly. No teacher can walk into a classroom and say, "You should all be proud of yourself," and have that proclamation provide more than a slight boost to anyone's morale. Like a game of chess, successful learning is fascinatingly complicated.

For that reason, I have come to realize that I also needed three "facilitating goals." Those goals are necessary to help students achieve my primary goal. Facilitating goals are the building blocks that form the foundation for a successful educational experience.

1--My first facilitating goal is that I want to assist my students in developing their critical thinking skills. I usually define critical thinking as being able to take what you already know and use that knowledge to discover things you do not know. How can I help students improve their critical thinking? That question was close to the surface of each class session. Every assignment was created with critical thinking in mind. You are all bright people. I wanted this course to train you to use those mental talents well. If that happens, eventually you will no longer need to be dependent on teachers. Effective learning can be developed. Deeper learning is possible.

This course was never going to focus on memorizing and cramming. You must know that. Becoming efficient learners requires more complex skills. The developmental steps for that learning process were built into our daily assignments. Better critical thinking skills are vitally important because they have a positive effect on the rest of your life. That is a transformation worth working toward. If you discover how to learn better, you will be able to continue to grow in every future endeavor. Sadly, mediocre learning habits can hold people back for their entire lives. That is a warning you should seriously contemplate.

2—My second facilitating goal is more personal. During this past semester, I wanted you to grow to trust me. Only 2 of the 66 students had been in my class before this semester. The other 64 had no reason to trust me one iota. Months before the class began, I knew I had to work to gain that trust.

Over the past 14 weeks, I have asked you to spend hours upon hours on assignments. I have pushed you to prepare and practice every day. I have challenged you to think deeply and analyze complicated situations and problems. I have cold-called on you several times during every class session and expected an immediate, thoughtful response. Students will resist doing that much work if they have not developed faith in the teacher. You have been in school for much of your

life. I hope you have had many teachers whom you trusted so much that if they asked you to do an assignment you would comply without hesitancy. In those classes, I suspect you tackled complex problems enthusiastically with nothing more than the belief that it would be a beneficial experience.

At every step along the way, I have tried to explain the work I needed from you and why. "Here is what I want you to do for our next class and here is the benefit." With sufficient student faith, a class can practically create miracles. Education does not get better than that.

Without faith, students will try to defer or shortcut every assignment. That is human nature. I am always impressed when students do better on our second test than on the first. I think, in part, that is a sign that they have begun to trust me and have started viewing the assignments as worth the suggested effort.

3—The third facilitating goal is my favorite. During the semester, I wanted you to enjoy learning the subject matter, not occasionally but every day. I am not sure what happens to students during their years in school, but too many seem to believe that education is dull and boring. Learning can be (and should be) fabulous fun. It should be like a crystal ball that gradually opens our eyes to the wonders of the world around us. That potential enlightenment is one of the main reasons people should attend college. I hope every student views attaining an education as a joyous, mind-expanding experience.

Nothing ever made me happier this semester than when I walked into the classroom 10-15 minutes before class and discover a group of students standing around discussing the assignment for that day rather than burying their noses in cell phones. Those conversations did not seem to be from a sense of dread but rather a genuine interest in figuring out viable solutions. I always tell people that I teach using puzzles because puzzles are fun. That was how I wanted you to view my class. "It was demanding but it was a learning experience that was always enjoyable."

If you walked into my office during the past semester and said something like, "We have this problem assigned for our next class and my friends and I have tried to figure it out using several different strategies, but it is tricky. Can you give me a hint so that I can try to work it out for myself?" you will never understand how delighted your question made me. After you left my office, I probably hopped up and danced around the room.

Students will occasionally tell me that they will miss the class when it is finished. It is not me that they will miss but rather the joy of learning to solve those puzzles in an effective manner.

In summary, although you likely provided a different response than I did on the course evaluation, here are my goals for our class.

Primary goal: That you are extremely proud of what you accomplished this semester, and you use that confidence as a springboard to be a more successful learner going forward.

Facilitating goals:

1 – That you have become a more effective critical thinker. Consequently, in the future, you will be able to learn more and understand it more deeply. Better learning skills will go with you throughout life. They can be truly transformational.

2 – That you came to trust the teacher. I realize that students do not want to do difficult work if they do not have faith in the person providing the orders. If you did not do as well this semester as you would have liked, it might be that you never trusted me enough to do what I suggested. If that is the case, I deeply apologize.

3 – That you came to enjoy the class and the learning process so much that you looked forward to each new session with anticipation rather than dread. I believe to the bottom of my toes that learning should be enjoyable. You should always experience a marvelous thrill as you put those puzzle pieces together. In education, nothing is more exhilarating than those "Ah-Ha!" moments. I hope I was able to convey that sense of wonder and joy to you this semester.

I look forward in a few weeks to reading my course evaluations.

LESSON EIGHT

TEACHING LIST NUMBER TWO

SPOTTING GREATNESS

WHAT ARE FOUR CHARACTERISTICS OF A GREAT TEACHER?

The September 6-7, 2014, edition of the *Wall Street Journal* contains an insightful article, "Four Ways to Spot a Great Teacher." Find an online copy and read it. Here are highlights to whet your appetite. The author (Dana Goldstein) talks about the importance of teaching and how a parent (or, I suppose, another teacher) can recognize greatness. Her four keys are in bold along with my observations.

Great teachers: Have active intellectual lives outside their classrooms. Most college websites inform visitors that a primary purpose of the school's offerings is to enable students to have thoughtful, productive, and well-rounded lives. Hence, students are not allowed to study only topics such as psychology, economics, or biology even if that is what they desperately want. Students should be exposed to a broad array of disciplines during their college experience. A happy, satisfied, meaningful life is more likely if a person attains an appreciation for many educational areas: art, theatre, politics, literature,

religion, science, history, math, and the like. This desired breadth of knowledge is the reason colleges have general education requirements.

Students should expect to discover the same intellectual curiosity in their teachers. Why is literature viewed as essential if professors do not show an interest in reading? Why require theatre or art courses if we do not demonstrate a genuine appreciation? When my wife and I go to plays or exhibitions on campus or around our city, I am thrilled to see students. I am also delighted to encounter my fellow faculty members.

Let students know that you have an intellectual life outside of your discipline. In the *Wall Street Journal* article, I particularly liked a wonderful historical observation. "In 1903, W.E.B. Du Bois, who once taught in a one-room schoolhouse in rural Tennessee wrote that teachers must 'be broad-minded, cultured men and women' able to 'scatter civilization' among the next generation." That is a teaching goal well worth emulating.

Great teachers: Believe intelligence is achievable, not inborn. I tell my students openly and often that I have a goal for them that goes well beyond the understanding of my subject matter. I want them to become smarter. If teachers challenge their students and guide them in solving complex puzzles, problems, experiments, and the like, their critical thinking skills will grow naturally. They become brighter people. I do not expect to create modern-day versions of Albert Einstein or Sherlock Holmes, but I believe that turning lazy thinking into critical thinking makes students smarter. That, for me, is a truly aspirational goal for my classes.

Great teachers: Are data-driven. Occasionally, teachers tell me that they are attempting an innovative experiment in one of their classes. I naturally ask, "Well, is it working?" Often, the innocent response is, "I just have the feeling that it is."

Hmm. I understand that many teachers have a strong and accurate intuition about what works in class and what does not. Nevertheless, I hate to leave important assessments totally up to personal feelings. We live in an era of incredible technology which allows us to analysis "big data" in countless ways. Intuition is rarely the only means of evaluation. Evidence is frequently available to help us judge educational progress especially for classroom experiments.

What data might I look at in assessing teaching effectiveness?

--I have long said that I do not obsess about course evaluations. That is not entirely true as I explained in the previous lesson. Beyond that discussion of my primary goal for the semester, I closely monitor the results of one specific student assessment that appears on our evaluation forms.

The course required you to think critically.

We can debate whether college students are wise enough to make a valid judgment about such a complex criterion. Nevertheless, by the time they arrive in my class, most have attended school for many years. Given their level of experience, "strongly agree" is

obviously a better result than "strongly disagree." If my Likert scale average on this statement drops from one semester to the next, I consider what might have caused the slide. In addition, I recommend that faculty measure changes in key responses each year to help ascertain whether they have achieved 5 percent improvement.

--Our students complete a questionnaire shortly before they graduate to provide information about their views of the education they received. My department also surveys recent alumni every 2-3 years to ask what part of the course coverage has proven especially beneficial to them since college. In both cases, I take a serious look at those responses. Although I can rationalize away any problems that might appear, I hope I never resort to ignoring disappointing results. I do not want to become a delusional teacher. Where weaknesses are noted, I consider what part of my Rube Goldberg Learning Process might need attention. Any course that does not seem to require periodic adjustments should raise the teacher's skepticism.

--If data is not otherwise available, create your own survey of former students a year or so after they leave your class. By then, they should have a better vantage point to judge what you were trying to accomplish. If you retain email or postal addresses (or have a large following on LinkedIn), send out questions and ask for replies (anonymously, if possible). I have a favorite question to elicit worthwhile feedback,

> Assume a close friend of yours is thinking of signing up for my class. The friend comes to you and asks for advice on whether to enroll. The friend is bright and hard-working, a student who wants to learn but occasionally needs assistance. Provide a few sentences that you would communicate to the friend to help in making this decision. Please be serious and honest with your replies.

If enough students respond, you can use the data to draw reasonable conclusions about perceived benefits and concerns. Those results can provide a relatively honest look at your class through the eyes of former students.

Great teachers: Ask great questions. From the lessons throughout this book, you already know of my obsession with asking questions in class using a version of the Socratic Method. I am biased but I believe great classes are most often built around the teacher's ability to craft questions that will puzzle students.

A few weeks ago, I spent several minutes in class demonstrating how a particularly unusual problem could be resolved in a logical way. I explained each step carefully to indicate what I was doing. After finishing with a flourish, I smiled sheepishly at the students and said "Okay, that is great, but the method just demonstrated is not considered appropriate. It is viewed as wrong. It seems logical, but it cannot be applied to solve this problem. Why is that?"

The members of the class spent the next few moments taking apart the approach I had created. Piece by piece, they studied what I had done. Eventually, they spotted the flaws, why my process was not allowed theoretically. They then reassembled the solution using their improved vision. By the end of class, they appeared to understand and seemed to

have had a good time. More importantly, I believed they had learned the concepts better than if I had described the correct path in the first place.

In my mind, carefully developed questions that ask for explanations like "How can we do this?" and "Why do we do that?" are fabulous as a basis for learning.

LESSON NINE

WE ALL NEED ROLE MODELS

WHO HAS INFLUENCED YOUR TEACHING?

> *Question.* *Professor J is coming to the end of a long and illustrious career as a professor after decades at a university where he garnered numerous teaching awards. Students continue to leave his class with a strong work ethic and a genuine understanding of complex material. The school newspaper assigns a reporter to interview him about his years in the classroom. Almost immediately, Professor J begins to talk about his first days as a teacher. "I was extremely fortunate. When I started teaching, I had no idea what I was doing. Luckily, I had a colleague who was a great teacher, and in so many ways, both large and small, she showed me how this job can be done properly." What kinds of advice and assistance might the older teacher have given Professor J early in his career that made such a difference?*

We Need to Learn from Others: Observation is an essential prerequisite for personal development in any field or endeavor. As a college teacher, pay attention to every person who can provide any insight into motivating and educating a group of students. Note the actions of your own teachers, other educators, and the students you interact with daily. Sit in on other classes and analyze each action almost minute by minute. Determine what appears to work well, what fails to work, and why. Identify the key steps in other professors' teaching so you can judge what might lend itself to experimentation and potential improvement for your students. What can you add to your Rube Goldberg Learning Process to make it better?

Mark Rothko was a celebrated artist who was active during the middle part of the 20th century. The National Gallery of Art in Washington, DC, provides this assessment of his influence (https://www.nga.gov/features/mark-rothko.html retrieved on August 4, 2023)

> One of the preeminent artists of his generation, Mark Rothko is closely identified with the New York school, a circle of painters that emerged during the 1940s as a new

> collective voice in American art. During a career that spanned five decades, he created a new and impassioned form of abstract painting.
>
> Rothko's work is characterized by rigorous attention to formal elements such as color, shape, balance, depth, composition, and scale; yet, he refused to consider his paintings solely in these terms. He explained: "It is a widely accepted notion among painters that it does not matter what one paints as long as it is well painted. This is the essence of academicism. There is no such thing as good painting about nothing."

In 2009, the play *Red* opened in London before moving to Broadway in New York City and then to playhouses throughout the United States. The action is set in Rothko's studio and consists of conversations between the artist and a young assistant. A few years ago, I attended an excellent local production. Although not a theater expert, I found the play funny, interesting, and insightful. The performance was a fascinating introduction to Rothko's ideas and personality. One short monologue truly caught my attention. The artist stands quietly and talks, almost to himself, about contemplating a Henri Matisse painting. Those few lines have reverberated inside my brain on so many occasions since that evening. Almost nothing in the past decade has affected my thinking more.

During this scene, Rothko describes the evolution of the unique style that made his paintings both famous and influential. At a critical juncture early in his artistic development, he discovered a work that truly intrigued him. It was Matisse's *The Red Studio* at the Museum of Modern Art in New York City. At first, the painting's stunning effect baffled him. Unlike most people, Rothko could not let go of the need to understand what he was seeing and feeling. How was Matisse able to produce such a powerful visual effect? What caused this particular mix of oil paints to be so mesmerizing?

Rothko apparently returned to the museum each day to stand in front of this one painting for hours, mentally analyzing Matisse's techniques and talent. He knew he was looking at a work of genius, but at first, he could not discern what elevated it to that extraordinary level. The daily pilgrimage continued until Rothko slowly unraveled the mystery to his satisfaction. He had a tenacious need to comprehend the effect, a personality characteristic that enabled him to grow artistically as he deciphered the secrets that made this painting such a brilliant work.

Rothko did not stare at the Matisse painting for five minutes and then mutter, "Wow, that is great," as he hurried on to admire the next masterpiece.

Rothko did not buy a book about Matisse and fall in line with the opinions of an unknown expert.

Rothko did not take a class on Matisse so that a teacher could explain various theories about the artist and his work.

Rothko did not search the internet to learn about Matisse and the meaning of his art.

No. Rothko stood there and studied *The Red Studio* obsessively, hour after hour, mentally figuring out for himself the wonder of its composition. The work inspired him so completely that he was unable to move forward until he grasped its essence. Only then could he assimilate those secrets into his own artistic talent. We can never implement what we do not understand.

Similar advice is widely credited to Pablo Picasso, "Good artists copy, great artists steal." Although my artistic abilities are limited, I suspect he means that great artists observe the work of others, determine how an extraordinary composition is created, comprehend what is particularly special, and then make that essential ingredient their own by extending and improving it. Great teachers should do the same.

How often do we witness a truly special accomplishment without taking time to analyze how the effect came to be? How often do we admire a result or action but never even attempt to understand its greatness? When I use terms like "analyze" and "understand," I am not referring to a superficial overview or a quick glance. I am describing the conscious deconstruction of a specific outcome, meticulously piece by piece, to determine its essential nature. What makes it a work of genius?

Have you ever considered what made your best teachers in college so great? What teaching techniques and philosophies did they employ and why did they work so well? Your teaching has undoubtedly been influenced by these people. Improvement is difficult if you do not take the time to learn how you managed to arrive at the present version of you. Who provided you with inspiration? What did those teachers do that made them so great?

Role Models Can Help. No one lives in a vacuum. The people we encounter in life affect us, a special few more than all others. Success is rare without guidance and support. Any teacher with a career that spans more than a few weeks likely owes a debt of gratitude to numerous individuals. In my case, that is certainly true. I could fill pages with name after name, saints who encouraged me to think more deeply about teaching and what I hoped to accomplish. During the past 52 years, scores of individuals have helped me come to appreciate the complexities of teaching and learning and to treasure the joy and wonder of my chosen profession. A conscious awareness of those influences is important because they have an outsized effect on our evolution. Follow the wrong guide and you might be unhappy with the ultimate destination.

Simply from a magnitude perspective, I owe a special word of appreciation to three people. Interestingly, the first two are fictional characters although in both cases based, I believe, on real professors. The third was very much a living force. In their own unique ways, each had a profound effect on my teaching, and hence, my professional life. If I have grown as a teacher over the years, they deserve a lot of the credit. A day never passes in the classroom when their inspiration is not evident.

Professor Charles Kingfield – In the 1973 movie, *The Paper Chase* (and a later television series of the same name), legendary actor John Houseman creates the role of Charles Kingsfield, a professor at one of the premier law schools in the United States. Although *The Paper Chase*

originated in 1971 as a novel by John Jay Osborn, Jr., fans are most likely to recall Houseman's portrayal of the stern Professor Kingsfield. His brilliant acting earned an Academy Award.

In both the movie and television show, Professor Kingsfield fascinated me. He is the epitome of a football coach teacher. Film clips of his classroom demeanor are readily available on the internet. Even after 50 years, I still love to watch. He is a blunt and severe taskmaster who has little patience with poor preparation and sloppy reasoning. A friend recently referred to Kingsfield as "sadistic," but that is not what I see. In class after class, he pushes students with carefully sequenced questions to achieve a genuine understanding of the nuances and subtleties of the law. His goals are clear and obvious. He challenges students to perform at the highest possible level and accepts nothing less than brilliant thinking. He is in charge. He is demanding. His classes achieve outstanding results.

I have always aspired to help students develop their critical thinking skills, an educational goal that, at times, seems like my quest for the Holy Grail. Through intense questioning, Professor Kingsfield succeeds by forcing students to go beyond the superficial and look deeply at every aspect of an issue to arrive at logical conclusions. His students eventually find answers but only with careful and thoughtful analysis. In one famous declamation, Kingsfield explains his teaching style quite succinctly.

> You teach yourselves the law, but I train your minds. You come in here with a skull full of mush; you leave thinking like a lawyer.

Popularity seems irrelevant to Professor Kingsfield. He is only interested in his students attaining a keen knowledge of the law and its legal precedents.

What I find most intriguing, though, is that Kingsfield's students respond to his questions by working long and hard to be obsessively prepared for each upcoming class. No one wants to walk in and not be ready for a serious discussion of complex material. Some hate him. Others love him. Nevertheless, through his persistent probing, they all gain an incredible understanding of the intricacies of the law. By the sheer force of his will, he pushes them to do great work.

Professor Kingsfield helped open my eyes to the level of learning that students can attain if they are motivated to do sufficient work before they arrive at class. I cannot begin to count the hours I have spent meditating on how to push, coax, trick, and encourage my students into expending the energy necessary to maximize their own learning. Much of this book comes from those meditations. I am indebted to Professor Kingsfield for making me aware of what one teacher can accomplish in one class period with just two things: prepared students and good questions. Nothing I have to say in this book is more fundamentally enlightening than the previous sentence. Any teacher can create magic with prepared students and good questions.

When, after 20 years as a lecture-based teacher, I switched to the Socratic Method in 1991, I told anyone who asked that I hoped to become a kinder, gentler version of Charles Kingsfield. He convinced me of the importance of having students totally prepared when they walk into the classroom each day. Achieve that goal and great teaching becomes much easier.

About 30 years ago, I cut a photo out of a magazine of John Houseman looking every bit the role of Professor Kingsfield. That picture still resides on the back of my office door at eye level. It is the last thing I see each day as I leave to go to my classroom to guide my students.

Professor William Zechman – Before Scott Turow became one of the world's best-known mystery writers, he attended Harvard Law School. Subsequently, he wrote a fascinating little book titled *One L (*published in 1977), a fictionalized account of his first-year experiences. One of the characters Turow describes is William Zechman who taught law by asking weird questions. However, his questioning technique was nothing like that of Professor Kingsfield who presented actual cases and pushed students to arrive at logical answers. Instead, Professor Zechman was a scout leader teacher. No one would have ever referred to Professor Zechman as "demanding." He set out to guide his students by focusing entirely on thinking. He presented strange questions where perfect solutions simply did not exist. Without answers, students had to develop and support their own conclusions.

