A Working Model of Critical Thinking in ELT

This book focuses on the role of critical thinking in the English language classroom, showing how it can be used to achieve a greater understanding of individual words and sentences, of longer pieces of discourse, of ideas, and of different means of communication. To accomplish these goals, we will set out a framework (or working model) that helps ELT teachers understand the role of critical thinking in the context of their lesson aims, classroom practice, and materials design. Our working model will also present critical thinking in relation to other lower-and higher-order thinking skills, so that the reader can more easily identify what critical thinking is and what it is not.

Essentially, critical thinking activities are those parts of a lesson or exercise that require a learner to inquire more thoroughly about language or ideas in order to achieve a better understanding: to ask, *What is really going on here?* Take the example of a reading comprehension lesson. Asking a learner if certain statements about a passage are *true* or *false* will check a learner's basic comprehension (i.e., *What did the author say?*). If, however, we ask learners to choose *true*, *false*, or *not enough information given* for the same statements, we open up a whole new space for deeper inquiry. Learners will have to distinguish between information that may be implied or is generally true, but that is not actually stated in the text. They may ask, *Why has the author chosen to address this issue and not another? What are the author's real intentions? Is he or she motivated by a particular bias?* And so on.

Core Beliefs

The working model for critical thinking in ELT that we present is underpinned by three core beliefs about language learning:

- Effective language learning involves a balance of higher and lower order thinking skills.

- No one type of thinking (lower or higher order) is inferior or superior. Rather, educators and teachers should strive to achieve a balance between them.

- Critical thinking plays a key role in the deeper processing and production of language.

Throughout this chapter and the rest of this book we demonstrate how these core beliefs can have a positive impact on English language teaching and make the learning process both more effective and more engaging.

What is critical thinking?

One of the problems with discussing critical thinking is that no single definition prevails. That is not to say that people struggle to give an explanation of what it means, but simply that they frame it in different ways, as our own survey illustrates (see Appendix D).

▶ ASK YOURSELF 1.1

As part of our research, we asked teachers and educators in the field of ELT to participate in a survey, which we refer to throughout the book. One of the survey questions asked participants to complete the sentence "Critical thinking is …" using their own words.

1. First, complete the sentence "Critical thinking is …" with your own definition.

2. Now, read the short sample of responses below and ask yourself:

- Which responses are similar to my own?
- What, if anything, do these definitions have in common?

Critical thinking is _____

_____

Here is a selection of the answers we received:
Critical thinking is …
   "a useful tool to improve students' knowledge about language."
   "the ability to connect ideas to form an opinion or to reach a decision."
   "a way to improve study skills."
   "an ability to think, reflect, and analyze an argument."
   "being able to see things from a different perspective."
   "questioning everything in order to distinguish true facts from fake information."
   "using higher-level thinking rather than just relying on memorization or rote learning.
   "students working out answers rather than being dependent on the teacher."
   "the ability a person has to observe reality from a unique perspective that does not necessarily fit into the mainstream narrative society promotes worldwide."

Looking at the academic literature on critical thinking, one finds the same lack of consensus on a definition. Some sources highlight its metacognitive aspect: "Thinking about one's thinking in a manner designed to organize and clarify, raise the efficiency

of, and recognize errors and biases in one's own thinking" (Carmichael, 1997). Other sources focus on its rational aspect: "The objective analysis and evaluation of an issue in order to form a judgement" ("Critical thinking," 2018). This variety of definitions has led some people to claim that *critical thinking* is a loose term, more of a cultural buzzword than a clearly defined educational concept (Davidson, 1998). Others say that the absence of an established definition "acts as a barrier" to teaching critical thinking (Crenshaw, Hale, & Harper, 2011, p. 13). This is unfortunate, since a closer examination of the definitions actually reveals a large amount of overlap and consensus, in which three themes recur. Together, these three themes lead us to a clearer picture of what critical thinking is.

