Teaching students to truly read and understand a text is essential to their intellectual survival in a complex world, says Linda Elder

Implanting the desire to think critically

About 15 years ago, while teaching psychology, I happened upon an article on critical thinking. I had long been interested in the workings of the human mind, but I lacked the broader perspective on the mind that a rich conception of critical thinking can offer. What I was certain of is that I was dissatisfied with my teaching. I felt I had a reasonably sound grasp of psychology, but no clear path for reaching my students. I knew that the art of questioning was an important instructional approach, and that written assignments should be an integral part of teaching. I just didn’t have the tools to serve the purpose.

Once introduced to critical thinking, my perspective broadened dramatically, as tools for developing the mind became much more vivid, accessible and concrete. By studying the theory of critical thinking and tenaciously applying it to classroom practice, I began to see more clearly how to approach content as a mode of thought, rather than as fragmented bits of information. I began to see the intimate connection between thinking and learning, to see how to intervene in thinking deliberately and constructively to deepen one’s understanding, and to interface the content of my subject with the values and motivations of students.

I also began to appreciate the difficulties in cultivating the intellect – both my own and that of others. When it is deeply understood, critical thinking offers a network of concepts and principles for developing the mind. There are copious effective strategies for fostering critical thinking, but developing the human intellect is a messy process. It is often confusing, both for teacher and student; it isn’t procedural, it can’t be taught through formulas. It isn’t neat and tidy. But it is deeply rewarding when we grasp its significance and begin to work it out for ourselves.

In 1980, Richard Paul, a pre-eminent authority on critical thinking, established the Center for Critical Thinking, and the same year the Center hosted its first international conference. Since then, the Center has worked towards the cultivation of critical societies through the reform of education. In 1990, in an open letter to educators, Paul summed up the problem that a robust conception of critical thinking addresses.

“Many college and university professors say they have little time to focus on the students’ thinking because of the need to cover content. These professors fail to see that thinking is the only means by which the mind digests content. They fail to see that undigested content is content unlearned or mislearned. They fail to see that all content is embedded in ideas, that ideas have logical connections, that logical connections must be thought through to be grasped... Furthermore, though this problem is ancient, the negative consequences are daily becoming more and more significant. The nature of professional and everyday life increasingly demands critical thinking. Indeed, the cost of generating a growing mass of uncritical thinkers as workers and citizens is staggering... Intellectually undisciplined, narrow-minded thinking will not solve increasingly complex, multidimensional problems, let alone provide the basis for democratic decision-making.”

Critical thinking forms the heart and soul of every subject because its concepts and principles are presupposed in, and give rise to, the logic of every subject. Accordingly, teachers use critical thinking concepts in approaching their disciplines (albeit often implicitly and subconsciously).

If we are to effectively address the challenges facing us as a species, and if we are ever to create truly critical societies, we need to take thinking more seriously in every part.
If we are to address the challenges facing us as a species, and if we are to create critical societies, we need to take thinking more seriously in every part of human life, certainly in teaching.

of human life, and certainly in teaching. When all is said and done, however highly we may rate our educational programmes, schools, colleges, universities, and yes, even our own classes, students are not developing the intellectual skills and character traits they need to survive in an increasingly complex world.

Thankfully, critical thinking is accessible, to some degree, to all who would enter its doors. From the beginning, the basic principles are fairly easy to grasp. What is more, the process of translating principles into strategies is reasonably accessible. At the Center and Foundation for Critical Thinking we have developed many resources for incorporating critical thinking into instruction, tested over many years with students and faculty. Of course, teaching for critical thinking is an art, not a science; there are an unlimited number of ways to cultivate the intellect.

Let me offer, by way of example, one set of instructional activities I have found to be highly effective in fostering critical thinking. These activities are most powerful when repeatedly used within a term, focusing on the core content of the course. Collectively, these structures develop students' abilities to read closely, write substantively and analyse reasoning. They enable students to empathise with a broad range of views, even (perhaps most importantly) with those views contrary to their own. These activities illuminate for students the fact that articles, chapters, essays and other written works should be viewed as products of reasoning, which in most cases, can be deliberately analysed and assessed.

There are four parts to this instructional process. As you read through this series of activities, remember that any of the details can and should be contextualised to fit the situation, student group, and so forth.

Part one: reading closely
Students are often asked to read, but generally do not understand what it means to read closely. They do not understand that to do so presupposes disciplined reasoning. Students seldom use reading to improve their thinking or thinking to improve their reading. They don’t see the connection between thoughtful reading and living the life of a reasonable person. I introduce close reading to students by first explaining that to read for deep understanding, they must learn to actively engage in a silent dialogue with the author. I emphasise that, to become educated people, it is essential they develop their ability to read for deep understanding and consistently do so throughout the course of their lives.