> How could it be, Zechman asked us, that in some situations you could run a pedestrian down and not pay a penny, and yet be forced to bear all the losses when a toaster which you'd merely sold exploded in a freak accident? The responses from the class were puzzled, tentative. Zechman would digest each, then frame another question. Usually they centered on elaborate hypothetical situations Zechman had devised . . . Was it assault if a midget took a harmless swing at Muhammed Ali? Was it negligent to refuse to spend $200,000 for safeguards on a dam which could wash away $100,000 worth of property? When bewilderment on a subject seemed to have peaked, often with the class baffled into silence, Zechman would move on to another topic. But he never made a positive statement, never gave anything which resembled an answer, not even a hint. He just stood up there in his black suit with an expression of muted concern and kept asking questions; and as confusion grew, so did dissatisfaction. No one was quite sure what Zechman wanted from us. Were we stupid? Were the questions bad? What were we supposed to be learning? It was almost as if Zechman had set out to intensify that plague of uncertainty which afflicted us all.

I reflect Professor Zechman when I occasionally explain to my own confused students, "I am paid enough to ask you questions. I am not paid enough to provide you with any answers. You must figure this stuff out for yourself." This statement, I assure you, does not elicit a single smile. Students want solid answers they can write down and memorize. Any demand for critical thinking pushes them onto an unknown and scary landscape. Most prefer certainty. In the world that exists beyond their classroom, certainty is rare. "Out there," every new question and situation is unique. Years later, the vague recollection of a specific answer transcribed in a college classroom is of little benefit. Students should learn to examine whatever issues arise and apply their understanding to create recommended suggestions they can logically support. This type of usable education can stay with them forever. "Usable education" strikes me as an intriguing goal for a college or university.

At first, as indicated above, the Harvard students disliked Zechman intensely. They wanted definitive answers like those received from their other professors. Gradually, by the end of the academic year, they had gained a deep admiration for the man and his style of teaching. Zechman had guided them to a true appreciation for the inner workings of the law. They had come to understand how to analyze complex legal cases to arrive at reasonable conclusions without having to fall back on memorization.

Professor Kingsfield taught me the importance of asking questions that required a high-level of student preparation. Professor Zechman took that approach a step further and showed me the kind of questions I could use to help students learn to think rather than simply memorize. Decades later, another professor reinforced that lesson in Ken Bain's book, *What the Best College Teachers Do*. Professor Zechman could not have said it better.

> One professor explained it this way: "It's sort of Socratic . . . You begin with a puzzle—you get somebody puzzled, and tied in knots, and mixed up." Those puzzles and knots generate questions for students, he went on to say, and then you begin to help them untie the knots.

"You get somebody puzzled, and tied in knots . . . and then you begin to help them untie the knots." That vision is a beautiful description of the potential role that college teachers can play. Who could not love such a profession?

Before reading about Professors Kingsfield and Zechman, I assumed that only a lecture-style class (with occasional questions and answers to break the monotony) could explain large amounts of complicated subject matter. After all, that is how my teachers taught me. With that approach, the burden falls on the teacher. I served the role of "explainer" (or "the sage on the stage" as mentioned previously). If I lectured well and pointed out every important connection, the students usually learned or, at least, wrote down the correct words and ideas. If I had a bad day, my failure severely limited each student's increase in knowledge. I was responsible for doing the majority of work for the entire group. I did not like that. Although most of my students are young, they are adults. They need to accept more responsibility for their education.

After encountering Professors Kingsfield and Zechman, I began to doubt whether any lecture could possibly convey the type of understanding that I wanted to engender in my students. Even now, decades later, I remember the specific Zechman question that put an absolute end to my days as a lecturer.

> "Now let us commence our discussion of battery," he said, "returning to the gunman of yesterday whom we left shooting at the sky. Let us assume that the gunman intended to frighten the victim and that those actions indeed constituted assault. Imagine now that a duck was flying overhead. The duck was hit by the gunman's bullet, wholly inadvertently, and fell from the sky, striking the victim. Battery?"

One person tries to scare another by shooting a gun into the air. The bullet strikes a duck that falls out of the sky and hits the victim. Does that action qualify as battery? No amount of

memorization will ever address such a question. The students in *Doonesbury* cannot locate that answer on the internet. Only a genuine understanding of the law can lead to a legitimate solution. I read this passage in *One L* and knew immediately that it was time for me to stop talking so much in class and start asking questions. I have never looked back.

Professor Deck Andrews – Although I taught courses in graduate school, my first full-time teaching job was at Gardner-Webb University starting in August 1972. I was 24 years old. To quote a Bob Dylan song, my experience was limited and underfed. Many of my students were military veterans returning from the war in Vietnam. They were older with experiences beyond my wildest imagination. While I sat safely in a comfortable classroom worrying about grades, they were nearly 10,000 miles from home risking their lives in a treacherous jungle war. Explaining to a former Marine that he had failed a test was an adventure. One of my better students suffered with an obvious, but undiagnosed, case of post-traumatic stress disorder. Whenever a door slammed or any other loud noise suddenly sounded, he dived on the floor in fear of being shot. That happened so routinely that the other students stopped noticing.

No part of the teaching process came easily to me. I felt like a child performing a poor imitation of an adult. "Uncertain" was the word of the day, every day, as I stood in front of the students. Professor Andrews was my boss, a wonderful mixture of gruffness and caring. He reminded me of a demanding drill sergeant whose only goal is to develop soldiers who are strong enough to complete the mission and also save their own lives. One afternoon, he took me aside to impart a simple piece of advice that has resonated with me throughout my career. "If you truly care for these students, you will push them as hard as you can. That is what they want from you." Those words provided me with a guiding focus. From that moment, I began to construct a teaching career built on the framework of that philosophy.

Either I care enough about my students to push them or I do not. The answer is not trivial. It affects every action before, during, and after class. If I truly care, the wise use of each minute becomes vital. To achieve great results, teaching must be more than a mechanical job performed to earn money. Teaching is too important "to just go through the motions." Teachers who no longer care about their students should find a better way to make a living. Professor Andrews' advice is still relevant decades later. Do I care enough about these students to push them as hard as I can to succeed? Before starting any semester, I need to have an honest chat with myself and arrive at a truthful answer to that question.

College professors have many responsibilities beyond teaching such as committee work, department assignments, advising, recruiting, accreditation, writing, research, experimenting, and more. I visited Moscow a few years ago where I learned a Russian adage, "If you chase two rabbits, you will not catch either one." With so many responsibilities, professors can find themselves chasing many rabbits but catching none. That does not lead to greatness. In such an environment, energy and enthusiasm dissipate quickly. Based on decades in this profession, my advice to every teacher is, "Pick one rabbit to chase." Speaking strictly for me, I intend to chase the rabbit that represents great teaching. Other responsibilities are important, but my priority is pushing students as hard as I can to help them think deeper and learn more. Professor Andrews

planted that seed in my brain. Greatness is impossible if it is not the priority. Professors Kingsfield and Zechman introduced me to innovative teaching techniques, but Professor Andrews shared a lifelong teaching philosophy. I liked his words in 1972. The sentiment suited me well at the age of 24. It suits me just as well today at a much older age.

However, pushing students as hard as possible cannot be a teacher's automatic excuse for every extreme whim. Some faculty members drive students unmercifully without any legitimate educational rationale. Tyrants never become great teachers. The desire to motivate students should not cloud the teacher's understanding of their humanity. For example, if a student admits to a lack of preparation because of a test in another class, I am willing to call on another student that day. If a student misses class because of a personal crisis, I see no reason for retribution. I am a teacher and not a judgmental god. Rules should never replace a teacher's reasonable judgment. As I tell my students, if any problem arises, my office is always open for conversation. Most students work harder if they realize the teacher has empathy for the normal human challenges they face outside the classroom. Push your students but remember that they are not robots.

In Greek mythology, Athena was born from the head of Zeus already dressed in full armor. The rest of us start out, both literally and figuratively, as babies. We must rely on positive external influences if we are to grow and mature. I view myself as extremely fortunate in my career. Professors Kingsfield, Zechman, and Andrews have had huge influences on my professional life. I fell under the spell of three individuals who had a keen understanding of what they wanted to accomplish as teachers. Their actions were never random. The amount of good such people can achieve in this life is beyond measure.

Who has influenced your teaching? How closely have you studied these great teachers to determine what they are doing? How does their magic work? What about their teaching did you find so appealing? How did those encounters change your thinking about students and the learning process? Whether you have been at this vocation for one month or for 52 years, consider who helped you develop the teaching techniques and strategies that you employ in class. Establishing a path for how you want your teaching to evolve can be difficult until you determine exactly how you arrived at your present philosophy.

LESSON TEN

THE RELATIONSHIP THAT CAN COME TO EXIST BETWEEN TEACHERS AND STUDENTS

WILL I BE A TEACHER THEY NEVER FORGET?

Question. *Professor K has had a bad day. Classes did not go well. The newly covered material is difficult, and even her best students are floundering. They all seem lost. She is not sure how to help them. Everything she has tried appears to make the confusion worse. Before leaving for home, she stops to chat with a colleague and describes her quandary. She is clearly frustrated. "I am convinced that great teaching is impossible, at least for me. Nothing is working. Why do I continue to try so hard? I am not even sure the students care whether they learn. They only want a decent grade and to have plenty of time to party." The colleague knows Professor K is capable of greatness. How should he respond so that she might return to campus the next day with renewed enthusiasm?*

The Connection Between Teacher and Student. Why do people become teachers? We all appreciate the salary, but, unfortunately, the possibility of untold wealth is out of the question. Extended vacations are nice, and faculty members love having the opportunity to take advantage of paid sabbaticals. Nevertheless, no simple answer sufficiently explains the dedication of so many bright and talented people. What motivates a person to become a teacher, in college or at any other level? The work is difficult and frequently frustrating. Other jobs pay better. Many of them offer less emotional stress.

My brother retired a few years ago as (in my opinion) the world's greatest middle school teacher and principal. I loved hearing him talk about his work because he was so emotionally involved with "the kids." His excitement was contagious and never failed to recharge my enthusiasm. Middle school students struggle through one of the most transformational and difficult times in their lives. They are confused and insecure but often resist all offers of help.

I could never have done my brother's job, not in a million years for a million dollars. He worked tirelessly with genuine empathy for each young person in his charge. He guided busloads of students, many of whom had rarely left their rural home county in North Carolina, to Oz-like destinations such as Washington, D.C., New York City, and Toronto. He wanted them to broaden their horizons by experiencing a bigger section of the world. He was innovative, caring, stern, funny, and all the other characteristics required for such a challenging responsibility. He had a deeper influence on more students in one year than I do in ten. I could not begin to estimate the number of lives he touched in a positive way. In the small community where he worked and still resides, everyone knows his name and treats him like a reigning dignitary.

He and I attended the same university. A few years ago, I went searching through several 50-year-old yearbooks looking for interesting campus scenes for a photo collage I was creating as a Christmas present. Near the back of one battered volume, I came across a tiny picture of a handmade sign. It shows a sheet of paper that a now-anonymous person had taped on a classroom wall in 1967. A few words were scrawled in pencil. It was an odd photo to include in a yearbook, a deeply personal reflection from a bygone era. Without explanation, it asked,

Will I be a teacher they never forget?

The longing and uncertainty expressed in these eight words point out the ultimate reward for great teaching, a universal goal we all seek. In the future, perhaps decades from now, one of the students sitting in front of us today might look back on life and realize, "I once had this special teacher who influenced almost everything I have done since I left school. I was destined to become a failure, but this teacher had confidence in me as well as infinite patience, sharing the joy of education and opening my eyes to the excitement of learning. I was a rough young person struggling through difficult years, but this teacher helped turn me into a caring and thoughtful adult. In my life, that person has made all the difference."

A short essay in the *Wall Street Journal* makes much the same point. A former student mourns the death of a beloved professor (Peter W. Schramm of Ashland University).

> His office was always full of students wanting to tear off a bit of wisdom . . . Schramm taught his students how to think and live well, how to be prudent and judge wisely, how to seek the just and the true. ("A Professor Who Put Teaching First," *Wall Street Journal*, Jason Stevens, September 16, 2015)

He "taught his students how to think and live well, how to be prudent and judge wisely, how to seek the just and the true." Few kings, presidents, dictators, generals, doctors, pastors, or priests could have kinder words said of them at their end. Unfortunately, I did not know Professor Schramm but, his life seems like one that was truly worth living. Although teachers rarely receive the monetary compensation they deserve, almost no other career offers this level of emotional payoff. In the teaching profession, changing lives is not an outcome restricted to a few specially trained individuals. From oldest to youngest, we all have the opportunity to affect the future of every student who walks into our classroom. Only our own thinking and ambition limit the magnitude of this potential influence.

Teaching, though, is not all sunshine, lollipops, and roses. During difficult days, the job can become both frustrating and overwhelming. At such moments, we tend to fall back on a bitter lament, "No one appreciates what I do." I have felt that level of self-pity on many occasions. What a student might come to think about you in a few decades is little solace if the current class is stuck in epic levels of lethargy. Students often seem uninterested in even the possibility of educational enlightenment. "They really don't want to learn" becomes an easy but possibly true excuse for a teacher who does not want to stray from the status quo. Designing experiments to

achieve 5 percent annual improvement holds little interest for a teacher who believes students do not care about their own education. Building and maintaining your Rube Goldberg Learning Process becomes a considerable amount of work if your classes seem to be spinning their wheels without any traction.

The relationship between teacher and student is complicated under the best of circumstances. How can a teacher become that one person a student will never forget? That depth of influence is the ultimate prize that many of us seek. Below are three exercises designed to help you consider the actions necessary to nurture a strong connection with your students. Hopefully, these exercises will provide a bit of the inner strength needed to withstand those challenging days we all inevitably face in the classroom.

The first asks students to identify what they want from their teachers.

The second seeks a similar answer from you about your own teachers.

The third switches the perspective to consider how you hope students will remember you.

About the time I began my teaching career, I heard a professional football coach declare his strong belief on television that every person wants to be pushed to become a champion. I remember those words well, probably because the philosophy appeals to me. Even today, it continues to influence my approach to students and education. For some teachers, this view of human nature can lead to greatness. They push students hard and push them often. For others, it would be disastrous, much too rigid and impersonal. The real key to success is to identify the relationship that works for you. How do you encourage student interest and effort so that they will never forget what you did for them? The following three exercises can assist you in establishing a personal approach that works best for you and your students.

Exercise One – What My Students Tell Me About What They Want. When developing marketing plans, movie endings, political campaigns, and countless other programs, experts make extensive use of focus groups. Typical members of a target audience are brought together to be quizzed on what they really want. Should a television ad focus on the quality of a product or its price? Should a political candidate support additional spending for the military or for medical research? Should the heroes in a film marry at the end or go their separate ways? Information gathered in a focus group often affects the development of the final product. Its use has become a widely accepted means of ascertaining what strategy is most likely to succeed. Unfortunately, focus groups are expensive to create and, therefore, limited mostly to high budget endeavors. They are costly, that is, unless you come up with a shortcut.

I mentioned earlier in this book that I occasionally ask my upper-level students to write a paragraph about the best teacher they have had to date in college. The resulting information is fascinating. I incorporate these observations into a class discussion about the attributes that

make up effective leadership. As I have said, the only restriction is that students cannot describe my teaching. That conversation might be uncomfortable.

This assignment is one you should consider replicating. It is easy to do and what you learn can be instructive. Like a focus group, it provides a unique peak into student views of outstanding teaching. What attributes do they judge as beneficial? What characteristics do they associate with their best teachers? Although not graded, my students seem to approach this assignment with special care. Despite being asked to write only a single paragraph, many compose long descriptions that are both lovely and inspiring. As a result, I remain convinced that students do want and respect great teachers. On any one day, that feeling might not be obvious, but their written thoughts betray a deeply held appreciation for what their best teachers accomplish.

Here are a few rather randomly chosen selections from the past few years. I could have included several dozen, but they all convey similar messages.

He has been everywhere and done everything so I find talking to him to be very interesting. He encourages students to come to his office by luring them with all kinds of book recommendations. I think he fully understands that in order to return his books you have to come back. He takes a keen interest in people and he listens to what they say and how they say it. Not many people, let alone professors, are capable of doing this. When you stop by with a question about an assignment, you'll end up having an hour's conversation about Somali pirates, the etymology of Schadenfreude and how coyotes smuggle Mexicans across the border. This spontaneity and insatiable hunger for information is both fascinating and inspiring.

His best quality was his work ethic. He was always up till at least two in the morning to answer emails. If you emailed him any questions he would respond promptly with in-depth answers and explanations. Also, every week, he would have an optional study group where we went over the homework problems. I respected him as a leader because of how hard he was willing to work to help me. When someone works that hard it makes you want to work just as hard out of respect. He truly cares about his students and their learning.

This professor inclined the class toward discussion. You had to be prepared for each class by reading a historical case. The cases were usually black-and-white, but our discussions were exciting. He expected everyone in the class to have an opinion on all of the cases, he helped guide you into what he thought was actually the more accurate story, and he was not an easy grader.

He was my best professor so far for many reasons but a few of them were accountability, critical thinking, and understanding. First, he always held each and every student accountable for any of the work assigned and if the student had not attempted the work or did not try then consequences would be made. Yes, this may seem harsh, but it forced all of his

> students to put in time and effort into the material to actually learn it. Second, he had the ability to make students use their critical-thinking skills. He would ask questions to push the students and learn above and beyond just the textbook. Last of all, was his understanding. The subject was not easy, but if you put in the time and effort he was always available to help answer any type of question.

> If I could describe his attitude towards his students in one word, it would be egalitarian. He made every student feel as if they were important. Whether you were the best student or the worst student, he still gave equal attention to all.

> As for his expectations for the course, he did not hold our hand—he inspired us to do our own research in order to make the connections that would elevate our performance to an A level.

> Not only is her class a joy to be in—filled with discussions regarding everything from race to culture shock—she is also a great role model with diverse experiences to back up her advice.

> He made each and every student push themselves to the limit and use critical thinking that they had probably never used previously. There were times where I would walk out of that class and I would feel like my mind just got blown. That was partially because of what he had said but mainly because of the amazement I had at how he was able to guide me into thinking in ways that I never knew I could do.

> What I liked most about this professor was his philosophy toward teaching. He put a much greater value on learning than he did on grades, which is something that most students and teachers do not do. This philosophy, however, did match up with my personal beliefs, so I was immediately interested . . . Through his style of teaching, this professor was able to make me interested in a topic where I had no prior interest. I believe I learned more in his class that I still am able to remember than any other class I have taken. To this day, I still remember things about Pushkin, Belinsky, Gogol, and other writers.

After your students describe their best teachers, read each response and circle any phrases that stand out. Highlight thoughts that seem significant and prevalent. What teacher attributes do students consistently seem to praise? This exercise can provide excellent guidance by identifying what the students in your class appreciate. Teachers can learn more from a room full of students than from any book, including this one.

For practice, review the above quotes and select several of the most noteworthy descriptions. The resulting accumulation might resemble the following.

> "He listens to what they say and how they say it," "This spontaneity and insatiable hunger for information is both fascinating and inspiring," "I respected him as a leader

> because of how hard he was willing to work to help me," "he truly cares about his students and their learning," "you had to be prepared," "our discussions were exciting," "he helped guide you," "he always held each and every student accountable," "use their critical-thinking skills," "always available to help answer any type of question," "egalitarian," "he made every student feel as if they were important," "he still gave equal attention to all," "he did not hold our hand – he inspired us," "not only is her class a joy to be in," "she is also a great role model," "push themselves to the limit and use critical thinking," "able to guide me into thinking in ways that I never knew I could do," "able to make me interested in a topic."

Identify each characteristic that you view as especially important. Use the resulting list to assess your own teaching.

--"He listens to what they say and how they say it." Does that sound like you?

--"This spontaneity and insatiable hunger for information is both fascinating and inspiring." Is that how students think of you?

--"I respected him as a leader because of how hard he was willing to work to help me." How often do you take that extra step?