The three Rs of critical thinking

The first theme is that critical thinking involves *reflective thinking,* the habit of questioning assumptions and inquiring more deeply. John Dewey, who is credited with coining the term *critical thinking*, said, "If the suggestion that occurs is at once accepted, we have uncritical thinking, the minimum of reflection. To turn the thing over in mind, to reflect, means to hunt for additional evidence, for new data, that will develop the suggestion and will either ... bear it out or else make obvious its absurdity and irrelevance" (Dewey, 1910).

Various attempts have been made at compiling lists of what questions a critical thinker should ask. These lists range in length from three items (*Why? What if? What else?*) (Kourdi, 2009), to as many as seventy items (Harris, November 12, 2012). The usefulness of such prescriptions is open to debate. What is significant about them is that they underline this key aspect of critical thinking—that it demands we reflect on and explore more deeply the information and arguments presented to us.

The second theme is that critical thinking implies *rational thinking*, the ability to follow arguments in a logical and disciplined way (Siegel, 1985; Cottrell, 2005). Unsurprisingly, this aspect of critical thinking is the one most commonly emphasized by universities, especially when instructing students on how to do research and write essays. The philosophy faculty of the University of Hong Kong (2018) states that "critical thinking is the ability to think clearly and rationally about what to do or what to believe." The goal is to create thinkers who are, as Siegel (1985) puts it, "appropriately moved by reasons" and who "grasp the relevance of various reasons for judgements and evaluate the weight of such reasons properly."

Closely connected to the second theme is the idea that critical thinking requires a *reasonable approach*, where individuals keep an objective, open mind and are

sensitive to what is fair and balanced. Robert H. Ennis's (March, 1992) often cited definition describes critical thinking as "reasonable reflective thinking focused on deciding what to believe or do." The British philosopher Bertrand Russell (April, 1959) said that when studying any matter, we must ask ourselves "what are the facts, and what is the truth that the facts bear out. Never let yourself be diverted, either by what you wish to believe, or what you think could have beneficent social effects if it were believed; but look only and surely at what are the facts." Few would argue with these sentiments. However, in reality we may not always be able to make judgments based solely on facts, since often those facts are incomplete or unavailable to us at a given time. In these instances, the critical thinker must either reserve judgement or try to arrive at a conclusion that is *reasonable*, in other words, a conclusion that is as free from bias and prejudice as is possible.

To sum up, in our working model, we would like learners to view critical thinking as a mindset that involves thinking *reflectively* (being curious), *rationally* (thinking analytically), and *reasonably* (coming to sensible conclusions). Critical thinking skills are not just a box of tools to be used when needed and then put away, but derive from a mindset that involves seeking knowledge in a particular way. A critical thinker's skills are in continual use, not just as an exercise, but as part of a considered and holistic approach to learning (National Council for Excellence in Critical Thinking, 1987). Just one note of caution here: This mindset, which Dewey (1910) called a "healthy skepticism," does not mean a subversive or cynical approach. Rather, it simply means a curious and considered one. The idea is not to challenge ideas aggressively, but to seek to understand how these ideas were arrived at.

> ▶ *We would like learners to view critical thinking as a mindset that involves thinking reflectively, rationally and reasonably.*

We believe that teachers should stimulate and nurture this mindset by integrating critical thinking activities into their lessons. A good way to explore to what extent your students already possess a critical mindset is to do an activity like Activity 1.1, which has been adapted from Debra Hill's book *Student Essentials: Critical Thinking* (2011). It can raise learners' awareness of critical thinking in general or can be used to promote critical thinking in students as they prepare for a debate or write an opinion essay. The prompt can be any controversial statement and can be adjusted according to the level of the students.