In this activity, then, the purpose is to teach students how to read a text closely. The basic design entails students working together in groups, focusing on an assigned text. Essentially students take turns reading the text aloud, interpreting it, and then getting feedback from the other group members on their interpretation. Here is the structure I suggest:

- Students working in groups of three are assigned a text to read together. Student A reads one paragraph aloud, periodically stopping and stating in her own words what she understands from each sentence. After each act of interpretation, students B and C either agree with the interpretation or offer a different interpretation. Then student B takes the next paragraph, and the same process continues (with A and C giving feedback on each interpretation). Student C takes the next paragraph, and on it goes with one student reading, interpreting and receiving feedback from the other two students on the original interpretation until you (the teacher) end the activity or the reading is complete.

Before beginning this assignment, I remind students that the process should entail mutual participation and support, rather than passivity or conflict. The idea is to work together toward the most reasonable interpretation of the text. I may, as I often do, model the kind of feedback I am looking for from students. For instance, I may say something like “I am interpreting this a little differently than you seem to be doing. I agree with this part of your interpretation, but in this sentence, I think the author means X rather than Y. Do you agree, or are you still seeing it another way?”

Part two: analysing the text
Once students are able carefully to read a text, they are in a position to analyse it. It is important for them to understand that any essay, article or chapter in a text can be explicitly analysed as a product of reasoning. Here are the primary questions I ask students to answer in analysing the text (in a written assignment):

- What is the author's fundamental purpose?
- What is the author's point of view with respect to the issue?
- What assumptions is the author making in his or her reasoning?
- What are the implications of the author's reasoning?
- What information does the author use in reasoning through this issue?
- What are the most fundamental inferences or conclusions in the article?
- What are the most basic concepts used by the author?
- What is the key question the author is trying to answer?
The nature of professional and everyday life increasingly demands critical thinking. The cost of generating a growing mass of uncritical thinkers as workers and citizens is staggering.

Part three: sharing papers and giving feedback to one another

After students have completed part two as an out-of-class assignment, they are ready to give and receive feedback on their papers. Working in groups of three, students take turns reading their papers aloud, periodically stopping to allow other students to give feedback. It is essential that, in giving feedback, students use intellectual standards – for example, clarity, accuracy, relevance, depth and breadth. In this activity, the students are focused on helping one another to become clearer in their writing, better able to represent accurately what the author is saying, more deeply understand the author’s argument, more logically present the author’s reasoning, and so forth.

When students are working in groups, I monitor and encourage the accurate assessment of thought. Thus, I will periodically stop the feedback process and again model the thinking I would like to see. I may say, for example: “Nina commented on the lack of clarity in Josh’s purpose. This is what I am looking for – the explicit use of intellectual standards.” Or, “Seth pointed out that some of the information mentioned by Susan wasn’t actually in the text. This was a good intellectual move. I suggest that the group now look at the original text for information that Susan can include.”

Part four: speaking in the voice of the author

Having closely read and analysed the text and compared written analyses with those of other students, students are now in a position to role-play the thinking of the author. Role-playing an author is, in one way, the ultimate test of understanding, by saying in essence: “I will enter the mind of the author and speak as if I were the author. I will discuss any questions you may have about the author by adopting the voice of the author and will answer your questions as if I think the author would. I will speak in the first person singular. I will try to be the author fully and truly for the purpose of this exercise, even if, and most especially if, I disagree with the author.”

To role-play an author, students need a partner who has read the text and is willing to ask important questions about it. Responding to questions forces students to think within the author’s logic. Practising speaking within the voice of an author is a good way to get a sense of whether students have absorbed the core meanings of a text. In this activity, one student takes the role of the author, speaking in the first person. The other student asks probing questions, using the questions in part two as guidelines. The student who is questioning will lead the discussion, perhaps beginning with the first question, “What was your purpose in writing this article about people who live in absolute poverty?” This question might be followed up by any of the following questions: “What were you assuming about this issue when you wrote this article?”, “What information did you use in coming to your main conclusions?”, “Was there any essential information relevant to the issue that you might have excluded, either intentionally or not?”, “What is the main idea you are trying to communicate to people?”, “If people take your line of reasoning seriously, what will be some important implications?”, “If people fail to take your line of reasoning seriously, what will some of the important implications be?”

When we approach teaching with activities like these, using critical thinking principles to process academic content, we honour and develop the intellects of students. We engage them in the thinking we want them to do. We help them recognise that the only way to learn any important set of ideas is to think those ideas into their thinking using their thinking, and to do so critically. With such an approach, we do a lot of modelling; but we place the responsibility for learning on students’ shoulders. Most importantly, we help them develop the intellectual skills, ability and character they need to reason through virtually any problem or issue, in any subject or discipline. We help them gain the intellectual tools they need to survive successfully and fairly-mindedly in the complex and unpredictable world they face.

Linda Elder is an educational psychologist, and president and fellow of the Foundation for Critical Thinking, a non-profit organisation that seeks to foster critical societies through education and social reform.