On this list, where might your teaching earn an A or a B? Where are you likely to deserve a D or F? It is not truly a focus group, but the students will provide serious thoughts about excellent teaching. Judging yourself against valid criteria can be helpful in identifying strengths and weaknesses at those times when you want to take remedial action to become that teacher your students will never forget. Honest self-reflection is always beneficial.

Sadly, I have encountered teachers over the years who were skeptical of anything that places students in a positive light. Some suffer from such a serious degree of career burnout that cynicism outweighs all other views. When confronted with the above list, they argue that students are simply providing the answers they suspect I want to hear. Many students do develop an impressive knack for writing to meet a teacher's expectations. In this case, though, I have three rejoinders for such skepticism. First, the assignment is not graded. Students have nothing to gain by composing elaborate responses to please me. Second, read the comments. To my ear, they do not sound contrived. The students seem to be describing real teachers in real terms. Third, find out for yourself. Give this assignment to your students. You have nothing to lose. Spell out whatever instructions you feel are necessary to encourage complete honesty. Then, read the responses. Do they seem serious and honest? If so, consider how you can make the best use of their remarks as you get ready for your next teaching experiment.

I have an additional sidenote on this exercise. Where possible, I erase all student identification and forward each individual paragraph to the actual "best" teachers across campus. The recipients often respond with the most heartfelt words of appreciation. Many seem close to tears

that a student selected them above all others. I have previously asserted that organizations do not create enough opportunities for positive reinforcement. Everyone, including college teachers, benefits from an occasional pat on the back. As humans, we should look for chances to provide those individuals who are around us with more encouragement. Make that a personal goal. A note written by a student celebrating the influence of a teacher is an emotional reward that money cannot buy. No wall plaque or public recognition is necessary. The paragraph will be sufficient. After all, each of us wants to be that teacher a student will never forget.

Exercise Two – You Do Know the Characteristics of Great Teaching. When I travel to teaching programs, I often encounter an unusual phenomenon. During a coffee break or after finishing a discussion, a few participants pull me aside to hear their troubled confessions. I feel like a priest being asked to provide absolution. These teachers look into my eyes with deep emotion before beginning a sad, troubled litany. "I honestly do not know how to become a better teacher. I try but I am just not very good. Other people apparently know some hidden secret, but the message never got to me. I am wasting my time. I have no idea how to improve by 5 percent during the coming year. For me, great teaching is an impossible dream."

As in a Dan Brown novel, some teachers hold to a conspiracy theory. A hidden trick exists that leads other professors to greatness. Unless a person is privy to a mysterious code, every effort to improve will prove futile. Such personal admissions happen so frequently that I open many of my presentations with a group exercise to address those fears.

I start by asking the members of the audience to shut their eyes in order to listen to my words without distraction. I want their undivided attention as they consider a simple question.

> Mentally, go back through all the teachers you had from kindergarten through graduate school. Choose that one special person you would describe as your best teacher, not the funniest or the most popular, but the best. Apply any criteria you want. The decision is entirely personal. You could pick a sixth-grade history teacher or a ninth-grade biology teacher. Your selection might be a person right out of college who helped you learn to read or an elderly math professor in an introductory-level college course. From my experience, most people make their choice without much internal debate. One teacher usually appears from out of the past, a person you view as towering above all the rest.
>
> Now, identify three characteristics that stand out in your memory about this person. Was the teacher kind, gentle, driven, sadistic, or what? Describe your choice using only three words. What made them great? Why will you never forget this one specific teacher?

I instruct the participants to open their eyes and introduce themselves to a person in a nearby seat. I direct each two-person team to spend five minutes telling each other about their best teachers. They should focus on the three prominent characteristics they identified. It is not supposed to be a theoretical discussion but rather a personal one. Inevitably, the noise level builds to a crescendo as everyone excitedly describes teachers who made significant differences

in their lives. Even the quietest introvert grows animated as the discussion continues. I have trouble getting the group quiet after five minutes.

I next urge audience members to shout out the one term that was most stressed by their teammate to describe a best teacher. As the calls come from around the room, I write each on the board. I am not psychic, but the descriptors are rarely unexpected.

Caring	Energetic	Hard working	Honest
Organized	Inspiring	Enthusiastic	Patient
Empathetic	Innovative	Demanding	Helpful
Knowledgeable	Open	Engaging	Confident

To conclude this exercise, I ask the group to close their eyes once again as I provide final instructions.

> Never tell yourself that the keys to great teaching are a mystery shrouded in secrecy comparable to the location of Blackbeard's buried treasure. In the last few minutes, we transcribed a rather complete list of those "secrets" on our board. We identified characteristics of great teachers, not merely good ones but the best. These traits are listed here to guide your quest for improvement.
>
> Now, think again about your best teacher and the characteristics you associate with that person. For each of those three words, what grade is currently appropriate for your teaching? Be serious. Be honest. Would you deserve an A, a B, or what? Now, focus on the one with the lowest grade. That assessment tells you where to concentrate efforts during the next year when seeking 5 percent improvement. For this exercise, you can even solicit ideas from a role model. Pretend your best teacher walks into our room and explains, "I am here to help you experiment so you can become better in this essential area of teaching." What suggestions would your best teacher most likely offer? Consider the answer carefully because that guidance is going to help you improve.

This exercise is one of my favorites for several reasons.

---It helps take the mystery out of great teaching. Many teachers refuse to experiment because they assume improvement is not possible. They seem to believe miracles are necessary. In truth, the real keys for success are rather commonplace. Every person who seriously tries has the ability needed to become a great teacher. I believe nothing more absolutely than that statement.

---It is personal. A lot of teaching advice describes what other people do with other students in other schools. Personalities are different. Students are different. Daily challenges are different. This exercise is an examination of teaching based solely on your experiences and beliefs. What characteristics did your best teacher exhibit? In which of these areas can you improve the most?

What assistance might your best teacher provide? Every answer comes from inside you and not from a stranger working in some distinctly different environment.

---It can be done anywhere and at any time. The entire exercise takes only a few minutes. You do not have to pay a fortune to attend a conference and sit through a long-winded presentation. Structured self-reflection is a key step in becoming a teacher that students will never forget.

Exercise Three – What Would You Like for Students to Say About You? Many years ago, Tombstone Pizza ran a series of television advertisements that posed the double-edged question, "What do you want on your tombstone?" The company obviously sells pizzas so the answer that management hoped to elicit was some tasty version of "pepperoni with extra cheese." Quite naturally, each ad could also lead viewers (or at least me) to consider how they might prefer for friends and colleagues to think of them after death. I am not morbid. It can be a worthwhile exercise. How do you want students to remember you? The answer should provide guidance for your teaching while you are still alive.

What legacy is being created as you enter the classroom each day? A career should have a purpose beyond the receipt of money. Otherwise, teachers risk winding up in jobs that eventually come to feel oppressively monotonous. Both teaching and learning will falter if teachers settle into a perpetual rut. I recall professors from my time in college who seemed to operate their classes using autopilot. They showed up each day clutching yellowed notes and no visible energy or enthusiasm. While I was a student, our school newspaper published a satirical article claiming that one specific professor had "retired without telling anyone." That is not the epitaph I want carved on my tombstone.

Identifying a "tombstone goal" can be a beneficial exercise. I sometimes initiate this discussion when I meet with faculty. To guide the group's consideration, I describe a short scenario that sounds like a scene lifted from *A Christmas Carol*.

> Assume it is many years from now. Two of your former students are hiking and come across a cemetery. They wander in and happen upon your grave. They clearly recall attending your class. One of them has a marker. Quickly, they scrawl a remembrance along the base of the tombstone. What would you have them write? How would you like former students to think of you?

Probably a million messages are possible, some sad, some funny, and others quite glorious.

--Made a genuine difference in my life

--Had unlimited empathy for students

--Clueless

--Inspired me to work harder

--Rarely used talents well

--Was born to teach

--Had no patience and yelled obsessively

--Bored the class to death

--Every thought seemed original

--Ambitious and innovative

--Lacked any sign of life

--Nicest person in the world

--Loved the sound of his own voice

--Relished the topics being taught

--Pushed us every day to succeed

I have mentioned several times a teacher's need for honest self-assessment. Here is an excellent opportunity to consider two important questions. First, what would you like those former students to write on your tombstone? Compose a few words to describe the personal effect you want your career to have on students. Second, what do you believe your current students would be inclined to write about you? That might be a helpful question for RateMyProfessor.com to ask. Improvement is difficult to implement until you identify how far the present situation is from your long-term aspirations.

A few years ago, I had an intriguing peak into how students might remember me. I am still pondering what I learned from the experience. Each spring, my school holds a recognition dinner for our graduating seniors in a grand hall of a nearby museum. The food is good. The speeches are interesting. We celebrate the achievements of the students who are leaving us to move on to the real world. As is typical of such events, faculty members announce honors for the most outstanding students.

The students respond with their own awards for the faculty. Some of this recognition is serious. Other parts are frivolous. A few years back, I was at this celebration sitting at a table with several students. We were having a marvelous conversation when a member of the student government stepped to the podium to announce that the next award was, "The Scariest Professor in the School." Immediately, every nearby student turned and looked at me with a knowing smile. I am elderly, bald, and nearsighted. At 5' 8" and 155 pounds, I am hardly a vision of Freddy Krueger. With mocked gravitas, the student leader opened the envelope and with a flourish announced the winner. It was, indeed, me.

I walked to the podium and received the honor trying not to frighten anyone along the way. During the meal, I had dined next to a senior I did not know. Our discussion had been lovely. When I returned to my seat, she leaned over with great enthusiasm to inform me, "I have never met you before this evening, but I voted for you." Apparently, she felt a deep need to assure me that I was truly deserving of this recognition. Consider the implications of having that message scrawled on your tombstone. "This guy was the scariest teacher ever."

If the story ended at that point, I am not certain what a valid response might be. However, a bit later, another student revealed the final award of the evening, "The Professor Who Cares the Most." I won that as well. This combination seems rather strange. "The scariest professor" and "the professor who cares the most" do not qualify as a perfect complementary pairing like soup and sandwich or love and marriage.

Driving home that evening, I had an Ebenezer Scrooge moment. A vision of my tombstone appeared before me engraved with the words:

The scariest professor but also the one who cared the most.

It was an unsettling mental picture. Some of my all-time best teachers would surely blanch at such a description. In the intervening years, I have thought often about this epitaph. Should I work to change it, or am I happy with this student description of my life's work? I teach full time so, theoretically, I still have ample opportunity to reinvent my image. Time has not yet locked me into that persona. <u>As Scrooge learned, if you are not dead, significant change does remain an option.</u>

Truthfully, I have grown to like the message conveyed by those seven words. They fit my teaching personality and aspirations. Every semester now, I try to live up to both awards although I do prefer the caring part. In another 25 years if a student remembers me as the scariest professor who cared the most, I will be pleased. The moniker reflects a conscious decision about my vocation. I suspect other teachers might be less thrilled if students were to recall them in this way, but it works for me.

Who do you want to be in the eyes of your students? If former students stumble upon your tombstone in the distant future, what message would you like them to leave? Such self-assessment can provide a guiding light for what you do in class today.

<u>A Teacher They Will Truly Never Forget.</u> I grew up in the 1950s in a tiny blue-collar manufacturing town of about 1,000 in the hills of North Carolina. My high school graduating class numbered 99 with approximately 25 percent married and 10 percent already having children. Only a few of those students considered attending college. Although not a metropolis, the town was a wonderful place to grow up. The residents were caring and kind.

Then and now, many such areas celebrate their high school sports programs. True to form, much of my hometown turned out on Friday evenings in the fall to cheer on the local boys as they played football. The team won some games and lost others. They had good seasons but not every year. Nevertheless, one outstanding performance was always on display. The high school marching band played at every game and demonstrated a consistent excellence that went well beyond the size and location of the school. I have no musical ability but even I realized that our band was the epitome of the description "far exceeds expectations." The director was Kathryn Siphers. I did not know Ms. Siphers, but she seemed to be a quiet and serious person, one who was able to coax the best out of those high school musicians. She took a group of rural kids with varying degrees of talent and turned them into a prize-winning band, not once but year after year.

In hindsight, I wish I had taken the initiative to sit in the band room to watch her guide those young people to such sterling results. Her practice sessions must have been a fabulous display of great teaching. Working with individual students is difficult but bringing an entire group together to create beautiful music is particularly impressive.

Ms. Siphers died in 1986 at the age of 62. That is a long time ago. The little town now has a Facebook page. I love how frequently former students mention her name. Even all these years later, they talk about her in glowing terms as if she were a dear relative. Recently, one person wrote, "I think I cried harder at her funeral than any other one I have ever been to." Another responded, "Her influence was unlimited." Nearly four decades after her death, the members of that band continue to talk about Ms. Siphers as a real presence in their lives. Because I did not know her personally, I cannot judge but her life appears to have been one very much worth living.

After her death, a colleague wrote about her in the local newspaper. Although he did not scrawl these words on her tombstone, the sentiment describes what I mean by a teacher that students will never forget.

> Ms. Siphers was more than a band director. She was a teacher's teacher. In her philosophy on teaching, she wrote, "Teaching is my life. I have been given one talent to use. This talent has made it possible for me to teach many children music. I believe in music as an exalter of the human spirit, as a life-giving force in education. My challenge is to lead students into genuine and permanent love and understanding of beautiful music. I believe if a teacher is to be successful, one must grow as one works. One must be enthusiastic and untiring in efforts to get the work done. Constant planning, working, evaluating, examining of materials and teaching procedures must be made. For me, teaching is exciting. It is an obsession, but a magnificent obsession."

Does life get any better than that?

Would you like for your students to remember you as a caring person? What does that mean to you? How would you show them that you were caring? Would you prefer that they think of you

as enthusiastic or, perhaps, demanding? Have you considered how you want your students to think of you so that you would be that teacher they never forget? Teaching is complicated. Can you narrow down a desired self-identity to three major characteristics? If so, this knowledge can help you create a meaningful relationship with your students.

LESSON ELEVEN

THE RIGHT STORIES CAN MAKE A REAL DIFFERENCE

WHAT DO YOU CHOOSE TO TELL YOURSELF ABOUT TEACHING?

Question. *Professor L recently earned a graduate degree from a well-known research university and received an appointment as an assistant professor at a large school in a nearby state. He is looking forward to starting his career and beginning the rigorous work necessary for tenure and promotion. His first class is tomorrow. He will face 40 sophomores for 75 minutes. Another professor stops by Professor L's office to welcome him. Trying to be friendly, the colleague asks, "How are you feeling about your teaching?" Professor L is slow to answer because he wants to avoid saying the wrong thing. Finally, he shrugs and responds, "To tell you the truth, I am scared to death. I keep thinking about everything that might go wrong." If you had visited Professor L that day and heard this story, what advice would you give?*

The Power of the Stories You Tell Yourself. I listen to audiobooks as I drive around in my Subaru. Whether fiction or nonfiction, my commute is always more pleasant when accompanied by the sound of a good book. A few years ago, I listened to *Wild*, a memoir by Cheryl Strayed. It is long and complex so I will omit a detailed synopsis. However, near the beginning of this autobiographical work, the author comes to believe she has lost control of her life at least in part because of the death of her mother. She decides to focus on a genuinely difficult challenge in hopes of regaining inner peace and stability. In that circumstance, I might have taken up a hobby such as pottery.

With virtually no experience to guide her, Strayed chose to walk 1,100 miles alone through the mountains of California and Oregon on the Pacific Crest Trail. Even now, the risk associated with that venture strikes me as absurd. Although she faced horribly frightening experiences during those three months, she ultimately succeeded. She was not the fastest hiker, actually one of the slowest, but she made it. Along the way, she encountered enormous challenges but figured out solutions to get through them all successfully.

One morning I was listening to *Wild* as I drove to campus. In the book at that moment, Strayed was getting ready to begin her incredibly long, difficult journey. At the last minute, she lost her nerve and almost quit without taking the first step. In describing her faltering emotions, she wrote a sentence that is so insightful that I literally pulled my car over to the side of the road so I could write it down.

> Fear, to a great extent, is born of a story we tell ourselves, and so I chose to tell myself a different story from the one women are told.

Shakespeare could not have written a better line. "Fear, to a great extent, is born of a story we tell ourselves, and so I chose to tell myself a different story from the one women are told." What an uplifting response to a personal challenge. Those words have stuck with me like an arrow for years. The relevance to our lives is even more apparent if we swap out the word "Fear" for alternatives such as "Hate" and "Envy" and apply the admonition to everyone. Human beings are very much a product of the stories we tell ourselves.

What holds us back from reaching our potential as teachers? Unless we are careful, the stories we tell ourselves can create a substantial barrier, one that prevents us from achieving our desired level of success. As the comic strip *Pogo* warned many decades ago, "We have met the enemy and he is us."

Consider the stories that pop up in the back of your mind when a problem occurs in one of your classes. Do any of the following possibilities sound familiar? They do for me because they have all crossed my own mind at one time or another. In a moment of frustration, doubts always arise.

--I'm not smart enough to teach these students. They are brilliant and will make me look stupid.

--I can't teach. I'm not even capable of explaining basic concepts.

--I have so much work to do. I will never be able to put sufficient time into my teaching.

--I am afraid to experiment with my classes because I fear that I will lose control of the students.

--I have so many students. I cannot possibly give all of them individual attention.

--I can't help students who won't try and most of mine don't try.

--I get nervous and flustered when something unexpected happens in class.

--I can't worry about my students. I need to focus on my research, or I won't receive tenure.

--I am an introvert. I always have trouble in front of a class of students.

All these stories are absolute nonsense! Our fears create such stories to give us easy excuses for avoiding difficulties, to give us permission to surrender or fail. We allow ourselves to be held back. Come up with better stories and you will come up with better results.

Consider the stories you tell yourself and eliminate any that are drenched in fear. Choose stories about your teaching that are positive, optimistic, and productive.

--I will start keeping a teaching diary so I can monitor what I do in class and how well it works.

--I will try one new education experiment in my classes each month so that I can make a 5 percent improvement by this time next year.

--I will do serious thinking about how I can convince my students to arrive at class every day prepared and ready to participate in the discussion.

--I will help my students understand the problem of Swiss cheese knowledge and assist them in filling in the holes that remain hidden within their knowledge.

--I will establish a system that enables me to communicate clearly with my students so their faith in me and my teaching will grow.

--I will reduce the time I talk in class so my students will have the opportunity to provide their half of the conversation.

--I will work to create tests that stress the development of critical thinking skills so that my students know I am serious about moving beyond a conveyance of information model.

Teaching has so many wonderful stories if we avoid becoming bogged down by negativity.

- As I have said previously, the four points of the Education Diamond form the foundation for my Rube Goldberg Learning Process.
- Then, the development of every student's faith in the teacher provides the heart for that complex structure.
- Next, all the stories we tell ourselves about teaching and what we want to accomplish create the skin and muscles. They hold the structure together. Without positive stories, teaching can become chaotic. An effective learning process contains many moving parts. Stories are needed to bind the entire mechanism so that it runs smoothly and effectively.

Here are three stories I have told myself many times during the past 52 years to provide direction for my work while keeping me aware of the importance and excitement of my job.

<u>Story One. The Fly-on-the-Wall Question.</u> From the first day of every semester to the last, I want to be able to chat with my students and honestly inform them, "Here is my wish for you." Of course, I could simply tell them, "My wish for you is that you learn a substantial amount of material and make an A," but that sounds mundane even to me. I suspect few college students will be excited by that declaration. Jiminy Cricket would find that a boring wish.

Without well-considered outcomes, teachers resemble hikers lost in a forest with no compass. Any eventual destination is the result of luck rather than planning. With no directional navigation, anything (or nothing) can happen.

To help teachers identify a guiding story for themselves and their students, I often ask them to address what I refer to as my "fly-on-the-wall question." Assume it is the last day of the semester. You are a fly sitting on the wall above the door at the back of the classroom. What would you like to hear students say about your class as they exit for the final time, not about you personally but about the class experience as a whole?

Ponder the question carefully. The answer tells a lot about the attitude transformation you seek to create in your students. Your story provides essential guidance for structuring your Education Diamond. If you want to hear students talk about the music of Mozart and how it differs from that of Bach, then you must mold each of the four points in a way that will lead to that outcome. The same is true if you hope to hear your students debate the theories of Freud and Jung. A teacher's lack of specific goals hampers student advancement.