ACTIVITY 1.1

Level: B1–C1

Language aim: to raise awareness of the importance of critical thinking

1. **Choose the response (a–f) that most honestly matches your initial reaction to this statement:**

   People these days spend so much time recording their experiences on digital media that they forget to enjoy the experience itself.

   a. I'm not interested in this topic.

   b. I agree that it's true.

   c. I disagree. It's false.

   d. I agree/disagree because …

   e. I'm not sure. I need to think more about it. Who said this, for example?

   f. I agree/disagree because … However, I'd like more evidence to see if my initial reaction is a reasonable one.

2. **Now look at what your response might mean in terms of how critically you are thinking about this question:**

   a. How can you be sure you are not interested in this topic until you examine it in some way?

   b, c. You have an opinion, but what informed that opinion?

   d. You have an opinion and you have reasons for it. But are you sure that your reasons are not prejudiced in some way?

   e. It's encouraging that you want to reflect on this more deeply.

   f. Great! You have reasons for your opinion, and you want to test them to see if they are well-founded.

Higher- and lower-order thinking skills

In order to understand how critical thinking occurs within a language learning exercise or lesson and so arrive at a working model, we need to see it in the context of other thinking skills involved in learning. In other words, as well as describing activities that demand critical thinking, we need to describe activities that draw on other cognitive processes.

For this, we start with the work of Benjamin Bloom and others who have created taxonomies for thinking. In particular, we need to consider the notion

of *higher-order* and *lower-order* thinking skills, since these are commonly used reference points for framing educational curricula. It is important to stress from the outset that higher-order thinking does not imply superior thinking skills and lower-order inferior ones. Each is an important element of learning in its own way.

Bloom's taxonomy

In his 1956 work, *A Taxonomy of Educational Objectives, Handbook 1: Cognitive Domain*, Bloom investigated how different types of thinking lead to learning. His work sought to build a classification of learner behaviors "in the cognitive domain." Bloom's taxonomy was cumulative: that is to say, each behavior or mental process was built upon the preceding one, starting with the simplest and ending with the most complex (see Figure 1.1). First came *knowledge*, without which you could not have *comprehension*, then followed *application*, *analysis*, *synthesis*, and finally *evaluation*.
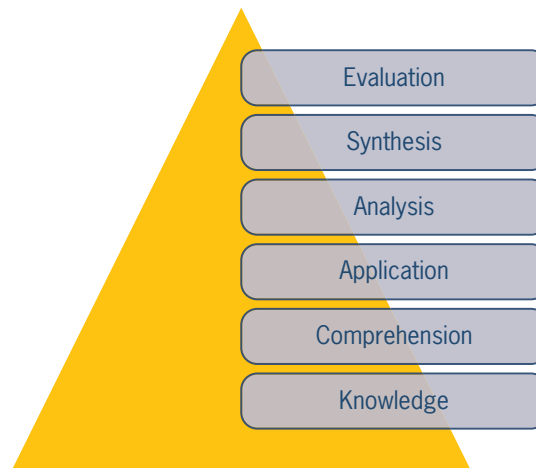
Fig 1.1 Bloom's original taxonomy

Using this classification, educators observed that there was an imbalance in educational programs: the great proportion of learning time was being spent at the level of knowledge and comprehension, and very little time was spent on analysis, synthesis, and evaluation—"the higher mental processes that would enable students to apply their knowledge creatively" (Bloom, 1994, p. 1). While Bloom (1956) himself never used the term "critical thinking"—instead, he referred to "intellectual abilities and skills"— his work stimulated an interest in how educators could more explicitly incorporate higher-order thinking skills in their programs.

> ▶ *Bloom's work stimulated an interest in how educators could more explicitly incorporate higher-order thinking skills in their programs.*

In 2001, Bloom's colleague David Krathwohl and student Lorin Anderson revised the taxonomy by classifying the thinking skills as shown in Figure 1.2. In their schema, the different thinking skills were described using verbs rather than nouns, and were no longer seen as cumulative and hierarchical. Even though the six cognitive levels are still arranged in order from lower to higher as in Bloom's original taxonomy, Krathwohl and Anderson preferred to see these different skills as being of equal value, and employed at various times in learning.

