Teaching for Critical Thinking
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For the last 30 years or so I have run numerous workshops at colleges and universities across the world on how to teach students to think more critically. At every campus I visit I hear many of the same laments. One is that students’ attention span has become so compressed in the digital age that the cognitive stamina needed to stick with an argument until you understand it from the inside, and the intellectual rigor needed to analyze its validity in a critical way, has all but disappeared. I hear that students don’t read books any more, that they don’t go to the library (or even know where it is on campus), that they’re gullible consumers of any conspiracy theory that gains traction on the Web, that they’re celebrity-obsessed, and that they refuse to pay attention in class unless the professor makes the class as “fun” as playing a computer game.

This is a pretty low estimate of students’ abilities. And I’m sure that in some cases it’s right. But it just doesn’t jive with the students I see organizing community projects, marching against the unilateral invasion of countries, or moving into long and heated arguments on Facebook. Neither does it compute with the fact that for many middle and high school students in the last decade, the biggest event in their year was the publication of a book. For many of my generation (I’m now in my 60s) a major early adolescent moment was a TV event—The Beatles on the *Ed Sullivan Show*. (I should point out that this was no big deal to me, since I had
grown up in Liverpool and gone to the original Cavern Club as a kid.) For my own children’s generation, however, it was the publication of whatever was the latest installment in the *Harry Potter* series that was the moment of high significance. Now I know Harry Potter isn’t a text on macroeconomics or an explication of Heidegger, but it was astonishing to me to see pre-teens and adolescents, who supposedly couldn’t sit still to read much more than a sentence before lunging for a game controller, line up for hours to buy a book as soon as it was published, and then disappear for a day or two as they immersed themselves in it.

So if we are finding it difficult to get students to think critically, I think we need to look elsewhere than some supposed change in young people’s DNA whereby the gene determining intellectual rigor and stamina has apparently been supplanted by the need to purchase the latest game controller. Instead, we need to take a long, hard look at how critical thinking is explained and taught. Having worked with students at widely varying stages of educational preparedness—from adult nonreaders to precollege developmental students with a very poor grasp of reading and writing, right up to doctoral students at Harvard University—I have been struck by what is similar across these contexts in terms of how people learn to think critically, rather than with what is different. Differences exist, to be sure, in the level of materials that can be used, but the essential dynamics of how you sequence curricula incrementally to support the development of critical thinking remain the same. So, too, do the dynamics of teaching it; for example, a group of precollege, developmental students struggling to understand the simplest passage in a college orientation handbook, or a group of doctoral students struggling to comprehend Foucault, both look to their teachers to model a critical engagement with a text and to show how they also sometimes struggle to understand what an author is saying.

In *Teaching for Critical Thinking* I build on my last three decades of experience running workshops and courses on critical thinking
to explore how students learn to think this way, and what teachers can do to help students develop this capacity. In writing the book I’m very aware (as I outline in Chapter Two) that notions of exactly what constitutes critical thinking vary significantly across disciplines. Of the different intellectual traditions informing this idea, it is the critical theory tradition that has had the biggest influence on me, followed by the tradition of American pragmatism. But I didn’t want to write a book that explored only how critical theory conceived of critical thinking. If you’re interested in reading my work in that area, The Power of Critical Theory: Liberating Adult Learning and Teaching (2004) and Radicalizing Learning: Adult Education for a Just World (coauthored with John D. Holst, 2010) both explore this territory.

I wrote this book as if the readership were the same as the typical group of faculty who show up to workshops I run at most campuses I visit. I usually have instructors attending from every disciplinary area and department represented in the school. Biologists are next to theologians, mechanical engineers next to women’s studies instructors, mathematicians next to romance language teachers, business educators next to art historians, and so on. In such an environment I have to be able to talk to people in a language that is generic enough to foster a shared understanding of critical thinking, and in a way that helps them adapt general principles to specific disciplinary contexts. There’s little point in running a workshop on critical thinking if no one can actually agree on what constitutes that kind of thinking, and if only a segment of the faculty thinks the workshop has any relevance for their discipline. So much of the early part of this book tries to establish some general protocols of what critical thinking is, and how it can be taught, that make sense across widely varying disciplinary areas.

I’ve tried to write this book in a personal, relaxed, conversational style. I’ve used contractions, written in the first person, and as much as possible I’ve tried to keep extensive bibliographic
references to a minimum. Essentially, I’ve tried to write the book in the same tone that I would speak to a group of colleagues. As I wrote I tried to imagine I was having lunch or coffee with a group of college teachers from different disciplines, and I was trying to answer the questions they had about how to get their students to think critically. So if you want a book written in a third person manner in which the author’s biases and experiences are held in check and each point is extensively referenced, this is not the book for you. There are plenty of other texts out there that will be much more along the lines you seek. But if you want a text in which the author is engaged in a personal conversation with you, and academic jargon is put on the backburner and only used when absolutely necessary, then I hope this will meet that description.