As a teacher, what do you want to hear your students say as they leave class on the last day of the semester? I have asked this question in various forums over the years and received many great answers. Think about how each of the following fly-on-the-wall responses will influence the development of a teacher's Rube Goldberg Learning Process.

---I thought renaissance art was stupid but now I truly appreciate the beauty in those paintings.

---I have come to love sociology so much that I have decided to choose it as my major.

---I now realize why understanding calculus is actually important. (I took calculus in the fall of 1966 and learned quite a bit. However, the professor never once explained why I should care.)

---I would love to become a college professor so that I can teach the brilliance of French literature. Nothing could be more interesting than studying Victor Hugo and Alexandre Dumas.

---I envy anyone who has the opportunity to conduct biology research every day.

---I never realized that World War I had such a significant effect on our world today.

---I can imagine so many beneficial applications for artificial intelligence.

---I understand the reason scientists view climate change as a threat to civilization.

---I found the explanation of the world's religions gave me a better understanding of God.

---I appreciate how the music composed by Mozart is different from equally beautiful music composed by Bach.

---I have discovered why the theories of Freund and Jung have led to so many intense debates.

Fly-on-the-wall answers are aspirational as well as personal. Three different professors teaching the same course at the same school can legitimately hope to hear entirely different words as their students leave the final class. Those desired results should lead to differences (subtle or not so subtle) in each teacher's learning process.

I have thought hundreds of times over the years about the fly-on-the-wall question. I invariably come back to the same few sentences. My answer will not work for everyone, but it helps anchor my teaching. It affects the structure of each point in my Education Diamond.

As students leave my class on the last day of the semester, I would love for a fly sitting on the back wall to hear the following observation.

> I never realized I could work so hard. I never realized I could think so deeply. I never realized I could learn so much. Moreover, I had a lot of fun.

Those sentences focus on five specific words that cover what I consider to be the essence of high-quality education: "work," "think," "learn," "fun," and "I." Notice that my fly-on-the-wall goal makes no mention of the subject matter taught in the course. Many might wonder about this omission but that is a conscious decision. In my mind, if I am satisfied with each student's approach to "work," "think," "learn," "fun," and "I," coverage of the subject will take care of itself. Earlier, a *Doonesbury* comic strip (and a Paul Simon song) highlighted the problem that schools face when they are overly concerned with content delivery. For me, "work," "think," "learn," "fun," and "I" provide more directional benefit for my students than any attempt to stress topical coverage. Put these words into action for a semester and you will truly change lives.

When I design my courses, each day's coverage should mesh with those five words in some logical fashion. Every assignment must pass the litmus test of addressing that goal. If not, I am wasting time. Teachers need to avoid constructing even a small part of a class based on "busywork" that has no defined purpose. Over the years, I have reworked or replaced many of my class puzzles because, upon further review, they failed to meet this five-word standard.

For me, the inclusion of "fun" is especially important. I believe that an inability to infuse education with a feeling of both accomplishment and joy fuels a major portion of the current dissatisfaction with the college experience. Considerable time and effort are necessary to earn an excellent education, but student misery should not serve as the foundation for that process. Learning needs to create satisfied smiles rather than yawns or tears.

Finally, consider for a moment the word "I" which appears seven times in my fly-on-the-wall answer. Development of student self-reliance is always at the forefront for me. Independence should be an essential purpose of a college education. None of us can accompany students through life serving as their always-present guru. They must wean themselves from all of us so they can challenge the world on their own terms. If students believe success originates from

their wise and mystical teacher, courage to charge forth alone is hard to generate. More than 2,500 years ago, the Chinese philosopher Lao Tzu observed, "When the best leader's work is done, the people say, 'We did it ourselves!'" The same is true of great education.

College teaching can be a genuine ego trip. Students constantly look up to us as brilliant experts. We all thrive on that adulation. The feeling is gratifying, but it is a trap to avoid. Students need to leave our classes with a sense of their own power and potential. "See how well you figured that out" is one of my favorite comments to students as is, "You are more than capable of arriving at a solution to this problem without my help."

Fly-on-the-wall goals provide direction for every aspect of teaching. My sentences (with their five key words) work well for me, but you and I are different. We are unique personally and in our teaching styles. In the 1970s, Ricky Nelson recorded the popular song *Garden Party* that contained the insightful line, "You can't please everyone so you gotta please yourself." That advice is especially relevant in choosing the fly-on-the-wall response you want to hear from your students at the end of the last class session.

On the final day of the semester, what do you hope to hear your students say as they leave the room? The decision is up to you. When you arrive at a satisfactory answer, it will serve to guide you in creating a learning process to achieve this goal.

Story Two: Developing Puzzles That Stimulate Critical Thinking. I have talked throughout this book about using puzzles as the basis for class discussions. Teachers who adopt this approach face two challenges. First, they must convince students to take each assignment seriously. Students are often unsure about what each new teacher wants and might view the first few examples as merely warmup exercises. From Day One, I need everyone to be ready to analyze and debate the information presented. Second, teachers must learn how to create puzzles that meet their educational objectives. From my own experience, the production process requires considerable time and thought, practice and more practice.

A few weeks before the semester begins, I email my students to explain the strategy I use during class sessions. Not every assigned question is a puzzle, but many are. I want them to understand why preparation and participation are essential. My goal is not to focus on what students will remember but rather what they will be able to do with their knowledge.

> Even if you do not look at any other email from me, please read this one carefully because it explains the whole purpose of everything we do in class. During the semester, I will present you with numerous weird, odd, bizarre situations that require action. Often, we address questions where no perfect answer exists. In every case, the class will work together to arrive at a viable solution or way forward that we can justify. The process requires analysis and judgment, but, with a little guidance, you are more than capable of success. We will follow this routine each day throughout the semester. I want you to become experts at addressing challenging questions so you can continue to do that in life

> after college. Therefore, on every test, you will receive a new set of weird, odd, bizarre situations that require action. Ultimately, I want you to develop reasoned responses for problems you have never previously encountered. That shows us both that you no longer need my help. This class is not about memorization. It is about analyzing, understanding, and applying. We start this process on the first day. Be ready to learn. Be ready to have fun.

The same email goes on to provide additional guidance about the kind of thinking I want.

> Two days in advance of each class, I distribute "starter" questions and puzzles that serve as the basis for our analysis. I never lecture. Class time is a conversation, a debate, an argument, or—more likely—all of these. If students struggle in my class, it is usually because they arrive at class inadequately prepared to participate. They start the class at a severe disadvantage, already well behind the other students. Learning requires personal involvement and that necessitates a serious level of preliminary work. Assume that I give the class the following story. "It is 1825 and John Adams and Thomas Jefferson are sitting in a bar having an earnest conversation about the United States and its future. Describe one possible conversation that these two former presidents might have."
>
> I am not interested in known facts like when they served and what their main accomplishments were. That sounds too much like a basic Google search. I want deeper thinking. For example, Adams might have asked, "How will our country ever stop the curse of slavery?" How do you think each man would respond? Or Jefferson might have started with, "Our country is nearly 50 years old and times do change. How long do you think our constitution will last before it will need to be completely rewritten?" Those questions are fascinating. What others might these Founding Fathers have explored?

Is this advance message sufficiently clear? Am I providing my students with the guidance they need to start moving toward success? Am I enticing them to become actively involved in their own education? If I taught literature, is this approach a viable way to explore the works of William Faulkner and F. Scott Fitzgerald? In biology, could I structure similar class conversations around the evolution of iguanas and sea lions? I have no proof, but I believe I can create weird, odd, bizarre situations for virtually all courses, logically sequencing those questions to engage students and guide them to a level of understanding where they can make their own judgments.

> We have recently examined a wide range of Italian Renaissance Art. Assume in 1498 (the year of Savonarola's execution), a stranger is studying *Primavera*, one of the most influential paintings of all time. A 15-year-old Raphael is also examining the work. The artist Botticelli walks in and the stranger shouts at him, "You are going to rot in Hell for creating this painting!" At our next class meeting, tell us why the stranger might have

felt this way? How should Botticelli have responded to his critic? What do you think Raphael might have had to say about the work?

I have no reason to believe this meeting took place or that Raphael was upset. However, the hypothetical scene creates an intriguing puzzle, one that should elicit a wide-ranging class conversation about both artists and this monumental work of art. If the students have prepared properly, the amount they absorb from the discussion will help them develop the ability to critically evaluate great artists and their works even after they leave school.

On a subsequent test for the above class, I could pose several related questions to assess the students' ability to apply their understanding of these two artists within the context of Italian Renaissance Art.

--Assume you construct a time machine and use it to visit Italy in the year 1510 just before Botticelli's death. Would you choose to hold a conversation with Botticelli or Raphael? Why? What questions would you ask?

--Despite a considerably shorter lifespan, many scholars rank Raphael as a more important artist than Botticelli. Do you agree? Explain your answer.

--Although not completed until a few years after 1498, how might Raphael have reacted to the *Holy Family* painted by Michelangelo (with several nude men lounging in the background)?

--Assume that before his death, Botticelli is assessing a controversial masterpiece created by a now-adult Raphael (perhaps the *Three Graces*). What do you think the elder artist would have said about this work?

For me, such discussions are the essence of teaching. They provide the opportunity for a rousing classroom experience that studying notes or reading a textbook cannot replicate. Students master the subject matter not through a lecture but rather by analyzing carefully constructed puzzle problems that challenge them to find a logically considered response.

I never create or assign puzzles randomly. One of the first teaching essays I ever wrote compared student learning to the crossing of a pond on stepping-stones. If the stones are sequenced properly, the first leads the walker to the second and then to the third and so on. The stones must be set at a proper distance from each other so people can bridge them without stress. If the required leap from Question A to Question B is too difficult or not a logical progression, students will grow frustrated. If the distance between questions is too closely spaced, students become bored and lose interest.

The teacher must gauge both the ordering of the problems and the increase in knowledge that is necessary to move from one to another. Stones scattered arbitrarily in a pond are unlikely to be helpful. However, if each stone sits at the appropriate spot, people of all ages can stroll easily from one side of a pond to the other.

Furthermore, no matter how interesting or innovative, each assignment must have a meaningful purpose. Class time is limited. Debating the number of angels who can dance on the head of a pin might be fun, but it is a waste of time. In my classes, puzzles must meet at least one of the following four objectives or be eliminated.

(1) - The problem helps students identify and learn basic information about the material being examined. At the start of topical coverage, assignments should assist students in developing a strong foundation level of knowledge. "Assume you are a book reviewer for a large newspaper. The year is 1961 and you recently received an advance copy of a new novel titled *Catch-22* by an obscure author named Joseph Heller. Create a short review of this work that includes four or five highlights that readers of the newspaper need to know to assess whether they want to read this new work of fiction." I like questions that ask students to evaluate what they believe is most important. Having to make and then explain a choice requires thinking that keeps students engaged with the assignment. To stretch this introduction, I might also direct them to provide a few general judgments. "This novel was released at a transitional time in the history of the U.S. Some readers of the newspaper voted for John Kennedy for president in 1960. Others voted for Richard Nixon. What might a John Kennedy supporter find to like about *Catch-22*? What might a Richard Nixon supporter like?" Here, the teacher wants students to view the work from two distinct perspectives, creating a more advanced assessment. At such times, I like to say that students are building a storehouse of knowledge that will serve as the basis for more complicated judgments.

(2) - The problem helps students appreciate the significance of basic information. These assignments are more theoretical because I want the class to drill below the surface of the factual knowledge. I often require students at this point to consider hypothetical situations so that questions are not restricted to practical reality. "Assume you live on the planet CryptoNight. That world is like Earth in every way except that its inhabitants do not understand the concept of 'future uncertainty.' They talk about the present and acknowledge the past but never discuss the future. To them, the future is unknowable, so they simply wait for it to happen. Our class is studying *Gone with the Wind*, a novel that ends with the often-quoted words of Scarlett O'Hara, 'After all, tomorrow is another day.' The author, Margaret Mitchell, returns to this theme at key moments throughout the book. What changes might have been necessary in the structural narrative if she had written her work on the planet CryptoNight?" This puzzle has no basis in everyday life, but it can initiate a class conversation about the effect that future uncertainty has on the creation of almost any work of fiction. We all realize that situations change over time and mentally factor that uncertainty into our every action. However, in a different culture or, perhaps, on a distant planet, the teacher can assume away that reality to better consider the effects of specific influences. Like a science experiment, teachers can initiate this type of theoretical conversation using the curiosity

question, "What would happen if we changed . . . ?" Such puzzles open the imagination and lend themselves to excellent, often animated discussions.

(3) – <u>The problem addresses issues that are practical to the students' lives.</u> Learning can be purely theoretical. Nevertheless, we all must function as adults within society. Thus, some puzzles should have a real-life application. Students use their understanding of a subject to respond to an issue they might encounter in their lives. Education is more meaningful when it connects to us personally. Such assignments help provide us with the critical thinking skills needed to thrive as thoughtful and well-adjusted adults. "Assume you meet a favorite elderly aunt at a family reunion. She mentions that she recently read *The Scarlet Letter*. She explains that the story had a profound effect on her opinions about abortion laws. Before commenting further, she is called away by another relative. Hawthorne's novel of Hester Prynne and her illegitimate daughter might have moved her to become either pro-choice or pro-life. Pick one of these possibilities. Describe how reading *The Scarlet Letter* could have caused your aunt's beliefs to change in connection with this controversial issue." The assignment here takes a magnificent work of literature written more than 170 years ago and ties it directly to one of the most contentious political and moral debates of our time. I cannot think of a better, more practical approach for considering the real-world implications of great literature.

(4) – <u>The problem serves to reinforce or extend understanding.</u> These puzzles ask the class to take recently analyzed information and make use of it in a new and more complicated manner. All students need reinforcement to solidify and expand their knowledge. In describing Aristotle's beliefs, Will Durant writes, "We are what we repeatedly do. Excellence, then, is not an act, but a habit." That is the nature of learning. A creative puzzle can both reinforce and extend understanding. "We recently read and discussed *Madame Bovary*, a book written by a French author (Gustave Flaubert) and published in 1856. It concerns a woman, her husband, and her lover. In despair, she commits suicide. Our current book is *Anna Karenina*, a book written by a Russian author (Leo Tolstoy) and published in serial installments between 1873 and 1877. It concerns a woman, her husband, and her lover. In despair, she commits suicide. Identify key events in *Anna Karenina* and compare them to similar events previously discussed in *Madame Bovary*. Describe how the two narratives might have been influenced by (a) being written by different authors, (b) being written in different countries, (c) being written in different times, and (d) being published in different forms." The students' understanding of the first work deepens as it forms the basis for analyzing the second.

As a new teacher in the 1970s, I assigned a few practice questions at the conclusion of most class lectures. I selected them quickly from the end-of-chapter material in the textbook to serve as the students' homework. Most were what I now call "identification problems" such as, "When is Guy Fawkes Day?" or, "What is the seventh most abundant element in the Earth's crust?" I

asked students to read a chapter and then answer the specified questions. Most likely skimmed through the textbook until they chanced upon facts and figures that seemed to relate to the assignment. They probably copied down the information hastily with no real thought. Why do more?

These questions might have been foundational, but they were rarely theoretical, practical, or reinforcement. My hope was that students gained a familiarity with the material and terminology that I could build on during the subsequent class lecture. Thinking was never a consideration. In hindsight, I am not sure why I expected students to take these assignments seriously. If they were unprepared for in-depth class discussion, the fault was mine. I was not providing them with appropriate guidance. I had not placed the stepping-stones properly.

Today, critical thinking is the primary emphasis of my teaching. I never make any assignment until I am happy with the benefit I expect to see from the students' efforts. Otherwise, they are being asked to waste time. I follow an approach designed to push them beyond textbooks and memorization to where they can identify relevant information, analyze it, and make wise, logical judgments—both theoretical and practical.

What puzzles do you currently use in your teaching? Any scenario qualifies for that title where seemingly random information must be studied to arrive at a decision or other application. These puzzles can be foundational, theoretical, practical, or reinforcement. What topics could you address in this way to help students grasp and apply the core concepts of your course? Experiment. Write a few puzzles for your class and evaluate how well they work.

Story Three. It Is Not Supposed to Be Easy. The last story is short, but, in my opinion, has a powerful message that should be kept in mind especially when we become discouraged with our lack of progress. Over the years, I have shared this tale with large faculty groups at conferences and individual students in my office at school.

We often hear about people who accomplish amazing feats in athletic events, mental and physical competitions, artistic endeavors, or the like. We watch, almost hypnotized, as these actions are repeated endlessly on 24-hour news or sports channels. Typically, whether it is the Scripps National Spelling Bee or the Super Bowl, we only observe examples of this greatness from a distance. Patrick Mahomes throws a game winning pass. Simone Biles performs an unbelievable gymnastic routine. Shohei Ohtani or Aaron Judge hits a mighty home run. Our reactions run the gamut from admiration to envy. Their achievements are flawless with an easy grace. Our vantage point gives us a false sense of the amount of time and effort that must be exerted to achieve such a high level of success. We think about hours and days. They invest months and years.

I believe every teacher (and student) can achieve greatness in one form or another. However, no one should be naïve. Such accomplishments require real work.

In 1992, the movie *A League of Their Own* was released starring an eclectic cast including Tom Hanks, Geena Davis, Rosie O'Donnell, and Madonna. The action is set in the summer of 1943 during World War II and revolves around the creation of the All-American Girls Professional Baseball League. A key scene takes place near the end. Davis is the star player on her team. Hanks is the manager. The season has been long and difficult. Travel in those days was especially grueling. Although the team is nearing the league's World Series, Davis's character is tired and misses her husband. She chooses to quit and go home. Hanks confronts her about the decision to abandon her team. She responds, "It just got too hard." That feeling is certainly one that we all have now and then. Striving for success can be difficult and no one receives any special guarantees. On dark days, giving up and quitting sounds appealing.

Hanks looks at her for several moments and then delivers a short response. His lines are wonderful and easy to find on YouTube. I watch the scene whenever I need an emotional boost. It only takes 2 minutes and I always feel better. These words should be on everyone's list of great movie quotes.

It's supposed to be hard.
If it wasn't hard, everyone would do it.
The hard is what makes it great.

Teaching is never going to be easy, not for you, me, or anyone else. The challenges are enormous and new problems pop up every day. Many teachers eventually retreat and settle for average. Their improvement hits a plateau, and they never get any better. I understand that. However, never forget those lines.

--"If it wasn't hard, everyone would do it."

--"The hard is what makes it great."

In my mind, teaching is the best job in the world. And, truthfully, the hard is what makes it great. <u>On those class days after a long, difficult semester when every student is prepared and they all respond thoughtfully so that true learning takes place, you will experience a thrill that is impossible to replicate.</u> If you start with small successes and gradually improve 5 percent every year, those moments of euphoria will become ever more common. The job is difficult, but that alone is no reason to accept anything from yourself less than greatness.

What do you do when you become discouraged and frustrated? Teaching is rarely easy. Most great teachers develop a strong support system to help them maintain their enthusiasm even on the toughest days. Perhaps you and a couple of colleagues can go out every few weeks to discuss the latest challenges you have encountered. In the dedication of this book, I talk about the importance to me of weekly trips to Taco Bell for lunch and conversation. I also maintain a file of notes from former students that I read as needed to remind me of how important this job can be. Many universities have centers for teaching and learning that can provide respite and

assistance. You are a teacher, but you are also a human being. Every teacher has many stories to tell but none are more important than those that provide ongoing support for themselves and others.

LESSON TWELVE

TIME TO SAVE THE PLANET

WHAT ARE THE SEVEN SOLUTIONS TO THE PROBLEMS OUR WORLD FACES TODAY?