Cognitive Processes

Remember	Understand	Apply	Analyze	Evaluate	Create

Fig 1.2 Krathwohl and Anderson's taxonomy of thinking skills

What follows is a summary of what Anderson and Krathwohl meant by these skills. We present and illustrate each cognitive level using examples from the language classroom.

- *Remembering* involves students recognizing and recalling what has been taught. This could be tested, for example, by having students match a list of eight words to their definitions. Alternately, in a reading lesson, *remembering* could be tested by having students answer *Who*, *What*, and *When* questions, that is, questions that elicit a recall of key words and facts.

- *Understanding* involves students constructing meaning by connecting new knowledge with existing knowledge. For example, in the ELT classroom a teacher could show students the rule for forming regular verbs in the simple past tense. As a result, students understand that when they see a verb ending in –*ed*, it indicates a past action. Because they already know the base form of various verbs and the present tense, they are now able to distinguish between past and present actions in reading or listening exercises.

- *Applying* involves students testing out this newly gained knowledge, usually in a controlled way. Examples of *applying* include having students take a phrase heard in a recorded dialogue and use it in a similar dialogue with a partner. In many ways, the *applying* stage represents the first step toward the use of language for real communication.

- *Analyzing* involves students breaking concepts down into individual parts and seeing how they contribute to overall structure or meaning. At this point we move into so-called higher-order thinking—what Anderson and Krathwohl (2001) call—"an extension of *Understanding*" and a "prelude to *Evaluating* or *Creating*" (p. 79). Examples of *analyzing* include reading an argument and identifying supporting evidence or connecting questions with conclusions. *Analyzing* can take place at text level, as in the above examples, or it can take place at the word or sentence level, for instance, when students try to work out a grammatical rule from language in context.

- *Evaluating* involves students making judgments based on their own or someone else's criteria. *Evaluating* naturally flows from *analyzing*. It is in these two levels of higher-order thinking that we see classroom activities that are typically described as critical thinking tasks, especially in the receptive skills of reading and listening. Examples of such tasks include having students analyze a text to identify the different arguments, and then evaluate which are the most and least convincing; or having students solve a problem collaboratively by discussing the merits of different solutions, and then selecting the best plan of action to follow. *Evaluating* also includes checking and critiquing others' work, for example, watching peers give a presentation and then giving feedback on its communicative effectiveness.

- *Creating* might suggest learners coming up with something wholly original or unique using language and concepts they have learned. In fact, this term describes the ability to synthesize knowledge "to form a new whole" (Anderson & Krathwohl, 2001, p. 85). In the language classroom, this is often what is called the *production* or *free-practice stage* of a lesson. Examples of *creating* might include telling a story, giving a presentation, taking part in a role play, or writing a paragraph or essay.

The first three types of thinking (remembering, applying and understanding) are what have come to be known as lower-order thinking and the latter three (analyzing, evaluating and creating) as higher-order thinking. Central to Anderson and Kratwohl's revised taxonomy was the idea that the different types of thinking are part of a continuum in which the levels overlap and flow back and forth from one to the other (Krathwohl, 2002). In this way, their classification reflects more closely the reality of classroom practice: Teachers initiate tasks that practice different thinking skills at different times, and sometimes more than once, in no particular order. This is a view we agree with.

It is worth noting here that although many people equate critical thinking with the skills of *analyzing* and *evaluating*, Anderson and Krathwohl themselves make no such assertion. Rather, they say that classroom activities that could be described as critical thinking "most likely call for cognitive processes in several categories; … critical thinking and problem-solving tends to cut across the rows" (Krathwohl, 2002, p. 267).