Whenever I go to any professional development activity, I always feel my time has been well spent if I’ve learned something new I can try with my students. That’s the spirit in which this book is written. I’ve tried to cram into its pages as many practical activities, exercises, protocols, techniques, and specific suggestions as I could. My assumption is that anyone who reads this will want to walk away with some new ideas about what they could do differently in their classrooms, or with some additional items in their pedagogic tool kit or back pack that they can try out the next time they meet with their students. If you see anything in here that might be helpful to you, please feel no compunction at all about stealing it and changing it so it makes better sense in your own classroom. The best teachers are good burglars, contextually attuned plunderers—they are always on the lookout for something they haven’t tried before that, with a few adaptations, will work with their students. If this book gives you a few ideas you can steal and adapt then it will have been worth the effort in writing.

In the spirit of creative, contextually informed plundering let me also draw your attention to my home page: http://www.stephenbrookfield.com/Dr._Stephen_D._Brookfield/Home.html.
I’ve put pretty much all my classroom exercises up online for free download on that home page. Just go to the Workshop Materials link and scroll down the various PDF files and PowerPoint presentations and you’ll find any number of exercises and activities contained there. If you see something that looks helpful—grab it with my blessing! That’s why I’ve put it up there.

Overview of the Book

The book opens with an attempt in Chapter One to outline a basic protocol of critical thinking as a learning process that focuses on uncovering and checking assumptions, exploring alternative perspectives, and taking informed actions as a result. I explain three different categories of assumptions—paradigmatic, prescriptive, and causal—and I argue that assumptions are rarely universally right or wrong, but that they are more or less contextually appropriate. Throughout the chapter I try to draw on my own experience of using critical thinking to help me deal with clinical depression as a way of concretizing what can sometimes be an abstract idea.

Chapter Two then looks more closely at the different intellectual traditions informing the idea of critical thinking. One of the problems in holding conversations with colleagues about how to get students to think more critically is that different conceptions of what critical thinking looks like are held by teachers in different disciplines. I explore five different interpretations of this idea framed by, in turn, analytic philosophy and logic, the hypothetical-deductive method in the natural sciences, pragmatism, psychoanalysis, and critical theory. Where possible, I try to show connections between these traditions and to argue that aspects of the basic protocol outlined in Chapter One can be found in all of them.

Attention turns in Chapter Three to a crucial question: what do students say are the teaching methods and approaches that most help them learn to think critically? Drawing on thousands of
student testimonies, many of which have been documented in students' Critical Incident Questionnaires (CIQ), I identify five major themes that seem to hold true across different contexts for learning. These are (1) that critical thinking is best experienced as a social learning process, (2) that it is important for teachers to model the process for students, (3) that critical thinking is best understood when grounded in very specific events or experiences, (4) that some of the most effective triggers to critical thinking are having to deal with an unexpected event (or disorienting dilemma, as it is sometimes called), and (5) that learning critical thinking needs to be incrementally sequenced. Students like to learn to apply the process to relatively impersonal situations or data and then, slowly over time, bring the process to bear more and more on their own direct thinking.

What the opening steps of a critical thinking course or program might look like is outlined in Chapter Four. I look at when teaching critical thinking should be a focus, how to build a case for critical thinking to students who are skeptical about it, the use of clickers and hand held devices, and how to use the Scenario Analysis approach as a beginning exercise that can be adapted across disciplines. Chapter Five then looks at how to move to more complex critical thinking protocols such as Crisis Decision Simulation, Critical Debate, Exemplars and Flaws, and Quotes to Affirm and Challenge. It ends with a description of a highly complex exercise, the Critical Conversation Protocol.

In Chapter Six the focus shifts to how to encourage critical reading and writing. I try to dispel some common misconceptions about what it means to read critically, and then review what should be the basic components of a critical review of a text. These components are that (1) the student understands the text in the terms the author sets for it, (2) the student can conduct a critical analysis of it, and (3) the student can take a position regarding its relative merit in a field of inquiry. Each of these three components is then broken down to its constituent elements. The chapter then turns
to how to teach students to write more critically. I explain how to give highly specific feedback to students, including the use of Color Coded Critical Feedback, the Hatful of Quotes exercise, the Peer Writing Protocol, and the role of faculty modeling. The chapter ends with me doing a critical appraisal of a couple of passages from one of my own books—*Becoming a Critically Reflective Teacher* (1995)—to model for readers the same approach I am describing in the classroom.

One of the problems with making critical thinking a generic student behavior is that its implementation is spotty, varying from unit to unit, department to department, and school to school. In Chapter Seven I explore how to embed a general protocol of critical thinking across an institution. I begin by suggesting how a general definition of critical thinking can be crafted, and then examine what a Freshman Seminar on critical thinking might look like. I then return to the problem of how to build a case for critical thinking that was visited in Chapter Four, and this time I go into more depth about how this might be accomplished. I then look at how critical thinking can be incorporated into specific course assignments, how to introduce it in the syllabus, how to create connections between subject matter content and this kind of thinking, how to embed Critical Thinking Audits into assignments, and how to make such thinking part of the capstone experience.

Chapter Eight revisits in more depth the ways in which critical thinking is a social learning process, and it reviews ways in which typical classroom discussions can be conducted with a more critical edge. I outline what a critical discussion looks like and then look at some specific activities that can be crafted for critical thinking. These are the Circle of Voices, Circular Response, Chalk Talk, Spot the Error, Structured Silence, the Inferential Ladder, and the Appreciative Pause. The chapter ends with examples of discussion questions that encourage critical thinking, questions that uncover evidence, and questions that generate multiple perspectives.