> *Question. Professor M has been teaching in college for several years. She had a promising start. Her classes were well conceived and organized. She was innovative and attempted new approaches on a regular basis. Students appreciated her caring attitude. Unfortunately, her pay raises have never varied from the school average. Other than a few kind notes from former students, she has received no recognition for her diligent work. Her dean seems uninterested in her teaching. One evening she is working on lesson plans for the following day. She and the students will be discussing an essential concept. A friend calls to invite Professor M to dinner and a movie. She declines the invitation and suggests going out on the weekend. The friend responses, "You already know that material ten times better than your students. You have taught it so often. The students won't know or care whether you spend five minutes or three hours preparing for class. Let's go out and have a pleasant evening." Professor M feels a need to finish her preparation, but she also wonders if she is wasting her time. What encouragement would you give her, or do you believe the friend is correct?*

Saving the World. Better teaching leads to better student learning. Better student learning leads to a better world. The importance of these connections is hardly a startling epiphany. Nevertheless, over time teachers risk letting the process become familiar and mundane. It is simply what we do every day. We can lose sight of its inherent importance. Every day we enter a classroom, we change lives for better or worse. We inspire. We explain. We bore. We frighten. We advise. We embolden. We motivate. We challenge. We bring on stress and trepidation. We create excitement and joy. We build confidence. We damage self-esteem. Our influence is sometimes obvious and other times practically invisible, but it is always present. In working with students, I subscribe to the Hippocratic Oath, "First, do no harm." Close behind is my personal oath, "Make a positive difference." This sentiment applies to each of my students, and through them, to the world and its inhabitants.

Several years ago, I had the honor of addressing the opening convocation at a nearby college. A new academic year was beginning. A strong surge of energy can help administrators, faculty, and staff ready themselves for their annual battle to stamp out ignorance. However, I began my

remarks that day with ominous words projected on several large video screens placed strategically around the room.

Our World Faces a Host of Devastating Problems!

To reinforce this dire warning, I meticulously enumerated well-known issues that challenge the very existence of our planet: pollution, racism, religious and other types of intolerance, pandemics, poverty, sexual harassment, terrorism, income inequality, reliance on fossil fuels, climate change, political polarization, and many more. Faced with this litany of extreme troubles, the tone in the auditorium turned markedly somber. As I droned on, pessimism and doubt began to appear on faces that had been smiling brightly only seconds earlier.

With a click, a second slide appeared to reassure the group that a less dire future was still possible. Mass annihilation could be avoided.

Seven Solutions Exist for the Problems Our World Faces Today

This declaration promises specific, available remedies. The world still has hope regardless of the magnitude of the impending dangers. The answers even come in a comforting set of seven. Audiences prefer information listed as convenient bullet points because the material is easier for our minds to organize and consider. Experienced speakers at commencements and after-dinner programs are well aware of the benefit of a numbered list.

My audience immediately became more upbeat. By following the seven steps I would soon propose, the world could avoid the apocalypse. As the educators in attendance listened to this increasingly positive message, smiles began to reappear. No one wants to feel hopeless. For a few moments, I stressed the vital importance of my awaited solutions. The mood in the room lightened appreciably. Confidence returned. Humanity could conquer its problems but only by taking advantage of these seven steps. Notebooks opened as listeners began to jot down the numbers 1 through 7 in anticipation.

I paused for a long moment. As the audience stared attentively, a final slide flashed on the various video screens and, indeed, seven words identified the essential secrets to our salvation.

Education Education Education Education

Education Education Education

A silence ensued for several seconds but then the audience began to applaud in relief. Instead of feeling trapped and vulnerable, they realized the crucial role they had to play in saving the future. Every job in education makes a real difference. We all know that, but we still need our basic importance reinforced. Self-doubt is a human characteristic that always lurks near the surface. As the group anticipated the coming academic year, the true value of their work was undeniable, and I wanted each member of the audience to appreciate that fact.

The Most Powerful Weapon. At any point in time, students in college represent our next generation of scientists, poets, doctors, lawyers, psychologists, teachers, artists, engineers, mathematicians, writers, and the like. If schools fail to do a satisfactory job at the educational process, they are literally robbing (if not destroying) the future. Where will the medical, scientific, artistic, and so many other discoveries come from during the next few decades if today's faculty, administrators, and staff do less than an outstanding job of guiding college students? Who will create society-changing breakthroughs in the coming decades if we are unable to engage students in the wonders of our topics? Would a cure for cancer or a more reliable source of renewable energy exist today if colleges had done a better job 30 years ago? That is a valid and depressing question.

If learning breaks down today, individual students are damaged. Worse still, our entire society risks irreversible harm. Many of our brightest people attend college. If those students are not inspired, if they are not challenged intellectually, if they are not pushed to think and reason, the schools and their teachers are effectively putting a severe limitation on what society can accomplish in the decades to come.

The lead-in for my convocation address was not a public relations ploy designed to please a gathering of educators. By identifying seven solutions for the world's problems, I was expressing my honest opinion. How do we end poverty? Any answer must begin with better education. How do we eradicate racism and religious intolerance? The only viable possibility is a significant increase in the availability of quality education. The human race cannot overcome its massive problems with guns or other forms of coercion. Ignorance is no answer. From disease to pollution, from war to hunger, the peoples of the world desperately need more and better education. It provides the core foundation that will enable the survival of our civilization. If a genie pops out of a magic lamp today and grants you a single wish, remember that a radical increase in the number of adequately educated people is the only serious path for solving our planet's problems. Because a genie is unlikely to appear, educators must do their part to make this wish come true.

I am hardly the first person to recognize the essential role education plays in a world of more than 8 billion people. On a trip for a speaking engagement, the words of a truly inspirational leader brought this message home to me even more strongly.

In creating live teaching programs, I have developed a habit that is practically a superstition. During the week or two prior to a scheduled event, I gather various ideas and suggestions and arrange them to form a rough outline. Extensive editing proceeds until the program seems logical, informative, and interesting. I then hide in my basement to practice aloud until I feel comfortable with my message. Confidence is vital for a speaker but carrying that attitude onstage only comes from investing the time needed to be well prepared.

Despite this carefully orchestrated process, the final version of my remarks is never quite finished. One space is left blank until the last moment, a little donut hole that remains to be filled. I include no thoughts, suggestions, or ideas for that part of the talk. Then, on the evening

before the program, I search for last-minute inspiration to complete the presentation and connect me with the audience. Wandering the internet, I search for an appropriate story or quote that I feel called to share. I want to introduce a perceptive reflection that I have not discussed with any previous group. For me, this strategy adds improvisational freshness to the program. I am forced to think deeply about teaching and student learning in the hours just prior to speaking. This tactic puts me in the proper mood.

A few years ago, I flew to Cleveland for an annual conference attended by approximately 80 college teachers. The meeting was in April, but a snow shower reminded me that I had temporarily abandoned the southern part of the U.S. That night in some hotel room, I began a Google search for an opening message to insert into the vacant spot in my notes. Almost immediately, marvelous words from Nelson Mandela appeared on the monitor. I looked no further. He and I clearly shared a deep appreciation for education and its potential effect on the future.

Education is the most powerful weapon which you can use to change the world.

The next morning, I began my talk with Mandela's observation. His strong belief in the work we teachers do every day set the perfect tone. Teaching is not merely an interesting occupation. <u>If done properly, education is a force capable of improving the lives of billions of people on this planet.</u> I doubt anyone reading this book will argue that point.

At the end of my Ohio presentation, I suggested that the group start changing the world. I urged them to create a "5 percent club" to meet at the same conference the following April to share a year's worth of stories about the Three E's in their teaching lives: experiments, evaluations, and the resulting evolution. Improvement simple never happens by accident. Agreement on the need for better education is wonderful but achieving that goal is only possible with an active commitment. We know that 80 teachers can accomplish more than 8, 800 can surpass 80, and so on. If teaching is genuinely important, why are we not doing more to support each other and further the cause? If 8,000 or 80,000 or 800,000 teachers set a goal today to become 5 percent better during the next 12 months, the world would soon be a better place. That is not a delusion. That can become a reality. That must become a reality.

I occasionally begin my classes by proposing, "Assume we have a time machine." The ability to travel through time opens considerable room for a class to debate influences and outcomes. When you next stand in front of a class, assume you have a time machine that allows you to move 10-15 years into the future. You can then observe the current students as they move through their daily lives. How would you want your teaching to flow through these now former students and influence the people they encounter. Ultimately, that is the wonder of education. Yes, the students themselves are altered by your classes, but depending on the strength of the lessons, the influence carries through for generations that follow.

LESSON THIRTEEN

TEACHING LIST NUMBER THREE

THE TEN COMMANDMENTS FOR EXCELLENT TEACHING

WHAT DO YOU EXPECT FROM A GREAT TEACHER?

I visited San Francisco on business a few years ago and found myself with several hours of free time on a pleasant afternoon. To amuse myself, I wandered around the city playing one of my favorite people-watching games. As I walk from place to place, I assume that I am a company executive who has numerous jobs to fill. Basically, I need one of everything: one bus driver, one plumber, one waiter, and the like. Walking in and out of stores, I try to identify specific people I would choose to hire. Who catches my attention by performing a particular job especially well? More importantly, what traits did the person exemplify that were impressive? What drives people to act in an excellent manner as they carry out their daily jobs? Greatness fascinates me, especially when it involves the mundane tasks of life. I play this game because I want to understand the attributes and actions I should emulate as I go about my days.

From my perspective, only a few people appear to be terrible at their vocations. The great majority grade out as average. That is hardly a shocking revelation. The remainder (an unfortunately small number in many cases) are excellent according to any standard of measurement. These people are so good at what they do that I can watch them work and become entranced. I want to stand up and applaud. I want to present them with an award.

How does Chef A manage to prepare dishes that are so much better than Chef B? Why do patients flock to Dr. C with obvious reverence while an equally bright and educated Dr. D has trouble filling a daily appointment schedule? What is the key to such greatness?

While in San Francisco, I had to rush across the city at one point and then hurry back to my work. The driver of the taxicab was fabulous. He stayed calm in heavy traffic and was both friendly and helpful. I liked his attitude. I liked his efficiency. I liked his calm demeanor while navigating through a twisting maze of cars. I would have gladly hired him for my company. If I ever drove a taxi, I would want to be like him.

Later that day, I slipped into a deli (a large, well-known chain) and tried to order a sandwich. Four employees lounged behind the counter. Three never glanced at me even once, never smiled, never seemed to care if I lived or died. They clearly did not appreciate a customer bothering them for a meal. The other employee looked up with a kind smile and asked how she could be of assistance. She listened carefully to my order and prepared the sandwich exactly as requested. She was quick and efficient. She seemed happy to be of service. She did her work with a genuine sense of enthusiasm. Her attitude

made my day brighter. I would have gladly hired her for my company. If I ever made sandwiches for a living, I would want to be like her.

On my flight back across the country, this game began to stir my imagination. I started playing with the assumption that I was responsible for hiring a new teacher at my school. If I wanted excellence, what qualities would I hope to see in the chosen candidate? The question intrigued me. Somewhere over Nevada or Utah I began to create a list of characteristics I would seek if given the task of hiring one exceptional classroom teacher.

Because I stopped at ten, I began to refer to the results as my Ten Commandments of Teaching. I could have added several more, but ten seemed like a reasonable number.

What Do You Think? Before reading further, I have two assignments for you. First, ask yourself the same question I did. What are the characteristics you would want in hiring a new faculty member at your school, an individual who would qualify one day soon as a great classroom teacher? Be as specific as possible. "Someone who can teach well" or "someone who likes students" does not provide usable guidance. Second, based on what you have read so far in this book, see how many of my characteristics you can anticipate. If I have communicated clearly, you should do well.

Here is the list I finalized by the time the airplane touched down in my hometown. Because I like countdowns, I will begin with Number Ten and work my way to Number One.

NUMBER TEN—*Will never agree when students claim, "I am stupid," "I am lazy," or "I cannot do this."* Somewhere during their long educational journey, students apparently come to believe in some perceived advantage in confessing personal shortcomings. "I read slowly," "I'm not good at math," or "I have trouble taking tests" might well be true. However, those descriptors should not become ready-made excuses used to take the sting out of any poor performance. "It is not my fault. I am not good at this type of mental activity" is a rationalization I have heard hundreds, maybe thousands, of times over the years. A good response is, "I have watched your work this semester in class, and you are a very capable person. If we approach this material in the right way, you should do fine. Let's work together. I will help you." Students certainly face many challenges, but great teachers never let excuses distract from the goals of maximizing student understanding and helping them make effective use of that knowledge.

NUMBER NINE—*Works to teach 100 percent of the students and not merely the top 10 percent*. Ask a question at the start of each class for an entire semester and the same raised hands will likely appear every time. (Think of Hermione Granger from the *Harry Potter* books and movies.) Ten percent of students want to participate (or impress the teacher) and the remaining 90 percent are willing to let them have that pleasure. Allowing those 10 percent to dominant class discussion is an easy crutch for any teacher. A question is asked, and that small group provides an answer. Those few students talk

while the rest of the class takes notes. Great teachers manage to involve every student. Ten percent of the students should do ten percent of the talking.

NUMBER EIGHT—*Cares about each student as an individual*. One of the hardest challenges for any teacher is to walk into a room of 10 students or 50 students or 400 students and recognize that they are separate human beings and not a single, unified group with one personality, one level of ability, and one work ethic. They are not interchangeable robotic components. Each student comes to class with a unique set of talents and challenges. Teachers today seem to have fewer one-on-one opportunities with students that help us understand them better as distinct individuals. Nevertheless, we need to realize that each person in the class is unique, a human being with a personal story unlike anyone else. More than a decade ago, I tried to explain this concept in an essay I wrote for the alumni magazine at my university (in recognition of my selection as a "tough love" professor).

> A good basketball coach adapts to the talents of his or her players. A good teacher does the same. You cannot take an identical approach with every student. Some love to be pushed and pushed hard. They enjoy "in-your-face" challenges. Others are more fragile. You have to coax and nurture them. So toughness comes into my class where toughness is necessary. You teach each student, not each group. However, every student needs to be willing to prepare and to think. That is not negotiable.

Great teachers appreciate the students as individual human beings with their own particular needs.

NUMBER SEVEN—*Stays as far away from memorization as is humanly possible.* With modern day technology, education needs to focus on understanding and using information rather than memorizing it. I occasionally have debates with colleagues about whether any piece of information is so vital that its memorization should affect a student's grade. As of this moment, I remain unconvinced. Exceptions do exist. Memorizing a soliloquy from Shakespeare in order to appreciate fully the beauty of those words is a wonderful assignment. For most other cases, I fail to see that any benefit is derived from memorization. Students should learn how to use information. That includes understanding, appreciation, calculation, explanation, analysis, manipulation, and the like. Those skills are the ones to be tested. Great teachers do not let memorization influence grades.

NUMBER SIX—*Communicates clearly throughout the semester.* The learning process quickly falls apart if students come to believe the teacher's treatment is unfair or the course structure will not work. As in so many aspects of successful education, clear and honest communications are of paramount importance. Teachers need to explain the reason for every critical decision so that even the hint of unfairness never rears its ugly head. "I know this assignment was challenging, but here are specific points I was looking

for from any paper that deserved an A" is a message that will diffuse a lot of student concern before it can escalate. Great teachers make certain that students understand what is required and the reason for each action. Students cannot read your mind so make every communication clear.

NUMBER FIVE—*Is able to engage students so that at least half of the energy for learning comes from them instead of being forced on them.* Teachers often feel a need to provide 100 percent of all classroom enthusiasm. That is exhausting and rarely effective. Many students are content to sit passively and take extensive notes as the teacher spews out knowledge. A tape recorder could replace those students with only a minimal effect on the class. Based on their educational experience, many students simply assume that silence is the appropriate and expected demeanor. In a college class, no one should be allowed to be a passive observer. Active participation is conducive to deep learning. Great teachers say little because the students carry on much of the discussion.

NUMBER FOUR—*Encourages and guides students to keep working on the materials covered in class until a strong level of understanding is achieved.* In explaining the Education Diamond, I have previously written about Swiss cheese knowledge. Students need assistance in recognizing the existence of those holes in their understanding and help in knowing what to do about them. Too often the learning process ignores this problem until a student is sitting in your office crying about a poor grade on a recent exam. "I knew everything so well when we covered it in class."

NUMBER THREE—*Is able to impart a sense of excitement about the material.* I have known teachers who could make "Watching Paint Dry on a Basement Wall" seem thrilling to students, worthy of serious study and debate. I have also sat in agony through classes with other teachers who could turn Niagara Falls and the Grand Canyon into the most mundane topics. If a teacher shows no enthusiasm, why should any student become interested? Human nature dictates that students will work harder if they feel a sense of significance or value about the material, "I am excited to show you why I find the subject of today's class interesting and why it might make your life better down the road." Great teachers share the relevance they have discovered buried in every topic.

NUMBER TWO—*Has a true sense of what needs to be achieved.* Any course can be transformative when the teacher has great goals. If a teacher has a clear understanding of how students should be different on the last day of class, the entire semester can be a special experience. Well-articulated goals provide a beacon to direct every class action. However, be as precise as possible. "To cover the material" is a useless goal. "To assist students in learning the subject matter" provides no guidance. "To help my students appreciate Shakespeare" is an improvement but only a first step. Great teachers know the transformation they are trying to create and use that knowledge to develop a learning process that will successfully guide them to this vision.

NUMBER ONE—*Walks into class every day adequately prepared.* No one teaches well by throwing together lesson plans at the last minute. No teacher becomes great by reading Power Point slides to students. Whether a person is teaching for the first time or the 52nd year, every day is a unique challenge. Preparation is essential. Because coverage is often repetitive from one semester to the next, preparation can become boring and seem unnecessary. That is a psychological trap. Over the years, faculty need to maintain a serious level of self-discipline so that they will be ready for every new class. The teaching attribute that often fails first during a long teaching career is the willingness to invest the time needed to be well prepared. Even after decades on the job, great teachers create lesson plans with the same care and excitement that they had on the first day they ever taught.

Okay, what would you add or delete? This list was merely what I came up with one evening on a plane flight across the U.S. I believe that any person who follows these Ten Commandments will have a wonderful chance of becoming a great teacher.

LESSON FOURTEEN

IT IS NEVER TOO LATE TO BECOME A GREAT TEACHER

ARE YOU IN THE IMPROVING GROUP OR THE PLATEAU GROUP?

Question. *Professor N has been teaching for years. During the early part of her career, students found Professor N to be an interesting, dedicated teacher. However, in the last few years, she has come to view several key parts of her job as tedious. Consequently, she allocates less time to daily class preparation. Her lesson plans that were fresh and innovative now rarely vary from semester to semester. The joy of exploration that had at one time been apparent in her teaching is now missing. Professor N has begun to refer to her students as "snowflakes" because they seem to lack the motivation she noted in earlier classes. She feels that many of the students are unwilling to put even a minimum effort into class assignments.*

Professor N's department chair is preparing annual faculty evaluations. He would like to reverse the slide he perceives in her teaching, so he schedules a one-on-one conference. He believes she is still capable of greatness. If you were the department chair, what would you tell Professor N who is a tenured, full professor?

The Butterfly Effect. The *Collins English Dictionary* defines the butterfly effect as, "The idea, used in chaos theory, that a very small difference in the initial state of a physical system can make a significant difference to the state at some later time." (Retrieved August 12, 2023)

During the centuries that followed the work of Isaac Newton and Pierre-Simon Laplace, a popular belief held that the universe was a mechanical system with established rules much like the workings of a clock. Results were never random. Every outcome was predictable if the observer merely had sufficient data for a complete analysis. As Laplace wrote, "All the effects of Nature are only the mathematical consequences of a small number of immutable laws."

In 1963, Edward Lorenz, a professor at MIT, disputed this premise. He argued that miniscule changes during key early stages of a process can cause major and otherwise unexpected alterations in eventual outcomes. As an illustration, Lorenz speculated that the flapping of a butterfly's wings in Brazil might ultimately lead to a tornado hitting down in Texas. Hence, the term "butterfly effect" came into existence, a tiny action at the start of a long series of events creating unanticipated changes in the consequences. Such an impetus for change is virtually invisible, small and seemingly inconsequential. Only by meticulously retracing a long series of subsequent events, like following a trail of breadcrumbs backwards to the entrance of a forest, might we discover what really altered the course of history.