A working model for critical thinking in ELT

The six thinking processes characterized by Anderson and Krathwohl seem, at first, apt descriptions of activities that take place in the language learning classroom. However, if we adhere too closely to the six levels as a way of framing critical thinking in ELT, we very soon run into trouble. Questions are raised that are difficult to answer: *Is understanding really a lower-order thinking skill? Aren't the skills of analyzing and evaluating part of understanding? What is the difference between applying knowledge and creating?* These are gray areas. Accordingly, our own framework (Figure 1.3) classifies the thinking processes that need to be considered into three broader levels: *basic comprehension*, *critical thinking*, and *creative thinking*. The levels overlap, with the weight given to each in a typical lesson reflected in the space it occupies in the diagram. Much of what is traditionally done in language teaching is at the level of basic comprehension, and often less time is devoted to critical thinking and creative thinking.
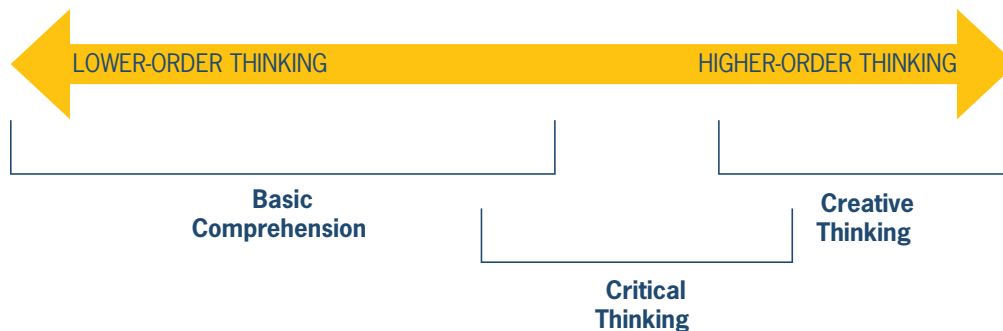
Fig 1.3 A working model for critical thinking in ELT

To understand better the distinction between critical thinking and the other two skills in our framework, here is an overview of what we mean by basic comprehension, critical thinking, and creative thinking in an ELT context.

Basic comprehension

By basic comprehension, we mean understanding the essential meaning of a word, sentence, text, or idea. In many cases—for example, reading a cooking recipe, learning the meaning of a concrete noun (e.g., *warehouse*), or interpreting a sentence such as *I leave the house at 6:30 in the morning to drive to work*—basic comprehension will suffice. There is little to be gained from further reflection or analysis. Teachers devote a great deal of classroom time to helping students comprehend language and ideas at this basic level: matching words or phrases to pictures, answering true or false questions about a reading text, discussing what sports people like to play, and so on.

> ▶ *By basic comprehension, we mean understanding the essential meaning of a word, sentence, text, or idea.*

Included in the idea of basic comprehension is testing learners' ability to recall and then apply language in a controlled way to show that they have learned it. This could be something as simple as completing a sentence with a missing word: *The products are stored in a large _____ for distribution around the world.* (answer: *warehouse*). Alternately, it could be a more demanding activity, such as students working in pairs and repeating to each other the steps in a cooking recipe.

This lower-order thinking, which we can broadly refer to as *basic comprehension*, will seem familiar to most teachers around the world. It links in with a historical model of teaching where students are presented with new language, then practice it in a controlled way, and finally try to produce it in a more open (or personalized) context to demonstrate they have "learned" it. This sequence is illustrated in the exercises in Activity 1.2.

ACTIVITY 1.2

Level: B1

Language aim: to teach phrases related to sports and free-time activities using the verbs *go, play, do*

1. **Match the words to the pictures**.

   play soccer   do yoga   go fishing   go swimming   do ballet   play chess   play golf

2. **Complete each sentence with the correct form of the verbs *go, play, or do*.**

   a. I don't like _____ golf. It's a sport for old people.

   b. We _____ swimming yesterday at the new pool at the park.

   c. My mother _____ yoga. She says it helps her relax.

   d. Shall we _____ fishing at the weekend?

   e. I can _____ chess, but not very well.

   f. I _____ ballet when I was younger, but I gave it up.

   g. Do you _____ soccer every weekend?

3. **Work in pairs. Tell your partner about an exercise or sport that you like to do.**

There is nothing wrong with these activities as a way to ensure basic comprehension. However, an opportunity has been missed to get students to engage with the language at a deeper level. The danger is that by not going beyond this lower-order thinking, new language will not be learned as effectively or remembered as well. This is where critical thinking comes in.

Critical thinking

Critical thinking, as we saw earlier, is a mindset that entails thinking reflectively, rationally, and reasonably. This mindset enables learners to arrive at a deeper understanding of the target language, of ideas, and of the way that those ideas are

communicated. It also helps them to reach a point where the language learned can be applied in a more judicious and effective way.

Typically, it is associated with higher proficiency levels of English (B1+ level and above). However, as the activities in this book will demonstrate, we believe it has a place at every level. We must not fall into the trap of equating lower language proficiency with lower-order thinking. Even at the A1 level, there are ways of fostering a critical mindset and incorporating critical thinking exercises into lessons.

> ▶ *We must not fall into the trap of equating lower language proficiency with lower-order thinking.*

Let us build on Activity 1.2 by adding a critical thinking element to it. Rather than simply helping students to remember this set of verb-noun collocations and then apply them in a personalization activity, Activity 1.3 shows one way we could encourage greater analysis and understanding of how these phrases work in practice. This activity could come either after the students have matched the words to pictures, or after the controlled practice activity.

Activity 1.3 helps learners to think critically about language use in order to discover for themselves a pattern in these collocations. In doing so, they move beyond basic comprehension to a deeper understanding.

ACTIVITY 1.3

Level: B1

Language aim: to guide students to a discovery about how *go, play,* and *do* are used when talking about sports and exercise

1. **Work in pairs. Answer the questions about these sports and activities. Then make a rule about when we use *go, play,* and *do.***

   play soccer   do yoga   go fishing   go swimming   do ballet   play chess   play golf

   Which sports or activities:

   a. are between two teams or two individuals trying to win?

   b. end in -ing?

   c. are not team activities and do not use a ball?

2. **Think of five other sports and activities. What verb would you use with each one? Do they all follow the rules you made?**

If we wanted to ensure this deeper processing by having students use the language to think critically about ideas, we could create a task like Activity 1.4. This could be in place of or in addition to the personalization task in Activity 1.2, Exercise 3, where students talk about the sports they like to do.

ACTIVITY 1.4

Level: B1

Language aim: to enable students to think critically about sports and exercise and express their views using the verbs *play, go,* and *do*

Complete these statements with the correct verbs. Then say which statement you agree with. Give reasons.

a. I _____ to win. That's the point of sport.

b. I _____ exercise to keep fit, not because I enjoy it.

c. Exercise should be a social activity. I only _____ team sports.

d. _____ biking, _____ swimming, _____ hiking. But don't _____ to the gym. It's not natural.

Creative thinking

Creative thinking is the process or practice of generating new and original ideas or discovering alternative possibilities. It may overlap with critical thinking or be complemented by it in cases where learners have already synthesized different ideas and then are asked to come up with something new.

▶ *Creative thinking is the process or practice of generating new and original ideas or discovering alternative possibilities.*

There are many good reasons for using creative thinking activities in the ELT classroom: They aid fluency and the production of authentic language, they do not restrict learners to right and wrong answers, and they are motivating and often fun. Sometimes, they come at the beginning of a lesson when a teacher wants to get learners to think about a new topic. For example, in a lesson where students are going to read about a child's encounter with a well-known person, the teacher can first ask this question: *Imagine you saw the president of your country in the street and wanted to speak to him or her. What would you say to get*

his or her attention? This would be an example of learners coming up with ideas more spontaneously, as there is no preceding critical thinking activity or analysis of language. Alternately, the creative thinking activity might come after a critical thinking activity, a sequence that some people argue produces better ideas. For example, if learners have to give a short talk about their main interests, they might look at someone else's presentation first, (e.g., a TED talk). They could evaluate this talk—its structure, clarity, use of examples, good and bad points—and then use the information to decide how they would like to structure and present their own ideas. In this way, they would be combining critical and creative thinking to produce more thoughtful output (see Chapter 5).