During the past 52 years, I am certain my career has been affected by numerous butterfly effects that were too small for me to notice. However, I am aware of one that had serious implications. The creation of this book is the result of a personal encounter that I like to think of as a butterfly effect. In 2007, I turned 60 and finished my 36th year as a college teacher. The remainder of my professional career seemed predictable, practically inevitable. I loved working with students but, according to the calendar, the end of my time in the classroom was approaching. After teaching a few more years, I would retire to plant flowers, cash Social Security checks, and sit in the shade watching my grandchildren play. Who could suspect that the butterfly would flap its wings and alter those anticipated results?

At that time, knowing of my obsession with education, a friend recommended the classic book *What the Best College Teachers Do* by Ken Bain. Reading that work had a profound effect on me. A few sentences on page 3 formed the butterfly that changed my future.

> It has occurred to me that teaching is one of those human endeavors that seldom benefits from its past. Great teachers emerge, they touch the lives of their students, and perhaps only through some of those students do they have any influence on the broad art of teaching. For the most part, their insights die with them, and subsequent generations must discover anew the wisdom that drove their practices. At best, some small fragment of their talent endures, broken pieces on which later generations perch without realizing the full measure of the ancient wealth beneath them.

To paraphrase Bruce Springsteen, I knew Dr. Bain was correct and the notion did not sit well with me. Until that day in 2007, I had rarely shared my teaching experiences in any form or

format. The possibility seemed silly. I teach complex accounting courses. Who would be interested in my thoughts about improving the learning process?

Nevertheless, from that moment, I wanted to have an "influence on the broad art of teaching." In the years since reading Bain's perceptive lament, I have authored more than 320 essays for my award-winning teaching blog, a website that has garnered approximately 700,000 page views. I have composed a free online teaching tips book that received a kind and positive review in *The Chronicle of Higher Education*. I have spoken at opening convocations and closing commencements. I have presented scores of educational programs and participated in webinars, seminars, podcasts, interviews, and panel discussions while continuing to teach fulltime. Those essays, presentations, speeches, and the like led directly to the creation of this book. If I had not reacted to those key sentences in *What the Best College Teachers Do*, none of this would have happened. That butterfly changed the direction of my career.

Here is my point. Even after many years of teaching, people can evolve dramatically, and hopefully for the better. At any age, improvement is possible. No message found in this book is more personal to me. No matter where you are in your career, if your goal is to become a better teacher, you can do it. Teaching is not like a tattoo that remains unchangeable. If you genuinely want to be that teacher your students will never forget, today is a good day to get started.

Assess and Write. College teaching is a fascinating experience, but it is a long way from a vacation in Shangri La. Kumbaya moments between teacher and student do take place but mostly in novels, movies, or television shows. Such storylines are often a naïve portrayal of the hard work that goes into becoming a great teacher. At times during the past 52 years, the job has reminded me of Sisyphus pushing his large boulder up the hill day after day. The job is made up of literally thousands of tests to write and grade, papers to read, and class sessions to prepare. The process repeats endlessly like the tides. In teaching, unavoidable tasks can become deadly dull. Even the most fervent teacher has days when the job feels like a form of torture. No one enjoys watching students sleep instead of participating in a lively class debate. No one relishes intense arguments with students about whether a test deserves a B- or a C+.

Over time, teachers can lose track of the excitement that initially pulled them into this profession. Cynicism can overwhelm optimism. Periodic renewal is necessary to remind us of the wonderful and rewarding parts of this vocation. Improved teaching leads to more joy in the job and that attitudinal adjustment provides vital fuel for transformative education.

Let's get started. If you are reading this book in hopes of becoming a better teacher, here is an opening assignment that I strongly recommend. At least for a semester or two, develop the habit of writing each day or week about your classes. My own teaching began to improve as soon as I created my teaching blog. I am convinced that I benefited 100 times more from those essays than did any of my readers.

Instead of fading out as seemed inevitable at the age of 60, I still love exploring the wide world of teaching, learning, and motivating students. Writing has been instrumental in the continuation

and growth of my career. Do not worry about readers. Write for yourself. If readers show up, that is a bonus.

To this day, I remain on high alert, vigilantly looking for the perfect topic for my next essay. Source material is plentiful. Every action involving students or classes is a possibility. Because of my writing, I have become more observant during my working days. I have developed better awareness of what happens during my interactions with students. Write and your brain will quickly get into the habit of searching through every teaching moment for new subjects to contemplate. What really took place in class today? How well did an experiment succeed? Could a different approach have triggered better results? Did I help the student who came to my office? Why did one student in class learn the material quickly while another equally gifted student struggled?

"Assess" and "write" are two great verbs for every teacher. To start, consider what happens at each point of your Education Diamond. Maintain a diary or follow my lead and start a blog. The process will help you make sense of class experiences. Describing a specific situation in written words turns a vague recollection into an understandable teaching experience. As I have said previously, teachers can always learn more from a room full of students than from any book, including this one. Look around at what you and your students are doing and start writing.

Going from Good to Great. In my case, the butterfly was not quite finished flapping its wings. I needed one additional epiphany to stimulate my thinking. About the time I read *What the Best College Teachers Do*, a colleague left an article in my campus mailbox from the October 30, 2006, edition of *Fortune* magazine with the understated observation, "I thought this article was something you would appreciate." All these years later, the original copy still resides beside my printer. If I ever develop a college course on teaching, this essay ("What It Takes to be Great" by Geoffrey Colvin) will be required reading. Two sentences have become essential to my opinions on humans striving for greatness.

> In virtually every field of endeavor, most people learn quickly at first, then more slowly, and then stop developing completely. Yet a few do improve for years and even decades, and go on to greatness.

The truth of this message is so obvious that it barely warrants discussion, but no words have influenced my view of success more. As a teacher, I obsessively want to "go on to greatness" and wish the same for all other teachers.

Colvin provides numerous examples such as learning to play chess, golf, and the violin and methodically comes back to the same conclusion. Most people manage to attain a level of competence whenever they take on a new activity but never improve beyond a certain point. Their capabilities plateau. Further advancement simple ceases. Apparently, the sheer challenge of becoming better year after year is not limited to humans. Jim Collins has authored an entire shelf of bestselling books (*Good to Great* and *Great by Choice* as two examples) analyzing the difficulty that business organizations face in their attempt to achieve greatness. Whether a business or human, many can get to good but too few overcome the obstacles to become great.

Teaching is no different. A good teacher might stay a good teacher for decades without ever reaching the next level. A poor teacher often remains a poor teacher just as an average teacher can be average for an entire career. Test Colvin's claim for yourself. Rank the teachers you knew 5 to 10 years ago from best to worst based on your perception of their classroom abilities at the time. Next, make the same evaluations for each of these teachers today. Unless your list is unique, significant changes in rank are rare. The top third, the middle third, and the bottom third will remain almost unchanged as years, and even decades, pass. Occasionally, a few teachers do regress. They grow older and lose their enthusiasm or age erodes their talents. However, radical improvements are far too scarce. This inertia needs to change. Teachers should always push themselves upward. Better teaching must become a primary goal of our society.

"Yet a few do improve for years and even decades, and go on to greatness." If your professional life needs a driving force, this one line is worth posting in large letters on the closest office wall. Read those words often and take them to heart. They hold out the hope that none of us is stuck in a state of permanent mediocrity. Later in this article, Colvin provides an especially upbeat narrative, "The good news is that your lack of a natural gift is irrelevant—talent has little or nothing to do with greatness. You can make yourself into any number of things, and you can even make yourself great." <u>You can even make yourself great.</u> Those are certainly words worth remembering.

What is the secret? How does a person "go on to greatness?" More importantly, will you be one of the people who achieves this rare feat? The key for Colvin seems to be extremely hard work made up of hundreds, or even thousands, of hours of practice. He identifies Luciano Pavarotti (opera), Vladimir Horowitz (piano), Michael Jordan (basketball), and Jerry Rice (football) as "legendary for the brutal discipline of their practice routines." He singles out Horowitz as a "demon practicer." In *Outliers: The Story of Success*, Malcolm Gladwell makes a similar claim about the Beatles and their years of grueling practice in Hamburg, Germany, where they honed their music playing almost nonstop in the city's bars and clubs. "The Hamburg crucible is what set the Beatles apart."

Angela Lee Duckworth provides her own observation in a popular 2013 TED talk:

> One characteristic emerged as a significant predictor of success and it wasn't social intelligence. It wasn't good looks, physical health, and it wasn't IQ. It was grit. Grit is passion and perseverance for very long-term goals. Grit is having stamina. Grit is sticking with your future.

I never dismiss the importance of hard work. Few people invest as much time as needed to maximize success. Nevertheless, advice such as "spend more hours" and "develop grit" seem too simplistic. Yes, preparation and practice are essential. My students are always encouraged to put in additional time whenever they are struggling. However, an increase in the number of hours worked is rarely the complete solution. Success in any field is more complicated. Determining how to spend time wisely is the ultimate remedy for a person whose improvement has stalled. If the options are "work longer" or "work smarter," the second choice is more likely to lead to greatness. This book is not about working longer. It is about working smarter.

Have a Jorge Posada Year. For any reader who is not a major league baseball fan, the name Jorge Posada is probably unfamiliar. He played for the New York Yankees for more than a decade. He was the team's starting catcher for 15 years beginning in 1997. From that year until 2006, Posada was a model of consistency. His batting average varied from a low of .245 to a high of .287. Then, in 2007, at the old age (for a baseball catcher) of 35, he hit .338. That was 51 points higher than in any of his other seasons and 61 points higher than the previous year. Experienced baseball players rarely have a complete year where their performance is so radically improved. Deteriorating performance is the norm after the first few years of a player's career.

I have no idea what caused Posada's impressive jump in 2007, but I doubt that it was purely additional hours of practice. Maybe he started watching film of opposing pitchers and became better acquainted with their styles. Perhaps, he worked with a hitting coach and changed his batting stance or began to use a bat with a different weight. Maybe, Posada started a new exercise routine to build different muscles. Although hours of practice are important, the intelligent use of time is essential.

The next 12 months can be a personal Jorge Posada Year where your teaching makes a significant leap forward. No matter how long you have taught, the greatest year in your career should be the one right in front of you. I believe that absolutely. The basic goal is 5 percent improvement, but you can certainly set out to exceed that standard.

Here are a few questions that might help you select steps that will jumpstart improvements during the next 12 months to achieve your Jorge Posada Year.

- How often and in what format could you start writing about your teaching?
- Can you identify a few outstanding teachers whom you might observe in their classes or engage in conversations about teaching? Like Mark Rothko, do you have the perseverance to figure out their magic?
- Could emailing your students each week help them have more faith in you? If so, what message might you deliver in these emails?
- How can you alter your assignments to encourage students to be better prepared for every class?
- Do you have class problems that you could rewrite in a puzzle form to be more engaging to the students?
- Can you reduce the talking you do in class to avoid having a conveyance of information model? How might you encourage reticent students to become more talkative in class conversations?
- Should you allow students to have access to notes during tests? If so, what types of questions will you need to write to encourage the development of their critical thinking skills?
- As needed, can you provide students with additional assignments shortly after class to stretch and reinforce their understanding and help rid them of Swiss cheese knowledge?

I could write more questions, but I imagine you get the idea. Each of these suggestions take time, but they can help if you seek teaching improvement. Choose an action and go to work. The results can help you create a Rube Goldberg Learning Process that works at maximum efficiency for you and your students.

In Which Group Will You Reside? A few months after reading Colvin's essay on greatness, I traveled to Savannah, Georgia, to speak at a conference of high school teachers. I talked with the attendees that day about the assertion that most people quickly stop improving when developing any skill. Nevertheless, a few manage to go on to greatness. I then made what still seems to me to be an obvious reflection on the state of teacher ambition.

> There are two types of teachers. I call the first the "plateau group." Those teachers have settled into a comfortable sameness. Unless some unexpected event happens, they are as good as they are ever going to be. From year to year, their results vary little from the historical average. The second category is composed of teachers in an "improving group." No matter how good these people are, they still work to unlock the secret of future greatness. They push themselves to become 5 percent better every year. They are willing to do what it takes to keep moving forward.
>
> I have come to this auditorium today for only one reason. As teachers, you have a decision to make, and I want each of you to choose the improving group. Absolutely no one must be stuck in the plateau group. From this day forward, make a pledge that you will be a permanent resident in the improving group because your students and your world need teachers who will do the work necessary to keep getting better.

I realize I am plagiarizing my own speech, but you should know what my goal is for you. I want you to choose the improving group. You do not have to be stuck in the plateau group. Take your time and consider the implications. Be honest with yourself. Improvement requires effort and time, so you should not make any decision on your future ambitions without adequate thought.

I cannot anticipate what specific butterfly will flap its wings and change the future direction of your teaching career. I do believe that any quest for better teaching begins with a deep desire to improve. This ambition stimulates the thinking that leads teachers to experiment, evaluate, and evolve as they analyze every procedure and process currently in use in their classes. Writing can help. The 5 percent improvement that comes from the three E's will enable you to avoid the plateau group and reside for the remainder of your career in the improving group.

As a teacher, are you currently in the plateau group or the improving group? Unless you are a new teacher, think back over the last few years and identify specific experiments that demonstrate your desire to improve. Have they occurred once a month, once a year, or once a decade? How often do you step out of your comfort zone to try something new in your classes? Are you ready to create a more effective Rube Goldberg Learning Process? Many teachers stick with the plateau group simply because the improving group requires more thought and energy. Never settle for that mentality.

LESSON FIFTEEN

THINKING OUTSIDE THE BOX

WHY BE A COLLEGE PROFESSOR IF YOU ARE NOT GOING TO BE A BIT DIFFERENT?

Professor O is a good teacher. His lessons are organized, and the students learn the material as it is covered in class. He never strays from the outline of recommended course material in the textbook. Professor O has started to wonder if the role of college teacher should be strictly limited to teaching nothing but the standard topics. He comes to you and asks whether he is allowed to bring any topic into class that goes beyond a strict understanding of the course? What advice would you give him?

Proud to be Unique. I was recently in Venice, Italy, walking among the countless shops that offer a plethora of interesting products. One store on the Piazza San Marco caught my attention because of a sign in the window that bragged, "Proud to be unique." I have no idea whether the statement was true or just a marketing ploy, but I liked the attitude. People should value their uniqueness and that is especially true of teachers. In college, I was always impressed by professors who seemed different, whose exercises and assignments were effective but also, at times, somewhat eccentric. Courses created by these individuals offered a vision of a college education that did not adhere to the norm, and I liked that. Elements of their class structure were "outside the box," in other words, different from anything I had previously experienced. Whenever one of those unusual tasks worked well, the results told me that the teacher's mind was bubbling with fascinating ideas. I immediately wanted to learn more from that person.

For this reason, when designing my own courses, I always seek to include activities that are not likely to be found at any other university. Students deserve the highest-quality educational experience but also one that is truly unique. Today, tomorrow, and in 50 years, I want my students to be proud that they completed a course unlike anything they could have had anywhere else in the world.

I love thinking about what I can try that is unique but still aids my students as they develop into more thoughtful adults. In my opinion, education does not need to be tightly bound by the strict confines of a course title. The words of the great philosopher Ludwig Wittgenstein serve as my guide, "If people did not sometimes do silly things, nothing intelligent would ever get done."

I view any unique steps that I choose to take as vital to the integrity of the class. Consequently, I refer to them as the ears, nose, and tail of my Rube Goldberg Learning Process. Yes, I could teach without the actions described below, but the students would miss out on something wonderful. The course that remained would not stimulate them to think as deeply nor would it

promote as much enjoyment. We seek innovative thinking from our students. They deserve to receive innovative thinking from us.

Ricky Nelson had a popular song in the 1970s titled *Garden Party* that had the classic line, "If memories were all I sang I'd rather drive a truck." My version of this song is, "If the subject matter was all I taught, I'd rather retire and head to a Caribbean beach."

Unique activities created by the teacher complete my vision of a Rube Goldberg Learning Process, a comprehensive system that can provide an outstanding education for every student.

- Foundation. The four points of the Education Diamond
- Heart. The students' faith in the teacher.
- Skin and Muscles. The stories we tell ourselves about teaching and our students.
- Ears, Nose, and Tail. Any activity that is not essential for a course in a strict sense but stimulates thinking so that the students will grow as unique individuals.

I could probably list 500 "out of the box" assignments or actions I have attempted over the past 52 years. Some failed miserably. I am surprised the students held back their desire to throw rocks at me. Others were joyously successful. They were all experiments, and they were all worth the effort. I will describe five of my favorites. The first four are directed at the students in hopes of creating positive changes in their knowledge and their thinking. The fifth does affect the students but only indirectly. It is a considered attempt to help me grow both as a teacher and as an empathetic human being.

What Is the Best Book You Have Ever Read? For more than three decades I have used a simple writing assignment to encourage my students to consider their own version of greatness. The time commitment is small but, in my mind, the potential benefits are enormous. Over the years, student reactions have been enthusiastic even though the work is not graded. Simple assignments can often provide the greatest outcomes.

In one specific upper-level accounting course, I ask every student to identify the best book they have ever read and then write a paragraph or two to describe the reason for their selection. Here are the instructions I share with the class near the end of each semester.

> One evening in 1990, my two sons and I had a fascinating conversation about the best books we had ever read. We talked about why certain written works were especially meaningful to us. Starting the next morning, and every semester since then, I have asked the students in this class to select their all-time personal best book. A short justification of your choice is required. Our course material is obviously important, but every person's education needs to be about more than the subjects studied in class. A major purpose of college is to help students have meaningful lives. If all you come to appreciate is work, beer, and television, adult life will quickly become duller than you might imagine. Theater, art, opera, ballet, museums, intelligent movies, and good books can enrich every life. I want that for you.

> Now it is your turn to add to my "best book" list. Do some thinking and tell me about the best book you have ever read. I am not asking for your favorite book but, rather, your best book. You are adults and I trust you, so you can determine the criteria you prefer. Write a paragraph or two to explain the selection.

Students have 48 hours to create responses. I often receive beautifully composed descriptions that extend for pages. Students discuss character development and plotlines as if they were literature professors. Many write emotionally about difficult times in their past and the books that helped them cope. More than one essay has described a traumatic event such as a serious illness or a friend's suicide before launching into a touching review of a book that provided comfort and strength. I love reading these essays. They are eloquent and insightful. The writing only requires a few minutes but that is time well spent. I do realize that this assignment has nothing to do with the topic of accounting, and, truthfully, I do not care.

I have accumulated a list of every title selected over these years (approximately 800 books that range from works by Malcolm X and James Joyce to Dr. Seuss and J. K. Rowling). Currently, all-time top choices include *To Kill a Mockingbird*, *Catcher in the Rye*, *The Great Gatsby*, *1984*, and *The Count of Monte Cristo.* After the semester ends, every student receives an email with a copy of the master list with the title of each book and its frequency of selection. I include my own personal list of the 15 best books I have ever read.

I urge students to adopt the habit of reading more and reading better.

> I love to read about how a specific book has affected a person so deeply. Read as much as possible so that you will not miss an important influence. Slowly meander through the attached list of best books. These literary works offer you an expanded view of the world. Who can resist that opportunity? Sometime over the past 30 years, a student much like you chose each title. Not every book will have great meaning for you, but many will. Reading good books will make you a better human being. Pick one that seems intriguing and get started. Have the discipline to read for a mere 15 minutes each day and you will likely finish your first book within a month or two. Only 15 minutes per day and you can read 6-12 excellent books each year. Making time to read will have a positive effect on the person you become. Choose wisely.

Occasionally, an email arrives from a student years after graduation who confesses, "I am searching for something good to read, but I lost my list of best books. Can you send me the latest version?" I am happy to oblige. My interest in a student's development is not limited to the 14-15 weeks they sit in class but extends throughout life. This best book exercise takes little class time or effort but has the potential to create a positive, long-lasting effect.