The working model in practice

Activity 1.5 illustrates what these three elements—basic comprehension, critical thinking and creative thinking—look like in a lesson, in this case, a writing lesson on book reviews. More specifically, it shows how a critical thinking element can enhance familiar classroom activities. Exercise 1 tests learners' understanding of the essential meaning of the review. In Exercise 2, critical thinking opens space for the learner to reflect on the nature and effectiveness of the review. In Exercise 3, elements of critical and creative thinking have been combined to stimulate learners to produce their own more considered and authentic output. Simply presenting a fixed model, and then having learners copy it unquestioningly, would not have allowed them any freedom to enter this more thoughtful and potentially creative space.

ACTIVITY 1.5

Level: B2

Language aim: to analyze a book review and its structure with a view to students writing their own review

1. **Read the review and answer the questions**.

   a. What kind of book is being reviewed?

   b. What is the book about?

   c. What does the reviewer like or dislike about the book?

The Bridge of San Luis Rey by Thornton Wilder

In 1714, a rope suspension bridge in Peru snaps and the five people on the bridge fall to their deaths. By chance Brother Juniper, a Franciscan monk, witnesses this tragedy. He is not only troubled by what he has seen but also troubled by why this should have happened. Why at this precise moment? Why these five people? Accordingly, he sets out to find out something about the lives of each person in order to make sense of the tragedy.

This short novel (only 124 pages long) is a beautiful reflection on the subject of destiny. It is not a true story, but some of the characters are based on real people. Written in elegant prose, each chapter describes the life of one of the five people on the bridge: from the aristocratic Marquesa de Montemayor, who longs to be back in her native Spain; to the wise Uncle Pio, whose lifelong ambition to make a star of a young actress is in the end frustrated. Our interest is not kept alive by the mystery of their deaths, but by the compelling characters that Wilder has drawn so vividly: each eccentric in their own way, and each very human in their virtues and in their faults. I cannot recommend this book highly enough.

2. **Answer these questions:**

   a. Did the review make you want to read the book? Was this the author's aim?

   b. What techniques does the author use to stimulate your interest in the book (e.g., language, organization)?

3. **Work in pairs. Discuss two other ways that you could write a book review to make it interesting to the reader. Then present these ideas to the class.**

4. **Write a review of a book you have read and enjoyed, using your preferred structure.**

Summary

Critical thinking is an approach to learning that involves *reflecting* in a *rational* way to come to *reasonable* conclusions. It encourages learners to question the information put before them, as opposed to simply absorbing it. This opens a space for deeper learning and engagement with the object of learning.

> ▶ *Critical thinking opens a space for deeper learning and deeper engagement with the object of learning.*

Learners employ different thinking skills when learning a language. These can be classified into three types: basic comprehension, critical thinking, and creative thinking. All play a key role in learning and should appear at different points within a lesson, but not necessarily in any particular order. We believe that up to now the lack of a clear working model—along with a lack of clear examples of critical thinking activities—has prevented teachers from helping learners to practice critical thinking skills to full effect.

▶ ASK YOURSELF 1.2

Open a course book to any page, or look at a lesson plan you have recently taught. Identify which parts of the material or the plan focus on:

- Basic comprehension
- Critical thinking
- Creative thinking

Now reflect on the following questions. Compare your answers with those in Appendix B.

1. How would you describe the balance between basic comprehension, critical thinking, and creative thinking in the material you chose?

2. If more time and space on the page is dedicated to one stage over another, what might be the reasons for this?

3. Do you see opportunities for critical thinking questions or activities that might have improved the lesson?