<u>Learn about the World Outside of Campus.</u> Most universities are situated in geographic areas filled with interesting places and events. Nevertheless, students often cloister themselves on campus and see little of the outside world except possibly a few restaurants, bars, and

convenience stores. Many attend school until graduation and then leave the area forever. Before moving on, students should take advantage of the opportunity to discover more about the wonders of their temporary home.

I have a semester-long assignment designed to encourage students to have a more rewarding college experience. Again, it is simple. I have used it for decades. A professor could easily incorporate this idea into any course from astronomy to zoology. It has nothing to do with the subject matter but everything to do with the broader goals I have for my students.

At the beginning of each semester, I provide students with a list of places that are unique to our city and the surrounding area: the fine arts museum, the botanical gardens, a famous cemetery, the opera, the zoo, the historical society, the annual folk festival, a lovely Victorian-era park, a 1920s movie palace, Civil War museums and battle sites, and many others. I offer to add one point to a student's final examination grade for each of the identified places visited during the semester (up to a maximum of five). Many students travel to the various locales in groups, which I consider a team-building exercise. They occasionally leave after our Friday class to explore the world beyond campus and earn an extra point. Class camaraderie is good for the educational process and these trips help.

Although not required, students frequently email me selfies from their travels around the area: staring at a bust of Edgar Allan Poe, admiring a Van Gogh painting, standing in front of the stage before a performance of Swan Lake, and the like. Each photo joins a growing collection taped to my office wall.

I would not award a large number of points for such experiences, but I am willing to add up to five to the final exam grade. Incentives do matter. Probably 70 percent of the students each semester visit at least four of the listed sites. These trips enrich their college education by introducing them to this part of their world. They visit interesting sites they might have otherwise missed during their years as an undergraduate student.

A favorite photo hangs in my office. It shows a bright spring day. Eight smiling students stand with arms linked on a 1770 street in Colonial Williamsburg, Virginia. Only one was a student enrolled in my class. She convinced seven friends to come along on a 60-mile journey so that she could earn a single extra point on her final exam. They all look radiantly happy. When she is 100 years old, she will still remember the trip. That was a point I was delighted to award.

This assignment provides me with one additional opportunity. I am always concerned with the mental health of my students. Most are 19-20 and are trying to make the complicated transition from teenager to productive adult member of society. These students are under constant stress from tests, other graded assignments, and the countless experiences of college life. Last year, a large university only a few hours from my campus had 7 student suicides and that scares me more than I can convey in words. We need to pay close attention to our students and be as aware as possible when they seem troubled. If a student's behavior begins to change or a student shows

signs of sleep deprivation, I contact the appropriate campus authorities immediately. I prefer to be overly cautious.

During a long, difficult semester, I sometimes get a sense that the entire class is stressed out and needs a break. If that happens, I look through the local newspapers or on the internet to see what is happening near campus that weekend. One good example is the Armenian Food Festival which takes place each fall about a 1½ mile walk from campus. If I think the students might need to relax, I email them the following message.

> It has been a challenging semester. I realize how much you love to study, but you might want to take some time off this weekend and enjoy yourself. In fact, I plan to take my wife to the Armenian Food Festival on Friday or Saturday evening. The food is delightful, and I love the singing and dancing. The weather is supposed to be nice so you could even walk. I think you will do better in class next week if you get out in the fresh air and stretch your legs. I know you can get five extra points on your final examination by visiting sites on the approved list of local activities. For this one weekend, I will let you add the Armenian Food Festival to bring the total available bonus points up to six. Why not get together with other members of the class and stroll over together?

Many students do not seem to need this type of distraction. They appear to deal with the stress well. However, although I try to be observant, I never know for sure who might be struggling internally. Offering one bonus point for taking a pleasant walk and eating good food could be just the diversion that one of my students needs. As teachers, we cannot solve all student anxiety issues, but we can certainly try to help them release some of that tension before it builds up to a dangerous level.

<u>Martin Luther King Jr. Day.</u> I teach on Mondays, so my students get Martin Luther King Jr. Day off each January. Dr. King died more than 50 years ago. Although the students are aware that he was an inspirational leader, I sense that many do not fully appreciate how much he helped to change the United States for the better. The reason for the holiday is not completely clear to them. For many, he was assassinated before their parents were even born. However, I remember Dr. King quite well and I want to use this opportunity to help them hear the story from someone who lived in the southern part of the country during the 1950s and 1960s. Every January, I write an email like the following and forward it along. I want my students to appreciate Dr. King, his life, his work, and so many other people who stood up for what was right. I want them to know where I stand.

> Monday is Martin Luther King Jr. Day. People view the day in different ways. Below is a URL that will take you to a song with some accompanying photos. It is just six minutes. Do me the favor of watching the video all the way through, every photo. It shows some of the greatest saints that have ever walked this country.

> The photos do not come from 1859. Every photo was taken at about the same time that I was your age. They are brutal and terrifying. Events like these happened almost daily when I was in college. I watched them on television when I was enrolled in the same course you are now taking. That was life, and it was not so long ago. Most of these photos should absolutely break your heart.
>
> I know that the world today is far from perfect. I could list flaws from here to next week. Nevertheless, I think it is important to remember how far we have come during the past 5-6 decades.
>
> That progress took place because a few people like Martin Luther King Jr. had the courage to risk their lives for what was right. I look at those photos and wish I had been there and stood up with them. What unbelievable bravery that must have taken.
>
> We should honor these people. Not just on Monday but every day. Monday should not be a holiday just so everyone can take a break from class and enjoy an extra day of leisure. These people risked everything and helped make our country and our world better. Life today would still resemble those photos except for their bravery. I don't know how you will spend Monday, but you should take a few moments to appreciate what a few people with enough courage can do to turn back extreme levels of hate. Pray that the world gives us more people like Dr. King and those other heroes.
>
> https://www.youtube.com/watch?v=LVQ6Y8szaBQ

Teaching Something Entirely Different. About a decade ago, with the help of a faculty friend in our English department, I designed a program tying together two widely differing courses in hopes of opening the world up a bit for a few of our students. Every Monday afternoon, I taught governmental accounting to ten graduating seniors. On Wednesdays, I assisted Dr. Elisabeth Gruner in discussing Victorian literature with the same group of accounting majors. We examined complicated accounting rules on Monday. We analyzed the words of classic authors such as Charles Dickens and George Eliot on Wednesday. I had never seen classes more oddly conjoined. No class experiment I have ever tried has been more "outside the box" or more fun than this one.

What were we trying to accomplish? Here is how Dr. Gruner and I described our objectives.

> Selecting a career-related major does not reduce the importance of gaining a deep appreciation for literature, visual arts, history, political science, and the like, not to mention the critical thinking, reading, and writing skills that students can hone in those fields. Unfortunately, many students concentrating on business careers seem obsessively focused on the narrow confines of their majors. Our goal for the semester was simple: We wanted a group of accounting majors to reconnect with the liberal arts near the time of graduation—just as they begin making the transition into a professional career.

("Victorian Literature for Accounting Majors," *The Chronicle of Higher Education* [online], Joe Hoyle and Elisabeth Gruner, June 26, 2013)

Students typically analyze novels like *Great Expectations* during their first or second years in college to fulfill general education requirements. Unfortunately, not everyone leaves those courses with a deep appreciation for classic literature, a love that can enrich a life for decades. In the 2017 book *Gen Z @ Work* (by David and Jonah Stillman, published by HarperBusiness), a 17-year-old prototype of Gen Z responds to a suggestion that he take an art history class as an elective, "I think that's great for people going in that direction, but I want to take classes that actually apply to my future." I wanted to yell at the book, "How do you know if you want to go in that direction, if you never try it? It is your narrow thinking that is limiting your future."

Other than completing requirements, college students often avoid courses like Victorian literature for predictable reasons. A good literature class is demanding. Discussions can be intimidating. Teachers and students may express strong, and possibly controversial, opinions. At times, conversations grow rather intense. Students might not know the other members of the class and feel uncomfortable describing their personal views and beliefs. No one wants to appear stupid, especially in front of an audience of strangers who are also peers. Lengthy written assignments loom as difficult obstacles that can require hours of work. Without a good attitude, the experience can be bereft of the joy that reading outstanding books should engender. Despite the teacher's best efforts, many college students will never read another piece of great literature in their entire lives. That is incredibly sad.

Why did Dr. Gruner and I create this unusual class arrangement for ten accounting students who were mere weeks away from graduation? That is easy to answer. We wanted them to be successful in living their lives not restrained by the choice of a major. I believed then, as now, that reading great works should not be a task that a young person checks off a mandated list and then abandons forever. That simply cannot be the goal of any college.

I hoped for a different outcome. Discovery of passions outside of a major should be a priority of the college experience. The lifelong pleasure produced by literature, art, music, architecture, astronomy, and the like is an important element in becoming a thoughtful, fulfilled human being. I wanted to help my students experience the enjoyment that reading outstanding books can provide. However, the course could just as easily have examined the musical compositions of Strauss and Rossini or the artistic creations of Modigliani and Vermeer or the theatrical productions of August Wilson and Tennessee Williams. I wanted to light a fire of intellectual excitement just before students graduated and left our campus. I chose literature because I enjoy reading, and Dr. Gruner is an outstanding teacher and scholar. More importantly, she was brave enough to design a Victorian literature course solely for graduating accounting majors.

We restricted the class to seniors for three reasons. First, by this time in their college experience, they all knew each other and were more likely to study the readings together as a cohesive unit.

Learning is more fun if students develop a positive group attitude. Because of their familiarity, they had less reason to feel threatened. Second, they were so close to graduation that we believed the enjoyment could carry over into their future lives. If the experiment proved successful, these students would leave campus with a love for great books, a passion unrelated to their major. Third, we thought additional maturity might make them more open to the possibility that this knowledge was worth the effort. As I have often observed, most seniors appear considerably more than three years older than a typical first-year student. College has that effect.

Years from now, will books like *The Mill on the Floss* still enthrall these ten students? My fond hope is that they continue reading such classics for the rest of their lives. In class, they certainly appeared to enjoy discussing these novels, literary works that they might otherwise have never read.

One student provided an insightful evaluation.

> When I first realized that I had signed up to be in what is essentially an English class with only accounting majors, I expected the conversation and discussion of the books we read to be lacking in depth and analysis. I did not expect any of us to truly be able to delve into the reading in the way English majors are taught to do. However, with each passing class, I find myself both stunned and proud at the thoughts that my fellow classmates and I have on the readings. I underestimated both myself and my classmates.

Want to experiment? A school could link any number of courses to form interesting and innovative combinations. The only requirement is sufficient imagination. Teachers might join a psychology class, for example, and a marketing class to investigate how television and internet ads manage to elicit certain behaviors. A math class and a fine arts class could analyze the dimensional balancing of subjects in artistic masterpieces that make practical use of the Golden Ratio (such as is found in works by Leonardo and Michelangelo).

Because of the specified goals, our two courses remained distinct but connected by the restriction on students who could enroll. That was necessary because of what we wanted to do, but many other combinations are possible. Complementary academic objectives could also bring seemingly diverse courses together. Intertwining subject matter in this way starts to resemble the complexity of life beyond campus walls, always a laudable achievement. If you want to experiment in a radical fashion, try putting two entirely different classes together. The results might well surprise and thrill you.

<u>Remembering What Being a Student Feels Like.</u> Years in the classroom can make a teacher forget the feelings experienced every day by students. As professors, we quickly become used to being the "smart one" in the room, the person who holds absolute authority. We are well educated in the class subjects, while the students are often lost. In college, I remember the trauma of being called on by a teacher and not having an answer. I recall walking up to the front of a classroom to be handed a political science test with a big red D splashed across the front. I

was mortified. However, those feelings fade out over time and that memory loss affects how we treat our students. As the years pass, our empathy for those that struggle can slip away.

Therefore, I enroll in classes whenever I can, especially subjects where I have little or no talent. I never want to forget the feeling of being totally confused by what a teacher is trying to explain.

Over the years, I have signed up for courses on Russian culture, wet collodion photography, ballroom dancing, jewelry making (several types), and several others. I have taken tai chi classes for years even though I am not at all adroit at this meditation exercise. The graceful flowing movements look simple until I attempt them with almost comic ineptitude. Nevertheless, my teacher exhibits infinite patience. Even after years with little progress, he never loses his temper or implies in any way that I am stupid or clumsy. He repeatedly works with me on the moves and positions and remains calm and supportive. I am so grateful to have a great teacher. I appreciate that he never calls me out in front of the other members of the class for being a poor student.

After each tai chi class, I return to campus a better teacher. By putting myself into the role of student, I realize that I learn more through the teacher's patience than I would if he became angry or disappointed. I can write these words and you can read them, but you will never fully comprehend the feeling until you return to being a student, especially one who does poorly. It is a humbling experience and that can be helpful for a teacher. Although I offer numerous suggestions in this book, few are as important as this one. Take a class in something where you have interest but no apparent talent. Drop your pride and enroll. Never let yourself forget the feeling of being a struggling student because that lack of awareness can severely limit your potential as a teacher.

Every class provides the student with unique lessons. Several years ago, I signed up for a two-day course on large-format photography. Those big cameras sit on tripods while you place your head under a black cloth and manipulate the lenses into focus. The process produces lovely pictures and serves as a vivid reminder of the 19th century and portraits of Abraham Lincoln. Although I have a small darkroom in my basement, this type of photography was a new experience for me. The sessions took place on a Saturday and Sunday. We students were to learn the basic procedures on the first day and shoot two photographs. The teacher planned to develop our work that evening so we could discuss the results the following day. I very much wanted to learn and paid close attention. The teacher provided excellent instruction, and I made my two exposures. Every step seemed to go well. I confidently looked forward to returning the next day for the critique of my pictures.

On Sunday morning, the teacher arrived carrying several packs of developed photos and explained, "We did not label these yesterday so I will hold up each set. You can tell me which pictures are yours. We have five students in this class but only four sets turned out. Unfortunately, something went wrong with one pair of negatives. They were completely blank."

A panicked thought flashed through my mind, "Oh, geez. I hope I am not the one who made the mistake. I really want to do well. I tried my best. Please let someone else be the person who did it wrong." The teacher showed us the first two photographs and a student on the other side of the room claimed them. A second pair went to another person, as did a third. Like a game of musical chairs, two of us remained but the teacher held only a single set of photos. One student had succeeded. The other had failed. It was that simple. In my mind, I was practically praying, "Let it be the other student who messed up. I don't want the class to know that I am the dumb one."

Of course, I was the student whose photos were improperly exposed. I was the dumb one. I had inserted a plate backwards on the camera, so the light had been unable to reach the negative. It was not a catastrophe. No one really cared. The other students barely noticed. We were merely taking a weekend class on photography. Nevertheless, despite my best efforts, I was at the bottom of the class. Everyone knew that I was the only person in the room who failed to do the process correctly.

The next day, I went back to the university and resumed my normal role as a tenured professor. For the next few weeks, I had considerably more patience for the students in my class who were struggling and occasionally needed to hear an explanation a second time. If you are always the teacher, the wise and brilliant expert in the room, the perspective of the student can be lost. That is not good for you or your teaching. We all live busy lives. However, if you truly want to be a better teacher, make time to be a student so you can remember how it feels to be the dumb one.

Think back on your time in college. Did you have any professors who were a bit eccentric and seemed to think outside the box? Hopefully, such experiences were successful and broadened your educational horizons. College courses can offer many different perspectives. In your own teaching today, do you ever try unique tactics, possible experiments that might stretch how your students learn? Critical thinking can be developed using a wide variety of interesting approaches. Or as an alternative, when was the last time you enrolled in a class and experienced the frustration and confusion that is common to almost every student? Have you recently had to face the possibility of being one of the struggling students in a class? That experience can certainly heighten a teacher's empathy levels.

LESSON SIXTEEN

A FINAL EMAIL TO SEVERAL STUDENTS—YOU DID IT!

HOW DO YOU CONGRATULATE STUDENTS AND ALSO HELP THE NEXT CLASS DO WELL?

The Best Part of the Course. I always know my favorite moment in every semester. It occurs after I have graded the final exams, computed each student's mathematical average, and decided on the course grades. Because I want the process to be personal, I still own a paper gradebook where I write in names and information rather than use an Excel spreadsheet. Before I enter those grades into the University's computer system, I have one remaining task. It is one that I love. I want the students who earned an A to hear the news directly from me and not from some anonymous computer link.

Those students worked hard in my class and produced great results. I pushed them to be prepared for every class. I called on them and questioned them, often intensely, about the puzzles we were analyzing that day. The material was hard, and the tests were complicated. The semester was long. The course was no picnic. Nevertheless, those students responded with great work and earned an A. That message needs to come from me. I feel I owe them that courtesy. Therefore, I send individual emails to these students, and each one makes me smile. A slightly edited copy of the congratulatory note I emailed last spring is shown below.

I often think that the reason we do not receive as much outstanding work as we want from our students is that we do not personally acknowledge the individuals who do outstanding work. Why work so hard if no one is going to notice? That sentiment is one every person in authority should ponder. Nothing pleases me more than being a teacher who gets to tell several of my students, "You Did It!"

Students Teaching Students. For many years, this congratulatory note was short and to the point. "You did great! You made an A." Eventually, I learned a lesson from a legendary basketball coach and realized that this communication could serve a second, but very important, purpose.

Dean Smith was the coach of the men's basketball team at the University of North Carolina from 1961 until 1997. He was an innovator and a winner. Apparently, he was quite a unique individual. For example, Coach Smith left $200 in his will for every UNC basketball player who lettered during those years. The will instructed them to, "Enjoy a dinner out compliments of Coach Dean Smith." That amounted to nearly $40,000.

He seemed to be a person who thought outside the box, so I paid attention to what he had to say. One day, I watched an interview on television where Coach Smith explained that he expected his senior players to teach the first-year players what it meant to be a member of the North Carolina basketball team. I immediately loved the idea and wanted to apply it to my own classes. It just made so much sense. My older students could help my younger students understand what I wanted from them. Most students who go through one of my classes eventually gain a reasonable understanding of what I am trying to accomplish. How could I get the A students to pass along that knowledge? If I could make the idea work, each new group of students would be aware of strategies and other secrets for success even before the first day of class.

To copy the tactic that Coach Smith used, I added a short assignment to my "Congratulations" message. At the end of that email, I started asking each of the A students to send me a paragraph or two explaining how they managed to make an outstanding grade in my class. I accumulate

this advice and send it along to my next class of students with an explanation. "These students made an A in the course you are getting ready to take. They accomplished what I wanted. I asked them to tell you their secrets. Read their notes and you will know what you need to do next semester to make an A. That is what I want for you and here is how it can be done."

Even though the semester is finished, most students do a nice job with this assignment. I think they are proud that someone wants to know how they managed to do so well. Some write a few sentences, but many write multiple paragraphs sometimes complete with bullet points. I am always impressed by how astute the responses are. These A students really do come to understand how to be successful within my learning process. No matter what they say, I pass the advice along verbatim to my future students. Transparency is always important.

Then, at key times during the subsequent semester, I remind my class, "If you are struggling and things are not working out in this course like you want, take a few minutes and read some of the messages included in our 'How to make an A' document. These students were just like you. Their messages tell you what they did to make an A. They did it and so can you. Consider what suggestions they offer that will help you be a great student."

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To: XX

From: JH

Congratulations!!!

I am sending this note to you as one of the students who earned the grade of A this semester in Intermediate Accounting II (Accounting 302). Although 41 students started and completed the course, less than 30 percent managed to earn the grade of A. You did it!! Congratulations!! On the first day of the semester, I told the class that it would take truly outstanding work to earn an A. And you did outstanding work. That is never easy. You should be proud of yourself and your effort.

I appreciate the work that it took to excel in such a challenging class. Few classes on any college campus are as demanding as our Intermediate Accounting II course. From the first day of the semester to the last, we pushed through some extremely complicated material: gift cards, bundling, selling coffee makers, callable debt, bonds, leases, deferred taxes, pension plans, comprehensive income, earnings per share, statement of cash flows, and much more. The list is quite extensive, but it takes a deep knowledge of such topics to understand how accounting rules work. I want you to know that I am very proud of you.

Even before the semester began, I said that I would throw out odd and complex puzzles and then help you figure out how to report them so that they would be fairly presented in conformity with official rules. You did the work that was necessary to excel at that process. You didn't let the challenge overwhelm you. I am pleased for you. I sincerely believe that every student who started this course back in January had the ability to make an A. But you were one who managed to achieve the goal. In life, success comes from a lot more than just ability. It comes from

taking on challenges and investing the time necessary to be outstanding. I occasionally get frustrated that more students don't set out to be great. I cannot say that about you.

Go out and celebrate your accomplishment! Not many people can say they made an A in my Intermediate Accounting II class. It is always fun for me to have students who want to do well and then do the work necessary to make it happen.

As you will likely remember, I always ask students who make an A in my class to write a short paragraph or two addressed to next semester's students to explain exactly how you did it. I believe this information provides important guidance that can help the next batch of students do their best. You figured out what I wanted and then you did it. Many students struggle to catch on to my goals. It is always helpful when the A students at the end of one semester explain the process to the next group of students. I always say, "Everyone can make an A in this class, but you really have to do certain things." Okay, what are those things?

I only ask two things as you write this final paragraph. First, be serious and, second, tell the truth. I will ask nothing more of you than that.

And write that paragraph before you forget. We all suffer from procrastination.

Have a great break. Spend time doing activities that will expand your horizons and make you think more deeply. Read a good book, see a thoughtful movie, check out a museum, take a walk on a beautiful day and enjoy being young. Those are the type of experiences that can change the rest of your life for the better. Never let your life fall into a rut. Open your mind and pour as much interesting stuff into it as you can. Hopefully, that is one of the lessons that you will take away from my class.

I will send out the class's "Best Book" list next week. Find a special book and start reading.

Congratulations again. It has been a genuine pleasure having the opportunity to work with you.

EPILOGUE

HOW SHOULD YOU MOVE FORWARD?

I began this work with two epigraphs, one from Ellen Johnson Sirleaf on ambition and one from Christopher Morley on thinking. I selected those observations because I felt they would guide readers through the tenets of this book. Ambition and thinking have been central themes from beginning to end.

Now, here at the close, the objectives change. A final quote is needed that will guide readers out into the world of education. Nothing is accomplished within the pages of this book. To make a difference, you must venture into a real classroom with real students and start experimenting, evaluating, and evolving.

One of my favorite parts of this book is the statement from Cheryl Strayed's memoir *Wild*. Her words, "fear, to a great extent, is born of a story we tell ourselves," have probably had more effect on my thinking than almost anything else discussed here. So many successes and failures in life are wrapped up in the stories we tell ourselves. Control those stories in a positive way and your chance to improve as a teacher rises dramatically.

Becoming a great teacher is challenging. Nothing I have written implies that the goal is simple to achieve. Wishing alone will not help. I expect many readers who have gotten to this point are feeling a gnawing concern in their brains, "This all sounds wonderful, but I know me, and I know that I am not capable of creating and managing so much change in my classes." Such worries are normal human emotions. As Dr. Seuss might have written, "Oh, the stories we tell ourselves."

In closing, here is what I want you to consider. An annual 5 percent improvement rate is not easy. However, it is not nearly as hard as you might imagine. Get to work and start thinking about the points of the Education Diamond or the communications you can send to students so they will have more faith in your teaching or the "outside the box" experiments you might try. Focus on those stories and, I believe, your teaching will gradually begin to improve.

I carry only one quote with me on my cell phone. I read it to myself whenever I struggle through a bad day as a teacher and feel lost. It provides a perspective that helps me keep pushing forward, a story I always need to remember. The words come from the great author, Barbara Kingsolver, in her novel *Flight Behavior*. Do not scare yourself into believing that improvement is impossible. That is the wrong story. If you have the ambition and think deeply, you can become a great teacher. Right now, that goal might look impossible, but it is not.

Things look impossible

when you've not done them.

Barbara Kingsolver

APPENDIX A

AN EMAIL TO MY STUDENTS PRIOR TO THE START OF CLASSES

HOW DO YOU LEARN TO LEARN?

As I have mentioned, one of my concerns about teaching in college is that many students have not yet developed strong learning skills. They are extremely smart, but the techniques they rely on in class can be rather primitive. Previously, they have succeeded with little more than notetaking and memorization (and, possibly, a lack of competition). When that strategy fails to work in college, they grow frustrated and lose confidence. Such students remind me of high school baseball players who win games on talent alone until they face a pitcher who can throw a real curveball.

For that reason, I offer a bribe (er, I mean, "extra credit") to my students in hopes that they will spend a bit of vacation time prior to our first class learning about learning. I want them to be ready to respond to the challenge of analyzing the complex puzzles I construct for them. Hopefully, they will also do better in every other class if they arrive back on campus as more efficient learners.

Here is an email (slightly edited) that I sent to my students prior to the beginning of last semester. I never achieve 100 percent participation, but usually 50 percent of the students will read one of these books. I am always pleased later in the semester if a student wanders into my office and admits, "I've become a much better learner because of the book you convinced us to read over the break. I didn't realize how poor my study techniques were."

Notice the marketing tactics I use in this email to entice students to take an action that is good for them. I am convinced that success at many endeavors in life must be accompanied by a considerable amount of marketing. Teaching is no different.

**

To: My Students for Next Semester

From: JH

I hope your break is off to a great start. I plan to travel across the U.S, and then to Europe before we meet in class. The break is a great chance to learn about the world outside of your home base.

Chance for Extra Credit

Several years ago, I read the book *Make It Stick – The Science of Successful Learning*, by Brown, Roediger III, and McDaniel. As you might imagine, I am deeply interested in helping students learn more effectively. I found the book to be quite insightful. For example, the authors frequently explain that reading material repeatedly is not very helpful in getting knowledge into your memory.

According to *Make It Stick*, the mental retrieval of information is what solidifies learning. That is a process we work on frequently in class. If you want to learn a topic, pull it out of memory repeatedly. Your knowledge grows stronger each time you use it. As the authors state, "One of

the best habits a learner can instill in herself is regular self-quizzing to recalibrate her understanding of what she does and does not know."

They even have a chapter titled "To Learn, Retrieve."

I have taken tai chi for about 5 years and my teacher follows this same approach. The first 20-50 times that the class repeats a move in tai chi I invariably get it wrong. However, if I am persistent, eventually it becomes easy (or at least doable). With sufficient practice, what seems impossible becomes almost easy.

We will do a lot of retrieval in our class this semester. One of my mottoes is, "We will do it until you can do it." I like that thought (write it down).

**

This past semester I read *Outsmart Your Brain*, by Daniel Willingham, another outstanding book about learning. In fact, the book's subtitle is, *Why Learning Is Hard and How You Can Make It Easy*. The author presents dozens of tips on becoming a better learner. Although I did not agree with every piece of advice, I certainly believed strongly in many of them.

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The semester after I read *Make It Stick*, I offered my students three bonus points on the first test of the semester if they read the book during their break. Several did and those students talked about how useful the information was. They claimed the book helped them understand what I was trying to accomplish in class. Since then, I have made the same extra credit proposal to every class.

This semester, I am adding *Outsmart Your Brain* to this list. Read either book and you will receive three bonus points on our first test. (You can read both books, if you wish, but the offer is only for a total of three bonus points.) Both books are available on Amazon. Used copies are not very expensive. Students from last semester might loan you a copy.

I honestly believe my previous students have gained much more than three bonus points from the ideas and tips provided by their reading. I have always been surprised by how little some smart students understand about learning. In high school, a degree of success can be achieved by relying on memorization. In college, or at least in my class, you need to be more efficient.

Here are some reflections that two previous students told me about *Make It Stick*.

"During high school, often times the material that you study is easy enough to cram in the night before an exam. When I started off at Richmond, I was overwhelmed with the amount of cramming I would have to do in order to make high grades. During my first and second year at Richmond I decided to study a couple days in advance. After reading this book and seeing the results of students who study in advance and continue to look over what they learn, I have done the same and by the time of the test often feel ready to go. This book has definitely had an

impact on my semester, as I may be increasing my study time per day but by the day before the test, I don't feel as stressed out and overwhelmed."

"I think reading *Make It Stick* has reminded me of how to best study and learn material. After being abroad last semester, I was craving work but the book gave me a sense of mind when it came to the best ways to study. I liked it because it didn't just plainly state how to memorize things efficiently. It provides evidence and demonstrates why certain techniques work well. For example, sometimes when I don't feel like doing my homework or a practice problem, I think about how the more you actually do a problem the better you will know it. It is reinforcement such as that which gives seemingly repetitive and exhausting work a purpose."

**

I could include dozens of quotes like these two, but I assume you get the point.

I will make the same deal with you as I have with classes in the past. Read either *Make It Stick* or *Outsmart Your Brain* prior to our first test, and I will award you with three bonus points. You are not required to read either book. You will incur no penalty if you choose to ignore this offer. I do think the potential gain is worth your time, but that decision is up to you.

On the first test, you can let me know what, if anything, you read. I expect you to tell me the truth. Don't ever lie to me. That is the only way I will get upset at you. You are my students, and I need to have absolute faith in you.

Let me know if you have already read both books (not likely but not impossible) and I will provide you with an alternative selection. Quite a few good possibilities are available.

APPENDIX B

AN EMAIL TO STUDENTS WHO REGISTER FOR MY CLASS

WHY IS THIS CLASS GOING TO BE SO GREAT?

Because I want students to start getting ready for my class from the moment they sign up, they receive a "Welcome!" email from me almost immediately. I want to intrigue them. I want to challenge them. I want them to look forward to seeing what makes this class special. I want to start building their faith in me and my teaching. As I discussed in Appendix A, you will notice here that I believe in the power of effective marketing. When attempting to help students, be as persuasive as possible.

Soon after registration, I send the enrolled students a note much like the one below. My assumption is that students are never more interested in learning about a class than when they first sign up. At that point, all options are still open. They can drop the class. They can change

to a different professor. They can remain in the class and see how much they might learn. I send this opening message because I want the students to start growing curious and begin to look forward to a unique learning experience.

As you read this email, see if you can identify the goals that I want to accomplish with this first missive.

**

To: Students who have signed up for my class this coming semester

From: JH

Hi, my name is Joe Hoyle, and I am on the faculty here at the Robins School of Business. I am writing this note to everyone who recently registered for my class next semester.

I know you are currently in the midst of spring semester. I hope you are gaining a considerable amount of knowledge. Learn as much as you can in every course. None of us ever knows what specific information might prove beneficial in life after graduation. Be careful before you dismiss any class as unimportant. Life can be long. The more you know, the better it goes.

I am delighted that we will be working together. I have taught this class most semesters for the past 50+ years. I firmly believe that it is the most important course in the Business School and, in my opinion, the most interesting course at the University. Furthermore, despite its reputation, this course can be the most fun.

No one functions at a high level in the world of business without an in-depth understanding of the topics we will cover this semester such as bonds, leases, deferred taxes, pensions, commitments, earnings per share, and the like. We work to understand important topics. We do that every day. I'm not here to waste your time.

I am writing today for several reasons. Obviously, I want to introduce myself, but I have several pieces of information that I want to explain.

1 – I send out numerous emails before and during the semester. I expect you to read them all. It is easy to say, "Oh, I'll put that off until later" or "He can't be telling me anything important." Do not do that. That is a dangerous strategy and can lead to a bad grade. I will start writing to you relatively soon in preparation for next semester. Watch for those emails. Read them. Think about what they say. Save the ones that are important. In this class, you will face a lot of excellent competition and those students will not procrastinate. I am not the one who makes this class challenging. The competition makes it challenging. It is easy to wind up with a C in this course if half of the other students study more than you do. That is merely common sense.

Pretend you already have a job after graduation. It is a job you love. You want to do great. Assume I am your boss, and these emails represent assignments I expect you to do as part of your job. If you have that feeling, you will look at this class in a totally different way. Attitude is always important. Teaching students with a mediocre attitude is a trial. Teaching students

with a positive attitude is a joy because I can help them get ready to leap tall buildings with a single bound.

2 – Typically, 20-30 percent of the students in this course make an A. Next semester, I want a whole lot more than 20-30 percent A's. Everyone in this class has more than enough ability to make an A. I want to challenge you right now to set that as your personal goal. I am not talking to the student beside of you or the one in front of you. Do not shift the responsibility off on someone else. I want YOU to make an A. It is no crime to make a B or a C in a challenging course, but it should be a crime to shoot for a B or a C. Our world needs more bright young people with serious ambition. Improvement needs to start now. One of the problems with the world, in my opinion, is that too many people settle for average. We should all be better than that.

3 – Students often ask for advice on being successful in this class. I could give numerous, legitimate recommendations, but they are all variations of a single theme.

Go to any of the upper-level students who have taken this course (in your fraternity/sorority, a club, your dorm, or wherever) and ask a simple question, "I want to be one of those people who makes an A in Professor Hoyle's class. What is the key? Don't try to scare me because I'm not going to run and hide. I am not a timid, frightened mouse. I want to earn an A. How do I go about reaching that goal?" My guess is that they'll give you excellent advice. I might be wrong, but I would expect them to suggest, "Be well prepared for every class (better prepared than for any class you've ever had) and start that process on the first day. Do that and you should do fine."

The above suggestion seems doable, but too many students are sporadic in their preparation, great one day and awful the next. They have a ton of excuses. However, the list of students who are well prepared every day and the list of students who make an A match up quite closely.

The A students are prepared every day. They come to class to check their understanding. The C students are not prepared well enough to follow the class conversation, so they madly copy down every word that is said in hopes of memorizing them all later.

4 – The world is full of interesting accounting stuff that I want you to think about and come to understand. Because many of you have studied accounts receivable in your current class, I will use that topic for illustration. I read an article recently in the *Wall Street Journal* titled, "'Reserve' Funds Pad Profits." This story is the kind I want you to read and say, "I took accounting so I could understand available information like this as well as any businessperson." That is a great goal. In the article, the *WSJ* questioned whether some major banks were improving their profit picture by making tiny adjustments in bad debt estimations. Banks have such large loan receivable balances that even small drops in the balances that are expected to be uncollectible can increase reported income by millions. The *WSJ* was asking a simple but vitally important question, "Did the banks have logical reasons for the changes they made in those estimates or were they just creating the appearance of improved income?"

Learning how to figure out answers to such questions is why you take this course. If understanding what the banks might be doing with their financial reporting does not intrigue you all the way down to your dirty little toes, you might be in the wrong major. (And I don't say that just to seem tough. It is sad to see students in any course who don't seem to care one iota about their course of study. That is a waste of a good education. Think about yourself and then find a course/major that does excite you.) Conversely, if your response is, "Oh my goodness, I see what is worrying the *WSJ*. That's the kind of knowledge I will need to understand to compete in the adult world after graduation," then you are going to love this course.

5 –If someone beats you in the real world because they are smarter, that's just life. But don't let anyone beat you because they are more ambitious. Don't let anyone beat you because they want the A more than you do. One of my favorite students from a year or two ago wrote four words on her notebook after a poor first test, "I Want It More." She made that pledge to herself, and she eventually earned an A. You could sense her improved attitude every day for the rest of the semester. What attitude will I sense in you? What words will you write on your notebook?

6 – If you want to talk about this course, your major, careers, or life in general, please make an appointment and come by my office and chat. In addition, my classes this semester are from 9:00 until 9:50 MWF and from 10:30 until 11:20 MWF. Let me know if you would like to visit one of the classes to get a feel for how my teaching works. That's a good idea. Despite the reputation, you will see that I do not actually torture people. I think you'll be surprised that, after a long semester, the students seem to enjoy the process of learning. How radical is that?

7 – And finally, I received the email below last year from one of my former students. This outcome is what I hope you will be able to describe when next semester is finished. This is the kind of experience this course provides. I want our time together to be a life changing experience, but that result is only possible if we work together to make it happen.

"I wanted to thank you for your time as a teacher this semester. I had heard terrifying things about your class prior to this semester, so I was very apprehensive when I first walked through the doors of the classroom. You were right when you said that you wanted this class to be 'the most interesting, challenging, and helpful class' that we will take at Richmond. This class did more than just challenge me, it taught me grit, ethics, and gave me more confidence within my academic abilities. It also showed me that accounting can be enjoyable.

"I have always prided myself on my work ethic. It's allowed me to accomplish some amazing things. From graduating magna cum laude in high school, to making Dean's List at Richmond, I have always believed that a hard work ethic can get someone anywhere in life. However, after the first exam, I began to question my academic abilities, and thought I wouldn't be capable of being a good accountant. I thought about switching my major.

"What I realized was that I needed to make some changes in my life. I've never been much of a partier, but I gave up drinking completely this semester. I started completing your homework immediately after class, instead of the morning before, and used my time in the morning to review my notes. I put in 30 full hours of studying while preparing for your final, and I don't

regret a single hour. I'm proud of the work I've done, I really feel like I have a good understanding of every concept covered in your class. I met some new, hardworking people that motivated me and inspired me. Most importantly, I feel like a better student and a better person."

This can be you. This should be you.

APPENDIX C

FACTS AND FIGURES ABOUT THE AUTHOR

WHO IS THIS PERSON? (PART TWO)

--I have been married to the same person for more than 53 years. She cooked for the first 50 years. I have cooked for the past three years.

--We have four children, two biological and two adopted, but I can never seem to remember which is which.

--I taught my first college class in August of 1971. I genuinely hope that I did not do any serious damage that day.

--I have been on the faculties of Gardner-Webb University, the College of William & Mary, and the University of Richmond. They are fantastic places with wonderful students. I owe each school a huge debt of gratitude. I received tenure at William & Mary in 1979 and at Richmond in 1982.

--I have authored and coauthored 15 editions of an *Advanced Accounting* textbook.

--I have coauthored three editions of a *Financial Accounting* textbook.

--You can watch a three-minute video of me talking about the Socratic Method at the following link:

youtube.com/watch?v=GgH5-ynmOmo&list=PLL1AktCDmRQisJ9YnIJoUQXUvH0pjyzjY

--I own ten antique clocks that all chime or ring plus one cuckoo clock. My house, at midnight, echoes with a wonderful cacophony of sounds that I find to be ever so beautiful.

--At the moment, the best book I have read is *The Scarlet Letter*. My favorite musician is Bob Dylan. My favorite artist is Raphael. My favorite movie is *Casablanca*. My favorite comic strip is *Calvin and Hobbes*. I worked each of these into the book at one place or another.

--My blog, *Joe Hoyle: Teaching - Getting the Most from Your Students*, can be found at the following URL. Like chess, college teaching is fascinatingly complex. In creating essays for the blog, I have always found that the number of topics to consider seems to be never-ending.

http://joehoyle-teaching.blogspot.com/

--In 2015, I was named the inaugural winner of the J. Michael and Mary Anne Cook Prize presented by the American Accounting Association for superior undergraduate teaching.

--In 2012, I was named one of nine favorite professors in the United States by *Bloomberg Businessweek*.

--In 2009, I was named one of the 100 most influential people in the accounting profession by *Accounting Today*.

--In 2007, I was named the Virginia Professor of the Year by the Council for the Advancement and Support of Education.

--In 2006, I was named one of 22 favorite professors in the United States by *Business Week*.

--During the last decade or so, I have presented teaching programs in Colorado, the District of Columbia, Florida, Georgia, Illinois, Kentucky, Nevada, New York, North Carolina, Ohio, Pennsylvania, Tennessee, and Virginia

--My short story, "And God Said," was published in the April 2022 edition of *After Dinner Conversation*.

--Over the years, I have created two businesses. I operated one for 24 years and the other for five years. I loved both, but ultimately sold them when I was ready for new adventures.

APOLOGIES

From the beginning, I wanted this book to be available to every interested person for free. To avoid incurring substantial costs, I have made extremely limited use of professional editing. I

always knew that was a potential problem, but “free” was a goal of mine whereas “perfection” was not.

In reading, I am certain you will encounter misused words, poor punctuation, typing errors, and the like. I have tried to reduce the number of those mistakes. However, I am an accounting professor, so my skill with the language is not at the level of an expert.

I apologize for any issues that you encounter. I sincerely hope that they do not distract from the message that I am trying to convey.